



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 09:11 AM UTC

PDB ID : 6YAI / pdb_00006yai
EMDB ID : EMD-10754
Title : Clathrin with bound beta2 appendage of AP2
Authors : Kovtun, O.; Kane Dickson, V.; Kelly, B.T.; Owen, D.; Briggs, J.A.G.
Deposited on : 2020-03-12
Resolution : 9.20 Å (reported)
Based on initial models : 1XI4, 6SCT, 1E42

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

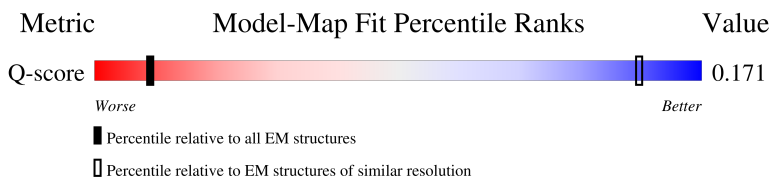
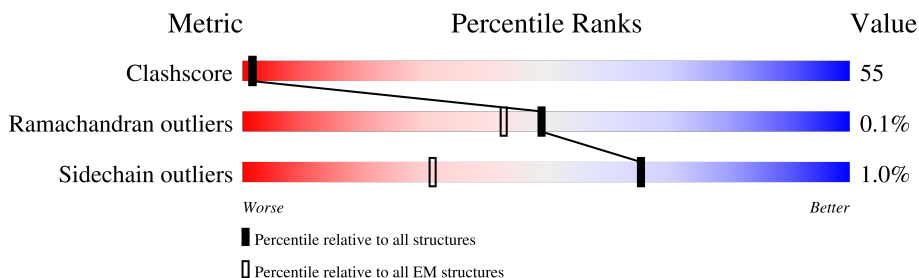
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 9.20 Å.

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













Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	239 (8.70 - 9.70)

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

Mol	Chain	Length	Quality of chain
1	A	1630	5% 18% 77%
1	B	1630	8% 20% 71%
1	E	1630	10% 8% 36% 55%
1	H	1630	• 10% 86%

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Mol	Chain	Length	Quality of chain
1	J	1630	 7% 90%
1	K	1630	 5% 11% 84%
1	L	1630	 10% 23% 66%
1	M	1630	 9% 23% 68%
2	F	233	 80% 18%
3	C	1630	 5% 24% 69%
4	D	229	 14% 32% 55%
4	I	229	 13% 12% 75%
4	N	229	 14% 21% 65%
4	O	229	 10% 16% 74%

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 35282 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Clathrin heavy chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	E	726	Total 5740	C 3660	N 981	O 1066	S 33	0	0
1	M	518	Total 4213	C 2681	N 725	O 787	S 20	0	0
1	A	379	Total 3168	C 2037	N 528	O 584	S 19	0	0
1	B	468	Total 3744	C 2357	N 652	O 717	S 18	0	0
1	J	165	Total 1379	C 875	N 227	O 269	S 8	0	0
1	K	257	Total 2150	C 1377	N 358	O 404	S 11	0	0
1	L	548	Total 4458	C 2843	N 757	O 838	S 20	0	0
1	H	236	Total 1928	C 1239	N 327	O 353	S 9	0	0

- Molecule 2 is a protein called AP-2 complex subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	F	233	Total 1844	C 1189	N 307	O 337	S 11	0	0

- Molecule 3 is a protein called Clathrin heavy chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	513	Total 4133	C 2645	N 706	O 762	S 20	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	871	THR	GLU	conflict	UNP C0MHR2

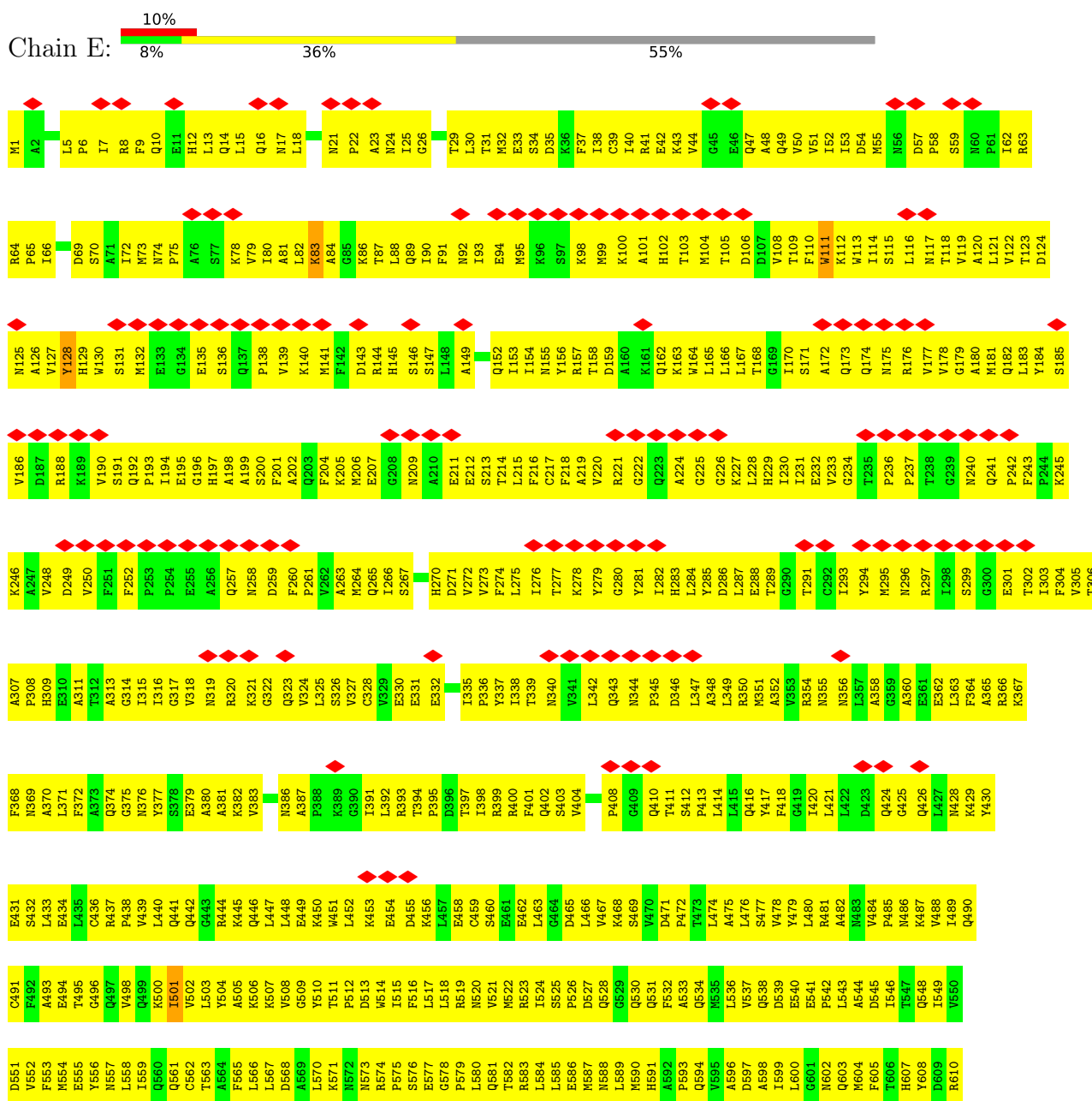
- Molecule 4 is a protein called Clathrin light chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	104	Total	C	N	O	S	0	0
			875	539	165	168	3		
4	O	59	Total	C	N	O		0	0
			514	312	101	101			
4	I	58	Total	C	N	O	S	0	0
			468	291	86	88	3		
4	N	80	Total	C	N	O	S	0	0
			668	412	123	130	3		

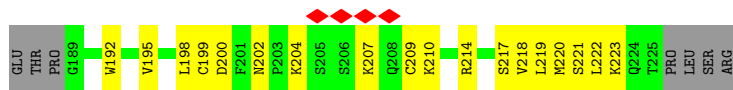
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

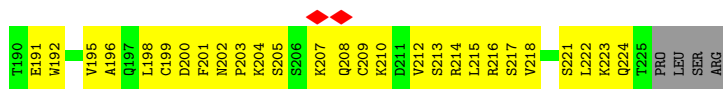
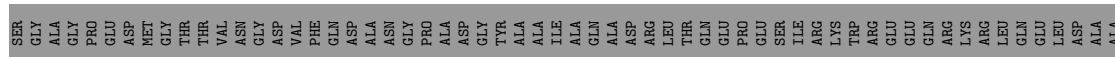
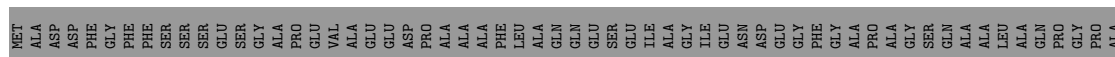
• Molecule 1: Clathrin heavy chain



ALA	ASN	VAL	GLY	ASP	THR	PHE	HIS	ASN	MET	ALA	ARG	LEU	VAL	L858	Q797	C736	R676	I613	V550	Q490	Y430	L363
ASN	VAL	GLU	ASP	THR	LEU	THR	ALA	ASN	ARG	GLY	VAL	SER	ALA	L859	K798	K737	Q677	A614	D551	C491	E431	L364
VAL	SER	GLU	THR	GLU	THR	GLU	THR	THR	THR	THR	THR	GLU	THR	P860	T799	T738	L679	Q615	F552	F492	S432	F365
THR	GLU	THR	GLU	THR	GLU	THR	THR	THR	THR	THR	THR	GLU	THR	L862	R800	R739	Q681	L616	F553	A493	L433	L366
GLN	GLU	THR	GLU	THR	GLU	THR	THR	THR	THR	THR	THR	GLU	THR	L863	R801	R740	Q682	E617	M554	E494	E434	R367
ASP	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L864	R803	K742	Q683	E618	E555	T495	L435	K366
ARG	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L865	R804	E743	Q684	E619	E556	G496	C436	F368
THR	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L866	R805	E744	Q685	E620	E557	Q497	R437	M369
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L867	R806	E745	Q686	E621	E558	V498	P438	A370
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L868	R807	E746	Q687	E622	E559	Q499	V439	L371
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L869	R808	E747	Q688	E623	E560	K500	L440	L371
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L870	R809	E748	Q689	E624	E561	I501	Q441	M376
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L871	R810	E749	Q690	E625	E562	V502	Q442	E379
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L872	R811	E750	Q691	E626	E563	L503	G443	A380
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L873	R812	E751	Q692	E627	E564	Y504	R444	A380
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L874	R813	E752	Q693	E628	E565	A505	K445	A380
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L875	R814	E753	Q694	E629	E566	K506	Q446	V383
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L876	R815	E754	Q695	E630	E567	K507	Q447	A384
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L877	R816	E755	Q696	E631	E568	K508	L448	A384
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L878	R817	E756	Q697	E632	E569	V508	L448	A384
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L879	R818	E757	Q698	E633	E570	G509	E449	A387
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L880	R819	E758	Q699	E634	E571	Y510	K450	P388
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L881	R820	E759	Q700	E635	E572	T511	W451	K389
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L882	R821	E760	Q701	E636	E573	N512	L452	G390
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L883	R822	E761	Q702	E637	E574	D513	K453	I391
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L884	R823	E762	Q703	E638	E575	I515	E454	L392
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L885	R824	E763	Q704	E639	E576	F516	D455	R393
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L886	R825	E764	Q705	E640	E577	L517	K456	T394
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L887	R826	E765	Q706	E641	E578	L518	E458	D396
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L888	R827	E766	Q707	E642	E579	L519	E458	T397
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L889	R828	E767	Q708	E643	E580	R519	W451	K389
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L890	R829	E768	Q709	E644	E581	N520	S460	I398
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L891	R830	E769	Q710	E645	E582	E521	E461	R399
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L892	R831	E770	Q711	E646	E583	M522	E462	R400
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L893	R832	E771	Q712	E647	E584	I524	L463	F401
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L894	R833	E772	Q713	E648	E585	E225	D464	Q402
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L895	R834	E773	Q714	E649	E586	P526	L466	S403
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LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L897	R836	E775	Q716	E651	E588	Q528	K468	A406
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L898	R837	E776	Q717	E652	E589	G529	S469	Q407
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LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L900	R839	E778	Q719	E654	E591	Q531	D471	P409
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L901	R840	E779	Q720	E655	E592	F532	P472	G409
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L902	R841	E780	Q721	E656	E593	A533	T473	G410
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L903	R842	E781	Q722	E657	E594	Q534	L474	T411
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L904	R843	E782	Q723	E658	E595	M535	L475	S412
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L905	R844	E783	Q724	E659	E596	L536	L476	P413
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L906	R845	E784	Q725	E660	E597	V537	L476	P413
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L907	R846	E785	Q726	E661	E598	Q538	L477	P413
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L908	R847	E786	Q727	E662	E599	D539	L478	Q416
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L909	R848	E787	Q728	E663	E600	E540	V478	Y417
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L910	R849	E788	Q729	E664	E601	E541	Y417	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L911	R850	E789	Q730	E665	E602	E542	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L912	R851	E790	Q731	E666	E603	E543	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L913	R852	E791	Q732	E667	E604	E544	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L914	R853	E792	Q733	E668	E605	E545	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L915	R854	E793	Q734	E669	E606	E546	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L916	R855	E794	Q735	E670	E607	E547	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L917	R856	E795	Q736	E671	E608	E548	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L918	R857	E796	Q737	E672	E609	E549	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L919	R858	E797	Q738	E673	E610	E550	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L920	R859	E798	Q739	E674	E611	E551	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L921	R860	E799	Q740	E675	E612	E552	Y418	Y418
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LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L923	R862	E801	Q742	E677	E614	E554	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L924	R863	E802	Q743	E678	E615	E555	Y418	Y418
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LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L927	R866	E805	Q746	E681	E618	E558	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L928	R867	E806	Q747	E682	E619	E559	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L929	R868	E807	Q748	E683	E620	E560	Y418	Y418
LEU	GLY	ASP	PRO	GLY	ASP	ASP	ASP	ASN	ASN	ASN	ASP	PRO	GLN	L930	R869	E808	Q749	E684	E621	E561	Y418	



• Molecule 4: Clathrin light chain



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	12076	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION; CTF correction in no-vaCTF with by multiplication	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	3.2	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	6500	Depositor
Magnification	81000	Depositor
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.641	Depositor
Minimum map value	-0.445	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.056	Depositor
Recommended contour level	0.07	Depositor
Map size (\AA)	284.8, 284.8, 284.8	wwPDB
Map dimensions	160, 160, 160	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.78, 1.78, 1.78	Depositor

5 Model quality i

5.1 Standard geometry i

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.33	0/3240	0.56	0/4375
1	B	0.28	0/3810	0.57	1/5160 (0.0%)
1	E	1.01	7/5858 (0.1%)	0.58	1/7941 (0.0%)
1	H	0.20	0/1965	0.50	0/2659
1	J	0.21	0/1405	0.46	0/1892
1	K	0.22	0/2196	0.50	1/2966 (0.0%)
1	L	0.25	0/4547	0.51	0/6158
1	M	0.29	0/4294	0.55	0/5820
2	F	1.05	3/1886 (0.2%)	1.14	4/2562 (0.2%)
3	C	1.03	7/4211 (0.2%)	1.10	20/5700 (0.4%)
4	D	0.24	0/887	0.43	0/1183
4	I	0.19	0/473	0.43	0/631
4	N	0.19	0/677	0.41	0/904
4	O	0.22	0/520	0.46	0/692
All	All	0.63	17/35969 (0.0%)	0.67	27/48643 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1
3	C	0	9
All	All	0	10

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	83	LYS	CD-CE	62.12	3.38	1.52
3	C	364	PHE	CE2-CZ	22.15	2.05	1.38
3	C	364	PHE	CD2-CE2	22.05	2.04	1.38
3	C	364	PHE	CE1-CZ	21.81	2.04	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	364	PHE	CD1-CE1	21.53	2.03	1.38
1	E	111	TRP	CE3-CZ3	18.08	1.92	1.38
3	C	364	PHE	CG-CD1	16.15	1.72	1.38
3	C	364	PHE	CG-CD2	15.92	1.72	1.38
1	E	111	TRP	CE2-CZ2	15.00	1.71	1.39
1	E	111	TRP	CZ3-CH2	13.56	1.74	1.40
1	E	111	TRP	CD2-CE2	11.59	1.61	1.41
1	E	111	TRP	CZ2-CH2	11.05	1.58	1.37
1	E	111	TRP	CD2-CE3	10.71	1.57	1.40
2	F	738	MET	SD-CE	-9.18	1.56	1.79
3	C	635	ASP	CA-CB	-6.19	1.45	1.52
2	F	740	MET	SD-CE	-5.64	1.65	1.79
2	F	832	MET	SD-CE	5.38	1.93	1.79

All (27) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	713	TYR	CA-CB-CG	-10.18	95.58	113.90
1	E	83	LYS	CG-CD-CE	8.55	130.96	111.30
3	C	510	TYR	CA-C-N	7.75	129.28	120.06
3	C	510	TYR	C-N-CA	7.75	129.28	120.06
3	C	538	GLN	N-CA-C	-7.15	104.37	113.23
2	F	931	TYR	N-CA-C	-6.80	103.79	111.07
3	C	654	TYR	CA-CB-CG	-6.46	102.27	113.90
3	C	536	LEU	CB-CG-CD1	-6.25	91.96	110.70
3	C	704	SER	CA-C-N	-5.85	113.16	122.17
3	C	704	SER	C-N-CA	-5.85	113.16	122.17
2	F	864	VAL	N-CA-C	-5.84	105.04	110.53
2	F	761	SER	N-CA-C	5.79	118.36	111.71
1	K	1523	GLN	N-CA-C	-5.67	106.29	113.43
3	C	490	GLN	CA-CB-CG	-5.63	102.83	114.10
3	C	457	LEU	CB-CG-CD1	-5.54	94.07	110.70
3	C	679	LEU	N-CA-C	-5.52	102.48	111.04
3	C	638	ARG	CG-CD-NE	5.31	123.69	112.00
3	C	701	LEU	CA-CB-CG	-5.25	97.92	116.30
3	C	364	PHE	N-CA-CB	5.19	117.60	110.07
3	C	638	ARG	CB-CG-CD	-5.18	99.38	111.30
1	B	1200	GLN	N-CA-C	-5.16	106.11	112.72
2	F	924	SER	N-CA-C	5.16	117.30	111.11
3	C	698	LEU	CA-CB-CG	5.11	134.19	116.30
3	C	476	LEU	CA-CB-CG	5.09	134.10	116.30
3	C	858	LEU	CA-C-N	5.04	126.06	120.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	858	LEU	C-N-CA	5.04	126.06	120.06
3	C	535	MET	CB-CG-SD	5.03	127.80	112.70

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	811	ARG	Peptide
3	C	364	PHE	Sidechain
3	C	531	GLN	Peptide
3	C	571	LYS	Peptide
3	C	622	LEU	Peptide
3	C	647	ASN	Peptide
3	C	709	GLU	Peptide
3	C	723	GLN	Peptide
3	C	754	TYR	Peptide
3	C	855	LEU	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3168	0	3118	346	0
1	B	3744	0	3703	355	0
1	E	5740	0	5756	830	0
1	H	1928	0	1947	153	0
1	J	1379	0	1333	111	0
1	K	2150	0	2117	187	0
1	L	4458	0	4413	389	0
1	M	4213	0	4209	443	0
2	F	1844	0	1849	75	0
3	C	4133	0	4168	872	0
4	D	875	0	872	93	0
4	I	468	0	474	33	0
4	N	668	0	657	54	0
4	O	514	0	508	42	0
All	All	35282	0	35124	3865	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 55.

All (3865) 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:E:111:TRP:CE3	1:E:111:TRP:CZ3	1.92	1.56
3:C:742:LYS:HE2	1:H:641:VAL:CG1	1.30	1.54
3:C:364:PHE:CD1	3:C:364:PHE:CE1	2.03	1.47
3:C:742:LYS:CE	1:H:641:VAL:HG11	1.45	1.47
3:C:364:PHE:CE1	3:C:364:PHE:CZ	2.04	1.46
3:C:364:PHE:CE2	3:C:364:PHE:CD2	2.04	1.46
3:C:364:PHE:CZ	3:C:364:PHE:CE2	2.05	1.45
2:F:717:ALA:O	1:M:721:PHE:CZ	1.69	1.45
2:F:746:ALA:CB	1:M:721:PHE:HB2	1.50	1.39
1:E:83:LYS:CE	1:E:111:TRP:CE2	2.32	1.13
2:F:717:ALA:O	1:M:721:PHE:HZ	0.77	1.10
1:E:83:LYS:CD	1:E:111:TRP:CE3	2.35	1.09
1:E:83:LYS:CD	1:E:111:TRP:CD2	2.36	1.09
1:E:83:LYS:CE	1:E:111:TRP:CD2	2.36	1.08
1:E:83:LYS:CE	1:E:111:TRP:CE3	2.36	1.07
1:E:83:LYS:CD	1:E:111:TRP:CZ3	2.38	1.07
1:E:83:LYS:CD	1:E:111:TRP:CE2	2.38	1.06
1:E:83:LYS:CE	1:E:111:TRP:CZ3	2.38	1.05
2:F:746:ALA:CB	1:M:721:PHE:CB	2.34	1.05
2:F:746:ALA:HB2	1:M:721:PHE:CB	1.86	1.03
1:E:83:LYS:CE	1:E:111:TRP:CZ2	2.41	1.03
1:E:490:GLN:HB2	1:E:513:ASP:HB3	1.32	1.02
1:K:1601:GLN:HB2	4:N:214:ARG:HE	1.19	1.02
2:F:721:LYS:O	1:M:721:PHE:CG	1.74	1.00
3:C:510:TYR:HB2	3:C:512:PRO:HD2	1.44	1.00
1:E:83:LYS:CE	1:E:111:TRP:CH2	2.45	1.00
2:F:746:ALA:HB2	1:M:721:PHE:HB2	1.00	0.99
2:F:718:VAL:HG12	1:M:723:GLN:HG3	1.44	0.98
3:C:626:ALA:O	3:C:629:HIS:ND1	1.96	0.98
2:F:746:ALA:HA	1:M:721:PHE:HA	1.44	0.98
3:C:553:PHE:HD1	3:C:558:LEU:HB3	1.24	0.97
2:F:747:LEU:H	1:M:721:PHE:H	1.03	0.97
3:C:393:ARG:HA	3:C:398:ILE:HB	1.46	0.97
1:E:83:LYS:CD	1:E:111:TRP:CH2	2.48	0.97
1:L:1092:LEU:O	1:L:1096:TYR:HB3	1.64	0.97
2:F:747:LEU:HB2	1:M:720:ASN:HA	1.47	0.96
1:L:1084:VAL:O	1:L:1088:HIS:HB2	1.64	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:746:ALA:HB1	1:M:721:PHE:HB2	1.45	0.96
3:C:768:LEU:HG	3:C:771:GLN:HE21	1.30	0.95
2:F:717:ALA:C	1:M:721:PHE:HZ	1.72	0.95
3:C:566:LEU:HB3	3:C:580:LEU:HD21	1.46	0.95
1:B:1092:LEU:O	1:B:1096:TYR:HB3	1.65	0.95
1:E:83:LYS:CD	1:E:111:TRP:CZ2	2.50	0.95
3:C:505:ALA:HB3	3:C:536:LEU:HD11	1.48	0.94
3:C:436:CYS:HB2	3:C:457:LEU:HD11	1.49	0.94
1:E:480:LEU:HA	1:E:484:VAL:HG22	1.50	0.93
1:E:281:TYR:HA	1:E:297:ARG:HA	1.50	0.93
3:C:467:VAL:O	3:C:471:ASP:N	2.02	0.93
3:C:360:ALA:HB1	3:C:363:LEU:HB2	1.52	0.92
3:C:749:ARG:O	3:C:780:ARG:NH2	2.01	0.92
3:C:538:GLN:OE1	3:C:572:ASN:ND2	2.03	0.91
3:C:638:ARG:HD2	3:C:638:ARG:N	1.82	0.91
2:F:747:LEU:N	1:M:721:PHE:H	1.69	0.91
3:C:761:ASN:HA	3:C:764:LYS:HD2	1.51	0.90
3:C:502:VAL:O	3:C:506:LYS:HB2	1.72	0.90
3:C:531:GLN:HB2	3:C:565:PHE:HE2	1.36	0.90
3:C:742:LYS:HE2	1:H:641:VAL:HG12	1.51	0.90
3:C:706:LYS:O	3:C:737:LYS:NZ	2.03	0.90
1:K:1604:LYS:HZ1	4:N:213:SER:H	1.17	0.89
3:C:553:PHE:CD1	3:C:558:LEU:HB3	2.06	0.89
3:C:749:ARG:HA	3:C:780:ARG:HH12	1.37	0.89
3:C:773:PRO:HA	3:C:776:ILE:HD12	1.53	0.89
3:C:566:LEU:HD13	3:C:580:LEU:HD11	1.54	0.88
1:L:1145:ASN:HA	1:L:1150:TRP:HE1	1.36	0.88
2:F:721:LYS:O	1:M:721:PHE:CB	2.21	0.88
3:C:665:GLU:HA	3:C:668:ARG:HD3	1.54	0.88
1:J:1550:ALA:O	1:J:1554:LEU:HB2	1.73	0.88
1:K:1470:LEU:O	1:K:1474:GLU:HB2	1.73	0.88
2:F:747:LEU:HD12	1:M:719:VAL:HB	1.54	0.88
3:C:686:ALA:O	3:C:690:HIS:HB3	1.72	0.88
3:C:742:LYS:HG3	1:H:641:VAL:HG21	1.55	0.88
1:K:1499:LEU:HB2	1:K:1511:ALA:HB2	1.55	0.88
3:C:791:LEU:HA	3:C:794:ASN:HD21	1.36	0.87
1:E:352:ALA:O	1:E:356:ASN:N	2.07	0.87
3:C:752:ASN:OD1	3:C:780:ARG:NH2	2.07	0.87
3:C:599:ILE:HG22	3:C:604:MET:HB2	1.56	0.87
2:F:747:LEU:H	1:M:721:PHE:N	1.73	0.86
3:C:476:LEU:HD23	3:C:489:ILE:HG12	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:83:LYS:HD3	1:E:111:TRP:CE3	2.08	0.86
1:E:491:CYS:O	1:E:520:ASN:ND2	2.08	0.86
3:C:550:VAL:HG21	3:C:587:MET:HG3	1.57	0.86
3:C:755:ASP:OD1	3:C:758:ARG:N	2.08	0.85
3:C:830:LYS:HE3	3:C:857:LEU:HB3	1.55	0.85
3:C:724:ASP:O	3:C:728:HIS:ND1	2.09	0.85
1:E:112:LYS:NZ	1:E:155:ASN:OD1	2.10	0.85
3:C:473:THR:HA	3:C:476:LEU:HD12	1.56	0.85
3:C:638:ARG:HD2	3:C:638:ARG:H	1.40	0.85
3:C:757:GLU:HA	3:C:760:LYS:HG2	1.57	0.85
1:A:1558:LEU:HA	1:A:1563:ARG:HE	1.42	0.84
1:E:155:ASN:HD21	1:E:157:ARG:HD3	1.42	0.84
1:A:1312:ALA:HB1	1:A:1316:MET:HG3	1.59	0.84
1:K:1528:CYS:HB3	1:K:1537:ALA:HA	1.60	0.84
2:F:718:VAL:HA	1:M:723:GLN:NE2	1.93	0.84
3:C:570:LEU:O	3:C:603:GLN:NE2	2.09	0.84
1:E:83:LYS:HE2	1:E:111:TRP:CZ2	2.10	0.84
3:C:556:TYR:HB3	3:C:558:LEU:HD13	1.58	0.84
1:E:83:LYS:HE3	1:E:111:TRP:CZ3	2.12	0.83
1:E:79:VAL:HA	1:E:92:ASN:HA	1.60	0.83
1:M:849:VAL:HG11	1:M:855:LEU:HB3	1.59	0.83
1:E:83:LYS:HD2	1:E:111:TRP:CZ3	2.12	0.83
1:B:852:ARG:HB3	1:B:854:ARG:HD2	1.61	0.83
1:E:108:VAL:HG11	1:E:111:TRP:HB3	1.61	0.83
1:L:1295:TYR:HB3	1:L:1298:GLU:HB2	1.61	0.83
3:C:614:ALA:HA	3:C:629:HIS:HB2	1.61	0.82
3:C:696:GLN:N	3:C:696:GLN:OE1	2.11	0.82
3:C:528:GLN:NE2	3:C:557:ASN:O	2.12	0.82
3:C:440:LEU:HD13	3:C:448:LEU:HD23	1.59	0.82
1:B:908:TYR:O	1:B:912:ARG:NH1	2.12	0.82
1:E:157:ARG:HB2	1:E:166:LEU:HB3	1.59	0.82
1:E:196:GLY:HA2	1:E:220:VAL:HB	1.60	0.82
3:C:498:VAL:HG11	3:C:535:MET:HE3	1.60	0.82
3:C:804:VAL:HG22	3:C:812:LEU:HD22	1.61	0.82
1:E:207:GLU:HB2	1:E:354:ARG:HE	1.45	0.82
3:C:521:VAL:HG22	3:C:524:ILE:HD12	1.60	0.82
1:E:184:TYR:HA	1:E:191:SER:HA	1.60	0.82
1:E:502:VAL:HG22	1:E:506:LYS:HE2	1.59	0.82
1:L:1105:PRO:HA	1:L:1108:TRP:HD1	1.45	0.82
1:E:490:GLN:HE21	1:E:504:TYR:HB3	1.44	0.82
1:E:202:ALA:O	1:E:215:LEU:N	2.11	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:468:LYS:HG2	3:C:475:ALA:CB	2.09	0.81
3:C:502:VAL:HA	3:C:536:LEU:HD12	1.62	0.81
3:C:670:MET:SD	3:C:678:ASN:HB3	2.20	0.81
3:C:742:LYS:CE	1:H:641:VAL:CG1	2.26	0.81
3:C:623:LEU:HA	3:C:626:ALA:HB3	1.63	0.81
1:J:1584:GLU:HG2	1:J:1588:ARG:HH21	1.45	0.81
1:E:371:LEU:HB2	1:E:380:ALA:HB2	1.61	0.81
1:E:587:MET:SD	1:E:591:HIS:NE2	2.53	0.81
3:C:461:GLU:HA	3:C:479:TYR:HE1	1.45	0.81
3:C:463:LEU:HD23	3:C:464:GLY:H	1.45	0.81
3:C:581:GLN:HB3	3:C:608:TYR:HB2	1.62	0.81
3:C:762:PHE:O	3:C:766:ALA:N	2.12	0.81
3:C:680:GLN:OE1	3:C:680:GLN:N	2.12	0.81
1:A:1592:MET:HB3	1:A:1596:MET:HE3	1.63	0.81
1:H:837:ARG:HD3	1:H:840:PHE:HB3	1.63	0.81
1:E:232:GLU:HB3	1:E:243:PHE:HB3	1.63	0.80
1:A:1352:ALA:O	1:A:1356:HIS:N	2.13	0.80
1:E:40:ILE:O	1:E:51:VAL:N	2.13	0.80
3:C:629:HIS:O	3:C:633:LEU:N	2.13	0.80
1:M:849:VAL:O	1:M:853:ASN:N	2.13	0.80
1:B:1250:THR:HA	1:B:1253:TRP:HD1	1.45	0.80
1:H:774:LEU:HD13	1:H:787:LEU:HD11	1.64	0.80
1:E:515:ILE:HG12	1:E:548:GLN:HE22	1.46	0.80
1:L:1199:GLN:HE21	1:L:1223:ASN:HD21	1.29	0.80
1:L:1434:ARG:NH1	1:L:1434:ARG:O	2.15	0.80
1:E:128:TYR:HB3	1:E:140:LYS:HG2	1.64	0.80
3:C:641:VAL:HA	3:C:644:HIS:NE2	1.97	0.80
1:A:1358:TRP:HA	1:A:1361:LEU:HD12	1.63	0.80
3:C:764:LYS:O	3:C:767:LYS:NZ	2.13	0.80
1:M:597:ASP:HB2	1:M:625:ARG:HH21	1.47	0.80
3:C:514:TRP:CD1	3:C:543:LEU:HG	2.17	0.79
3:C:521:VAL:HA	3:C:524:ILE:HB	1.64	0.79
3:C:578:GLY:O	3:C:582:THR:N	2.14	0.79
3:C:476:LEU:HA	3:C:489:ILE:HG13	1.63	0.79
1:K:1609:LYS:HA	1:K:1612:LYS:HE3	1.65	0.79
3:C:533:ALA:O	3:C:537:VAL:N	2.14	0.79
1:E:657:SER:O	1:E:690:HIS:NE2	2.14	0.79
3:C:805:GLN:HG2	3:C:806:LYS:HG3	1.63	0.79
1:L:1378:MET:HE2	1:L:1386:TRP:HA	1.65	0.79
1:A:1497:GLN:O	1:A:1501:LYS:NZ	2.16	0.79
3:C:786:ASP:N	3:C:786:ASP:OD1	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:145:HIS:HB2	1:E:182:GLN:HG3	1.63	0.79
1:E:168:THR:HG23	1:E:181:MET:HG2	1.65	0.79
1:M:791:LEU:HD13	1:M:796:LEU:HD21	1.64	0.79
1:E:676:ARG:HE	1:E:705:PHE:HA	1.45	0.79
1:E:157:ARG:N	1:E:166:LEU:O	2.14	0.78
2:F:746:ALA:HB1	1:M:721:PHE:N	1.98	0.78
3:C:553:PHE:O	3:C:558:LEU:N	2.16	0.78
1:E:126:ALA:HA	1:E:143:ASP:HA	1.66	0.78
3:C:817:GLY:O	3:C:852:ARG:NH2	2.16	0.78
3:C:519:ARG:HG2	3:C:523:ARG:HH12	1.47	0.78
1:M:671:LEU:HA	1:M:674:ASN:HB2	1.63	0.78
3:C:837:ARG:NH1	3:C:839:GLN:O	2.17	0.78
3:C:490:GLN:HB3	3:C:513:ASP:HB2	1.65	0.78
1:A:1251:ARG:HH11	1:A:1254:LYS:HE2	1.48	0.78
1:A:1505:ILE:HA	1:A:1508:ARG:HB2	1.65	0.78
3:C:461:GLU:O	3:C:479:TYR:OH	2.01	0.78
3:C:820:LEU:HD23	3:C:852:ARG:HB3	1.66	0.78
1:M:600:LEU:HA	1:M:604:MET:HB3	1.65	0.78
3:C:487:LYS:O	3:C:491:CYS:HB2	1.83	0.78
1:E:614:ALA:HB3	1:E:638:ARG:HH11	1.49	0.78
2:F:717:ALA:HB1	1:M:721:PHE:HE1	1.48	0.78
2:F:898:TRP:C	2:F:899:ILE:HD12	2.08	0.78
3:C:696:GLN:O	3:C:700:GLU:HG2	1.84	0.78
1:A:1556:TRP:HA	1:A:1559:GLN:HG2	1.66	0.77
1:B:1211:TYR:HB3	1:B:1234:LEU:HG	1.66	0.77
1:L:1250:THR:OG1	1:L:1251:ARG:NH1	2.16	0.77
3:C:854:ARG:HG3	3:C:856:LYS:HZ3	1.48	0.77
1:E:600:LEU:HD21	1:E:629:HIS:HA	1.64	0.77
3:C:630:PHE:O	3:C:634:TYR:N	2.17	0.77
3:C:674:ASN:OD1	3:C:674:ASN:N	2.17	0.77
1:M:805:GLN:HG3	1:M:806:LYS:HG3	1.67	0.77
1:L:993:LYS:O	1:L:997:THR:N	2.17	0.77
1:E:466:LEU:O	1:E:469:SER:OG	2.02	0.77
3:C:531:GLN:HB2	3:C:565:PHE:CE2	2.20	0.77
3:C:623:LEU:HD13	3:C:646:LEU:HD22	1.65	0.77
1:A:1532:SER:HB2	1:A:1536:ASP:HB2	1.66	0.77
1:E:611:ALA:O	1:E:638:ARG:NH1	2.18	0.77
1:M:918:CYS:SG	1:M:919:VAL:N	2.58	0.77
1:L:1296:PHE:HA	1:L:1299:LEU:HD12	1.63	0.77
1:A:1471:PHE:O	1:A:1475:GLU:N	2.16	0.77
1:L:1396:THR:O	1:L:1429:ARG:NH1	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:548:GLN:HE21	3:C:552:VAL:HG23	1.48	0.77
1:L:1282:GLU:O	1:L:1285:GLU:N	2.18	0.77
3:C:560:GLN:OE1	3:C:561:GLN:NE2	2.18	0.77
1:K:1550:ALA:O	1:K:1554:LEU:HB2	1.85	0.77
1:E:31:THR:HB	1:E:39:CYS:HB3	1.65	0.76
3:C:465:ASP:HA	3:C:468:LYS:HG3	1.65	0.76
3:C:492:PHE:HA	3:C:520:ASN:OD1	1.85	0.76
3:C:840:PHE:HE2	3:C:845:LEU:HB2	1.49	0.76
1:B:976:GLN:OE1	1:B:976:GLN:N	2.19	0.76
1:E:411:THR:O	1:E:416:GLN:NE2	2.17	0.76
1:B:927:ASP:HA	1:B:930:LEU:HD12	1.67	0.76
1:E:674:ASN:HB3	1:E:678:ASN:HB2	1.67	0.76
3:C:532:PHE:O	3:C:536:LEU:HB2	1.84	0.76
1:M:664:LEU:O	1:M:668:ARG:NH1	2.19	0.76
1:M:1023:ASN:H	1:M:1026:ASN:HD21	1.33	0.76
1:E:360:ALA:O	1:E:364:PHE:N	2.17	0.76
1:K:1517:GLY:O	1:L:1101:ARG:NH2	2.18	0.76
1:L:1218:TYR:HB3	1:L:1223:ASN:HB2	1.68	0.76
1:L:1284:GLU:HA	1:L:1287:ILE:HD12	1.66	0.76
1:E:110:PHE:O	1:E:122:VAL:N	2.19	0.76
1:E:674:ASN:O	1:E:678:ASN:N	2.15	0.76
1:B:886:SER:OG	1:B:888:ASN:ND2	2.18	0.76
3:C:852:ARG:O	3:C:854:ARG:NH1	2.17	0.76
1:A:1295:TYR:HB3	1:A:1298:GLU:HB2	1.67	0.76
3:C:467:VAL:HG23	3:C:475:ALA:HB2	1.68	0.76
3:C:603:GLN:HE21	3:C:607:HIS:CE1	2.03	0.76
3:C:756:PRO:HA	3:C:759:VAL:HB	1.66	0.76
1:B:1198:ILE:HG13	1:B:1202:GLY:HA3	1.66	0.76
1:L:1370:GLU:HG3	1:L:1373:ASN:HB2	1.68	0.76
1:E:263:ALA:HB3	1:E:276:ILE:HB	1.68	0.76
3:C:674:ASN:O	3:C:676:ARG:NH1	2.19	0.75
1:M:1059:ALA:HA	1:M:1062:ASN:HB2	1.68	0.75
1:A:1248:ASN:OD1	1:B:853:ASN:ND2	2.19	0.75
1:A:1528:CYS:O	1:A:1532:SER:N	2.18	0.75
1:L:1411:TYR:O	1:L:1415:LYS:N	2.19	0.75
1:H:810:SER:HB3	1:H:839:GLN:HG3	1.68	0.75
3:C:497:GLN:OE1	3:C:500:LYS:NZ	2.19	0.75
1:E:493:ALA:HB2	1:E:501:ILE:HG12	1.67	0.75
1:L:1177:LEU:HD13	1:L:1186:LEU:HD13	1.66	0.75
1:E:199:ALA:HA	1:E:218:PHE:HA	1.67	0.75
1:E:562:CYS:SG	1:E:563:THR:N	2.59	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:726:ASP:OD1	3:C:758:ARG:NH1	2.19	0.75
1:M:852:ARG:O	1:M:854:ARG:NH1	2.20	0.75
3:C:514:TRP:HE1	3:C:549:ILE:HG12	1.52	0.75
4:D:111:ARG:HA	4:D:114:LEU:HD12	1.68	0.75
3:C:798:LYS:O	3:C:802:ILE:N	2.17	0.75
2:F:746:ALA:HA	1:M:721:PHE:CA	2.16	0.75
3:C:502:VAL:O	3:C:506:LYS:CB	2.35	0.75
1:M:1039:ARG:O	1:M:1046:ARG:NH2	2.19	0.75
1:L:1270:GLN:NE2	1:L:1302:MET:O	2.20	0.75
3:C:600:LEU:HD12	3:C:605:PHE:HB2	1.69	0.74
3:C:735:ALA:HB1	3:C:744:VAL:HG22	1.68	0.74
4:D:146:GLN:HE21	4:D:150:ASN:HD22	1.35	0.74
1:E:128:TYR:HD2	1:E:138:PRO:HB2	1.52	0.74
1:E:656:GLY:O	1:E:660:VAL:N	2.17	0.74
3:C:506:LYS:NZ	3:C:536:LEU:O	2.20	0.74
3:C:831:ASN:O	3:C:835:VAL:N	2.15	0.74
2:F:747:LEU:CB	1:M:720:ASN:HA	2.17	0.74
3:C:468:LYS:HB3	3:C:492:PHE:HB2	1.68	0.74
1:M:741:ILE:HD12	1:M:744:VAL:HB	1.69	0.74
1:A:1505:ILE:O	1:A:1509:ARG:N	2.20	0.74
1:A:1535:LYS:HA	1:A:1538:MET:HE2	1.68	0.74
1:B:881:LYS:HA	1:B:884:ILE:HD12	1.69	0.74
3:C:554:MET:HA	3:C:559:ILE:HG13	1.68	0.74
1:E:317:GLY:O	1:E:325:LEU:N	2.21	0.74
3:C:465:ASP:N	3:C:479:TYR:OH	2.21	0.74
3:C:827:ASP:O	3:C:831:ASN:ND2	2.20	0.74
1:B:812:LEU:HA	1:B:815:VAL:HG22	1.68	0.74
1:L:1020:GLU:HG3	1:L:1022:ARG:H	1.53	0.74
1:E:52:ILE:N	1:E:62:ILE:O	2.19	0.74
1:E:171:SER:O	1:E:178:VAL:N	2.19	0.74
3:C:457:LEU:HD23	3:C:458:GLU:H	1.53	0.74
1:A:1322:ILE:O	1:A:1325:SER:OG	2.06	0.74
1:A:1393:ASP:O	1:A:1397:LYS:NZ	2.20	0.74
1:L:1314:MET:HB2	1:L:1343:VAL:HG22	1.70	0.74
1:A:1396:THR:OG1	1:A:1397:LYS:NZ	2.21	0.74
4:O:113:ARG:NH2	4:O:116:GLU:OE1	2.20	0.74
1:L:1380:ASN:OD1	1:L:1381:HIS:ND1	2.20	0.74
3:C:429:LYS:HD3	3:C:458:GLU:HG3	1.69	0.74
3:C:678:ASN:HA	3:C:681:ILE:HB	1.70	0.74
1:E:18:LEU:O	1:E:63:ARG:NH2	2.21	0.74
3:C:790:TYR:O	3:C:794:ASN:ND2	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1001:PRO:HD2	1:B:1004:LEU:HD13	1.67	0.74
1:E:21:ASN:HB3	1:E:24:ASN:HB2	1.69	0.73
1:E:684:GLN:O	1:E:687:SER:OG	2.04	0.73
3:C:849:VAL:O	3:C:853:ASN:N	2.22	0.73
1:B:1103:ASN:HA	1:B:1108:TRP:HZ2	1.53	0.73
1:M:925:GLN:HB3	1:M:950:ARG:HH22	1.53	0.73
1:L:1244:ALA:O	1:L:1248:ASN:ND2	2.22	0.73
1:E:577:GLU:HB2	1:E:580:LEU:HG	1.70	0.73
3:C:597:ASP:H	3:C:625:ARG:HH21	1.36	0.73
4:O:139:TRP:HH2	1:L:1446:PRO:HB2	1.54	0.73
3:C:793:ARG:HH22	1:B:1221:VAL:C	1.97	0.73
1:A:1533:LEU:O	1:A:1562:LYS:NZ	2.20	0.73
1:E:84:ALA:HB3	1:E:87:THR:HB	1.68	0.73
1:K:1496:ALA:HB2	1:K:1514:LEU:HD11	1.68	0.73
1:E:52:ILE:O	1:E:62:ILE:N	2.20	0.73
1:E:209:ASN:ND2	1:E:241:GLN:O	2.21	0.73
1:E:476:LEU:HB3	1:E:500:LYS:HD2	1.70	0.73
1:M:881:LYS:HA	1:M:884:ILE:HD12	1.70	0.73
3:C:708:PHE:CE2	3:C:709:GLU:HB3	2.24	0.73
1:B:1139:GLU:OE1	1:B:1139:GLU:N	2.19	0.73
3:C:641:VAL:HA	3:C:644:HIS:CD2	2.24	0.73
3:C:493:ALA:O	3:C:517:LEU:HD12	1.87	0.73
3:C:784:VAL:HA	3:C:787:LEU:HB3	1.71	0.73
1:B:922:GLU:O	1:B:925:GLN:NE2	2.21	0.73
1:L:1332:MET:O	1:L:1336:LEU:HB3	1.88	0.73
1:E:206:MET:HB2	1:E:209:ASN:HD22	1.54	0.72
1:E:83:LYS:NZ	1:E:111:TRP:O	2.22	0.72
1:M:1023:ASN:HA	1:M:1027:LEU:HD23	1.71	0.72
1:E:83:LYS:HG3	1:E:88:LEU:HD13	1.70	0.72
3:C:586:GLU:O	3:C:589:LEU:HG	1.89	0.72
1:A:1399:ALA:O	1:A:1429:ARG:NH2	2.22	0.72
3:C:461:GLU:HA	3:C:479:TYR:CE1	2.23	0.72
1:M:803:TYR:OH	1:M:811:ARG:NH1	2.21	0.72
3:C:866:ILE:HA	3:C:870:CYS:HB3	1.70	0.72
1:L:1382:PRO:O	1:L:1386:TRP:N	2.22	0.72
1:E:265:GLN:O	1:E:274:PHE:N	2.21	0.72
3:C:426:GLN:NE2	3:C:427:LEU:O	2.23	0.72
3:C:468:LYS:HD2	3:C:479:TYR:HE2	1.55	0.72
3:C:668:ARG:HB2	3:C:668:ARG:NH2	2.05	0.72
1:K:1556:TRP:HA	1:K:1559:GLN:HG2	1.72	0.72
1:L:1416:PRO:HA	1:L:1419:LEU:HB2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:400:ARG:O	1:E:403:SER:OG	2.07	0.72
1:E:510:TYR:HB2	1:E:513:ASP:HB2	1.71	0.72
3:C:690:HIS:HB2	3:C:698:LEU:HD11	1.70	0.72
3:C:707:SER:OG	3:C:737:LYS:NZ	2.23	0.72
2:F:854:ILE:HG23	2:F:912:TYR:HB2	1.72	0.72
1:A:1601:GLN:HA	1:A:1604:LYS:HE2	1.70	0.72
1:B:871:GLU:HA	1:B:876:HIS:HE2	1.53	0.72
1:L:1285:GLU:N	1:L:1285:GLU:OE1	2.23	0.72
2:F:860:ASN:HB2	2:F:862:ASP:OD1	1.89	0.72
3:C:576:SER:OG	3:C:607:HIS:ND1	2.18	0.72
1:M:1030:LEU:HA	1:M:1033:ILE:HD12	1.72	0.72
1:E:221:ARG:NH1	1:E:259:ASP:O	2.22	0.72
1:E:539:ASP:O	1:E:574:ARG:NH1	2.23	0.72
1:J:1492:ASN:HB3	1:J:1514:LEU:HD13	1.72	0.72
1:K:1600:ILE:HA	1:K:1603:MET:HE2	1.72	0.72
1:L:1037:ARG:HD2	1:L:1039:ARG:HH21	1.55	0.72
1:L:1265:GLU:OE2	1:L:1267:ARG:NH2	2.23	0.72
1:E:83:LYS:HD3	1:E:111:TRP:CD2	2.22	0.71
1:E:637:LYS:NZ	1:E:662:ASP:OD2	2.23	0.71
1:B:956:TRP:O	1:B:960:LEU:N	2.19	0.71
1:K:1398:VAL:O	1:K:1429:ARG:NH2	2.23	0.71
1:L:1065:PHE:O	1:L:1069:PHE:N	2.23	0.71
1:L:1471:PHE:HA	1:L:1474:GLU:HB2	1.72	0.71
1:H:791:LEU:HB3	1:H:796:LEU:HG	1.71	0.71
1:E:502:VAL:HG21	1:E:539:ASP:HB2	1.70	0.71
1:M:841:SER:OG	1:M:843:ASP:OD1	2.08	0.71
1:K:1562:LYS:NZ	4:N:199:CYS:SG	2.63	0.71
1:E:363:LEU:HA	1:E:366:ARG:HD2	1.73	0.71
3:C:742:LYS:CD	1:H:641:VAL:HG11	2.20	0.71
1:M:687:SER:HA	1:M:690:HIS:CD2	2.24	0.71
1:M:908:TYR:O	1:M:912:ARG:NH1	2.22	0.71
1:A:1360:GLU:OE1	1:A:1360:GLU:N	2.20	0.71
1:J:1588:ARG:HH22	4:N:221:SER:HB2	1.54	0.71
1:E:476:LEU:O	1:E:500:LYS:NZ	2.20	0.71
2:F:747:LEU:HB2	1:M:720:ASN:CA	2.20	0.71
3:C:489:ILE:HG23	3:C:490:GLN:HG3	1.71	0.71
1:M:676:ARG:HG3	1:M:679:LEU:HD22	1.72	0.71
1:E:44:VAL:HG22	1:E:49:GLN:HG3	1.72	0.71
3:C:539:ASP:OD1	3:C:572:ASN:ND2	2.22	0.71
1:M:837:ARG:NH1	1:M:838:GLY:O	2.23	0.71
1:A:1400:ASN:ND2	1:A:1402:GLU:OE2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1446:PRO:HA	1:L:1449:LYS:HE2	1.72	0.71
1:M:563:THR:HG23	1:M:584:LEU:HD22	1.73	0.71
1:L:1161:ARG:O	1:L:1165:ARG:NH2	2.22	0.71
1:L:1170:GLU:OE1	1:L:1170:GLU:N	2.22	0.71
1:E:484:VAL:HG13	1:E:500:LYS:HE2	1.73	0.71
1:E:453:LYS:HG2	1:E:481:ARG:HH22	1.54	0.71
1:E:676:ARG:HH21	1:E:704:SER:C	1.98	0.71
3:C:519:ARG:HG2	3:C:523:ARG:HH22	1.55	0.71
1:M:872:GLU:HB2	1:M:875:THR:HG22	1.71	0.71
1:B:1158:GLN:O	1:B:1162:LYS:NZ	2.24	0.71
1:E:307:ALA:N	1:E:316:ILE:O	2.23	0.71
1:M:642:HIS:HA	1:M:645:LEU:HD13	1.73	0.71
1:M:1042:GLU:HA	1:M:1045:ASN:HD21	1.56	0.71
1:E:1:MET:HE2	2:F:896:GLY:O	1.90	0.71
1:E:211:GLU:H	1:E:240:ASN:HD21	1.38	0.71
1:B:890:PRO:HB2	1:B:893:PHE:HB3	1.73	0.71
1:H:674:ASN:O	1:H:676:ARG:NH2	2.24	0.71
4:N:209:CYS:SG	4:N:210:LYS:N	2.64	0.70
3:C:725:PRO:C	3:C:758:ARG:HH22	1.99	0.70
1:J:1535:LYS:HA	1:J:1538:MET:HE2	1.72	0.70
1:K:1578:ARG:HH11	1:K:1580:ASP:HB3	1.55	0.70
1:L:964:ASN:HB3	1:L:967:ARG:HE	1.56	0.70
1:K:1481:ARG:NH1	1:K:1506:GLU:OE2	2.24	0.70
3:C:791:LEU:O	3:C:795:ASN:N	2.24	0.70
1:L:1109:SER:OG	1:L:1110:GLN:NE2	2.24	0.70
1:L:1151:GLU:O	1:L:1155:LYS:NZ	2.24	0.70
1:E:465:ASP:OD1	1:E:479:TYR:OH	2.07	0.70
1:A:1344:ASN:OD1	1:B:937:ASN:ND2	2.25	0.70
1:A:1460:ASN:HB3	1:A:1463:VAL:HG23	1.72	0.70
4:O:130:GLU:O	4:O:134:LYS:NZ	2.24	0.70
1:L:1423:LEU:HA	1:L:1426:LEU:HB2	1.73	0.70
3:C:436:CYS:CB	3:C:457:LEU:HD11	2.20	0.70
1:A:1393:ASP:OD2	1:A:1393:ASP:N	2.22	0.70
1:E:236:PRO:HG3	1:E:242:PRO:HG3	1.73	0.70
1:J:1472:ILE:O	1:J:1502:HIS:NE2	2.24	0.70
1:E:660:VAL:HB	1:E:667:LEU:HD21	1.72	0.70
1:E:681:ILE:H	1:E:681:ILE:HD12	1.57	0.70
1:A:1558:LEU:O	1:A:1563:ARG:NH2	2.24	0.70
1:H:725:PRO:HB3	1:H:754:TYR:HA	1.72	0.70
1:E:259:ASP:OD1	1:E:260:PHE:N	2.25	0.70
1:E:644:HIS:ND1	1:E:670:MET:SD	2.62	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1313:HIS:CD2	1:A:1315:GLY:H	2.09	0.70
1:B:1105:PRO:HA	1:B:1108:TRP:CD1	2.27	0.70
4:D:103:ILE:HA	4:D:106:TRP:HB3	1.71	0.70
3:C:367:LYS:HE3	3:C:371:LEU:HD11	1.72	0.69
3:C:582:THR:HA	3:C:608:TYR:CZ	2.27	0.69
3:C:819:LEU:HD22	3:C:829:ILE:HG13	1.74	0.69
1:M:971:ILE:HA	1:M:974:VAL:HG22	1.73	0.69
1:L:1203:ASP:HA	1:L:1206:TYR:CZ	2.27	0.69
1:E:100:LYS:NZ	1:E:135:GLU:OE1	2.26	0.69
2:F:746:ALA:HB1	1:M:721:PHE:CB	2.12	0.69
3:C:798:LYS:HB3	3:C:802:ILE:HG23	1.75	0.69
3:C:820:LEU:HB3	3:C:852:ARG:HE	1.57	0.69
1:B:928:LEU:HA	1:B:931:ILE:HD12	1.74	0.69
1:E:377:TYR:O	1:E:381:ALA:HB2	1.92	0.69
3:C:438:PRO:O	3:C:442:GLN:N	2.25	0.69
3:C:542:PRO:HA	3:C:546:ILE:HD11	1.74	0.69
3:C:593:PRO:O	3:C:625:ARG:NH2	2.24	0.69
1:M:1064:LEU:HB3	1:M:1067:GLU:HB3	1.74	0.69
1:A:1324:TYR:O	1:A:1328:LYS:N	2.24	0.69
3:C:743:GLU:HA	3:C:746:ARG:CZ	2.22	0.69
1:A:1321:ALA:HB1	1:A:1332:MET:HE3	1.72	0.69
1:B:891:GLU:HG2	1:B:895:ARG:HH12	1.58	0.69
1:B:1242:ASP:HA	1:B:1245:ARG:HE	1.58	0.69
1:E:486:ASN:ND2	1:E:509:GLY:O	2.26	0.69
3:C:626:ALA:C	3:C:629:HIS:HD1	1.98	0.69
1:J:1472:ILE:HD13	1:J:1498:ARG:HD2	1.75	0.69
1:H:668:ARG:NH1	1:H:672:SER:OG	2.26	0.69
1:E:182:GLN:HA	1:E:193:PRO:HA	1.72	0.69
3:C:477:SER:HB2	3:C:481:ARG:HE	1.58	0.69
1:A:1540:TYR:HA	1:A:1543:GLU:HG3	1.74	0.69
1:A:1574:TYR:HA	1:A:1577:LEU:HD23	1.73	0.69
4:I:218:VAL:HG22	4:I:223:LYS:HE2	1.75	0.69
1:E:273:VAL:N	1:E:285:TYR:O	2.24	0.69
1:E:534:GLN:NE2	1:E:568:ASP:OD2	2.25	0.69
3:C:745:GLU:HA	3:C:748:CYS:SG	2.32	0.69
3:C:796:LEU:HD21	3:C:800:ILE:HG22	1.75	0.69
3:C:837:ARG:HH21	3:C:838:GLY:H	1.40	0.69
3:C:863:GLU:O	3:C:867:HIS:ND1	2.22	0.69
1:M:660:VAL:HG22	1:M:662:ASP:H	1.58	0.69
1:M:928:LEU:HA	1:M:931:ILE:HD12	1.74	0.69
1:M:939:LEU:HD23	1:M:942:SER:H	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:970:LEU:HA	1:M:973:GLN:NE2	2.07	0.69
1:A:1493:ILE:O	1:A:1497:GLN:NE2	2.25	0.69
1:L:1242:ASP:O	1:L:1246:LYS:NZ	2.26	0.69
1:E:43:LYS:HA	1:E:48:ALA:HA	1.75	0.69
3:C:457:LEU:HD22	3:C:463:LEU:HB3	1.75	0.69
3:C:505:ALA:CB	3:C:536:LEU:HD11	2.22	0.69
4:D:138:GLU:OE1	4:D:142:ARG:NH1	2.19	0.69
1:E:83:LYS:HE2	1:E:111:TRP:CH2	2.24	0.69
3:C:708:PHE:CD2	3:C:709:GLU:HB3	2.28	0.69
1:B:926:CYS:HB3	1:B:929:GLU:HB2	1.75	0.69
1:L:1249:SER:HB3	1:L:1252:THR:HG23	1.75	0.69
1:E:379:GLU:HA	1:E:382:LYS:HD2	1.73	0.68
1:E:454:GLU:OE1	1:E:456:LYS:NZ	2.26	0.68
1:E:568:ASP:HA	1:E:571:LYS:HD2	1.75	0.68
3:C:491:CYS:O	3:C:516:PHE:HB3	1.92	0.68
3:C:553:PHE:CG	3:C:562:CYS:HB2	2.28	0.68
3:C:842:THR:HG1	3:C:861:TRP:CD1	2.09	0.68
1:M:817:GLY:O	1:M:852:ARG:NH2	2.25	0.68
1:A:1523:GLN:HA	1:A:1526:GLU:HB3	1.74	0.68
1:K:1397:LYS:HE3	1:L:976:GLN:HE21	1.58	0.68
4:I:195:VAL:O	4:I:199:CYS:N	2.16	0.68
1:E:433:LEU:HD21	1:E:462:GLU:HB3	1.75	0.68
1:E:593:PRO:O	1:E:625:ARG:NH1	2.26	0.68
1:B:909:CYS:HA	1:B:912:ARG:HD2	1.74	0.68
1:B:1030:LEU:HA	1:B:1033:ILE:HD12	1.74	0.68
1:B:1106:ALA:O	1:B:1110:GLN:NE2	2.25	0.68
3:C:502:VAL:HG11	3:C:535:MET:HB2	1.76	0.68
3:C:659:SER:O	3:C:660:VAL:N	2.27	0.68
1:J:1500:GLU:HG3	1:J:1501:LYS:HG3	1.75	0.68
1:B:1232:VAL:HG21	1:B:1252:THR:HG21	1.76	0.68
1:K:1504:LEU:HB2	1:K:1507:PHE:HD1	1.58	0.68
1:E:475:ALA:HB1	1:E:479:TYR:HE2	1.57	0.68
1:M:657:SER:O	1:M:663:SER:OG	2.09	0.68
1:M:843:ASP:OD1	1:M:843:ASP:N	2.24	0.68
1:M:968:ARG:HD2	1:M:971:ILE:HD11	1.74	0.68
1:E:284:LEU:HG	1:E:293:ILE:HB	1.74	0.68
3:C:650:TRP:O	3:C:653:ASN:HB3	1.93	0.68
3:C:840:PHE:CE2	3:C:845:LEU:HB2	2.27	0.68
1:M:946:TYR:O	1:M:950:ARG:N	2.25	0.68
1:A:1439:PHE:HA	1:A:1442:VAL:HG22	1.73	0.68
1:L:990:VAL:HA	1:L:993:LYS:HD2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:377:TYR:CG	1:E:413:PRO:HB3	2.29	0.68
1:E:411:THR:HB	1:E:416:GLN:HG2	1.74	0.68
1:A:1579:PRO:HD2	1:J:1607:LEU:HD21	1.76	0.68
1:B:945:ARG:HA	1:B:948:VAL:HG22	1.76	0.68
1:E:597:ASP:OD1	1:E:629:HIS:NE2	2.27	0.68
1:M:739:GLY:O	1:M:740:GLN:NE2	2.27	0.68
1:B:866:ILE:HD13	1:B:879:LEU:HD21	1.75	0.68
1:B:891:GLU:O	1:B:895:ARG:HB2	1.94	0.68
1:E:230:ILE:HB	1:E:246:LYS:HB2	1.76	0.68
1:E:266:ILE:HD13	1:E:287:LEU:HD13	1.76	0.68
1:E:283:HIS:HB3	1:E:285:TYR:HE1	1.59	0.68
1:E:283:HIS:NE2	1:E:295:MET:SD	2.66	0.68
4:D:103:ILE:HG23	4:D:106:TRP:HD1	1.59	0.68
1:K:1494:SER:O	1:K:1498:ARG:NE	2.26	0.68
1:M:741:ILE:O	1:M:745:GLU:N	2.20	0.68
1:H:760:LYS:HA	1:H:763:LEU:HD12	1.76	0.68
1:E:83:LYS:HD2	1:E:111:TRP:CH2	2.29	0.67
1:E:467:VAL:HG11	1:E:474:LEU:HB2	1.75	0.67
2:F:746:ALA:CB	1:M:721:PHE:CA	2.71	0.67
1:L:1390:GLN:H	1:L:1390:GLN:CD	2.02	0.67
1:E:63:ARG:O	1:E:64:ARG:NH1	2.27	0.67
3:C:650:TRP:CZ2	3:C:654:TYR:HE2	2.13	0.67
3:C:715:LEU:HB3	3:C:719:VAL:HG12	1.74	0.67
1:M:873:PRO:O	1:M:877:ASN:ND2	2.27	0.67
1:M:922:GLU:O	1:M:925:GLN:NE2	2.27	0.67
1:B:1267:ARG:HH11	1:B:1268:LEU:HG	1.59	0.67
1:H:791:LEU:O	1:H:795:ASN:N	2.26	0.67
4:N:218:VAL:HG22	4:N:223:LYS:HB2	1.76	0.67
1:E:164:TRP:HB3	1:E:183:LEU:HD11	1.76	0.67
3:C:743:GLU:OE1	3:C:743:GLU:N	2.27	0.67
1:M:655:PHE:HA	1:M:658:LEU:HB3	1.75	0.67
1:A:1377:THR:O	1:A:1381:HIS:N	2.24	0.67
4:D:138:GLU:O	4:D:141:GLN:NE2	2.28	0.67
1:M:866:ILE:HG13	1:M:879:LEU:HD11	1.76	0.67
1:A:1469:ASN:HA	1:A:1472:ILE:HD12	1.76	0.67
1:B:858:LEU:O	1:B:862:LEU:N	2.19	0.67
1:E:81:ALA:HB1	1:E:88:LEU:HD11	1.77	0.67
1:E:372:PHE:HE1	1:E:417:TYR:HE1	1.42	0.67
1:E:467:VAL:O	1:E:471:ASP:N	2.18	0.67
1:M:684:GLN:O	1:M:687:SER:OG	2.12	0.67
1:M:826:GLU:OE1	1:M:826:GLU:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:108:GLU:HA	4:D:111:ARG:HG2	1.77	0.67
1:K:1445:LEU:HA	1:K:1448:VAL:HG22	1.76	0.67
3:C:521:VAL:HG13	3:C:524:ILE:HG21	1.76	0.67
1:L:1185:GLU:N	1:L:1185:GLU:OE1	2.27	0.67
1:H:852:ARG:O	1:H:854:ARG:NH1	2.28	0.67
1:E:568:ASP:OD1	1:E:571:LYS:NZ	2.27	0.67
3:C:466:LEU:O	3:C:469:SER:OG	2.10	0.67
3:C:708:PHE:CG	3:C:709:GLU:N	2.63	0.67
1:L:1398:VAL:O	1:L:1429:ARG:NH2	2.28	0.67
3:C:418:PHE:HZ	3:C:447:LEU:HD13	1.57	0.67
3:C:495:THR:OG1	3:C:526:PRO:HG2	1.95	0.67
3:C:546:ILE:HB	3:C:583:ARG:HH11	1.59	0.67
1:A:1379:MET:HE1	1:A:1410:PHE:HB2	1.77	0.67
1:A:1492:ASN:HA	1:A:1495:LEU:HD13	1.77	0.67
1:B:1157:LEU:HD13	1:B:1173:LEU:HA	1.77	0.67
1:E:668:ARG:HG2	1:E:698:LEU:HD11	1.75	0.67
3:C:662:ASP:O	3:C:665:GLU:N	2.26	0.67
1:B:1123:GLU:N	1:B:1123:GLU:OE2	2.27	0.67
1:E:402:GLN:HA	1:E:414:LEU:HD11	1.75	0.67
1:E:451:TRP:HB3	1:E:456:LYS:HB2	1.77	0.67
1:E:490:GLN:CB	1:E:513:ASP:HB3	2.18	0.67
1:E:576:SER:O	1:E:581:GLN:NE2	2.28	0.67
1:M:957:GLY:HA2	1:M:960:LEU:HB2	1.76	0.67
1:B:1125:ILE:HG12	1:B:1152:GLU:HG3	1.76	0.67
1:B:1143:ALA:O	1:B:1149:ASN:ND2	2.28	0.67
1:B:1203:ASP:OD1	1:B:1218:TYR:OH	2.13	0.67
1:B:1218:TYR:HB3	1:B:1227:LEU:HB3	1.76	0.67
1:E:26:GLY:O	1:E:30:LEU:N	2.29	0.66
4:D:126:GLN:OE1	4:D:129:ARG:NH1	2.28	0.66
1:J:1609:LYS:O	1:J:1613:LEU:HG	1.95	0.66
1:K:1574:TYR:OH	1:K:1601:GLN:NE2	2.28	0.66
1:E:31:THR:N	1:E:39:CYS:O	2.28	0.66
3:C:502:VAL:HG12	3:C:532:PHE:O	1.94	0.66
3:C:826:GLU:N	3:C:826:GLU:OE1	2.28	0.66
1:A:1411:TYR:O	1:A:1415:LYS:N	2.27	0.66
1:L:1136:SER:O	1:L:1140:VAL:N	2.24	0.66
1:L:1188:GLU:OE1	1:L:1188:GLU:N	2.29	0.66
1:E:38:ILE:HB	1:E:53:ILE:HB	1.78	0.66
1:E:51:VAL:HG13	1:E:63:ARG:HG2	1.76	0.66
1:E:200:SER:O	1:E:217:CYS:N	2.25	0.66
1:E:318:VAL:HG22	1:E:324:VAL:HG22	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:479:TYR:HB3	3:C:485:PRO:HD2	1.77	0.66
3:C:857:LEU:O	3:C:859:LEU:N	2.27	0.66
1:L:1097:GLU:N	1:L:1097:GLU:OE1	2.27	0.66
3:C:393:ARG:NH2	3:C:425:GLY:O	2.28	0.66
3:C:864:ALA:HA	3:C:867:HIS:CE1	2.29	0.66
1:E:74:ASN:ND2	1:E:116:LEU:O	2.22	0.66
1:E:181:MET:N	1:E:194:ILE:O	2.21	0.66
1:E:231:ILE:HG22	1:E:245:LYS:HB3	1.76	0.66
1:B:1128:TYR:OH	1:B:1136:SER:OG	2.13	0.66
4:D:118:ASP:OD1	4:D:119:ALA:N	2.28	0.66
1:E:439:VAL:HA	1:E:442:GLN:HB2	1.78	0.66
3:C:684:GLN:O	3:C:687:SER:OG	2.09	0.66
1:B:1207:ASP:O	1:B:1209:LYS:NZ	2.29	0.66
1:E:8:ARG:NH2	1:E:332:GLU:OE2	2.29	0.66
1:E:109:THR:OG1	1:E:124:ASP:OD1	2.13	0.66
1:M:890:PRO:HB2	1:M:893:PHE:HB3	1.76	0.66
1:L:1007:LEU:HD23	1:L:1010:LYS:HZ1	1.60	0.66
1:E:31:THR:HG21	1:E:72:ILE:HA	1.76	0.66
1:A:1494:SER:HA	1:A:1497:GLN:HG2	1.78	0.66
1:E:90:ILE:HG21	1:E:132:MET:HB3	1.76	0.66
1:E:175:ASN:O	1:E:176:ARG:NH1	2.25	0.66
3:C:478:VAL:O	3:C:482:ALA:N	2.25	0.66
3:C:655:PHE:O	3:C:659:SER:N	2.27	0.66
1:M:709:GLU:O	1:M:712:PHE:HB3	1.96	0.66
1:E:121:LEU:N	1:E:128:TYR:O	2.23	0.66
3:C:534:GLN:HB2	3:C:565:PHE:CD1	2.30	0.66
3:C:727:VAL:O	3:C:731:TYR:HB2	1.96	0.66
1:A:1608:THR:OG1	1:A:1609:LYS:NZ	2.29	0.66
4:D:146:GLN:O	4:D:150:ASN:ND2	2.29	0.66
1:K:1526:GLU:HA	1:K:1529:LYS:HD3	1.78	0.66
3:C:668:ARG:HB2	3:C:668:ARG:HH21	1.61	0.65
1:H:825:SER:OG	1:H:827:ASP:OD1	2.13	0.65
4:N:218:VAL:O	4:N:223:LYS:N	2.29	0.65
1:E:86:LYS:NZ	1:E:105:THR:O	2.25	0.65
1:K:1595:ALA:O	1:K:1599:PHE:N	2.26	0.65
1:L:1179:LYS:HD3	1:L:1210:MET:HE1	1.78	0.65
1:M:567:LEU:HD23	1:M:570:LEU:HD12	1.78	0.65
1:M:802:ILE:HA	1:M:805:GLN:HG2	1.77	0.65
4:O:130:GLU:HA	4:O:133:LYS:HE2	1.78	0.65
1:K:1539:GLN:O	1:K:1542:SER:OG	2.15	0.65
1:E:172:ALA:HA	1:E:177:VAL:HA	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:714:PHE:O	1:M:717:SER:OG	2.13	0.65
1:A:1492:ASN:HB2	1:A:1518:ASN:HD21	1.59	0.65
1:L:1328:LYS:HB3	1:L:1331:LYS:HD3	1.77	0.65
1:E:349:LEU:HD13	1:E:367:LYS:HE3	1.76	0.65
1:A:1493:ILE:HG13	1:A:1494:SER:H	1.60	0.65
4:N:128:TRP:HA	4:N:131:LYS:HE3	1.77	0.65
1:E:289:THR:OG1	1:E:291:THR:OG1	2.13	0.65
3:C:615:GLN:O	3:C:618:GLU:HB3	1.97	0.65
3:C:669:ALA:O	3:C:672:SER:OG	2.14	0.65
3:C:839:GLN:N	3:C:839:GLN:OE1	2.30	0.65
1:M:1016:SER:O	1:M:1019:SER:OG	2.14	0.65
1:B:995:PHE:HA	1:B:1000:LEU:HD23	1.77	0.65
3:C:576:SER:HB3	3:C:607:HIS:HB3	1.78	0.65
1:L:1158:GLN:O	1:L:1162:LYS:NZ	2.17	0.65
1:E:183:LEU:O	1:E:192:GLN:N	2.27	0.65
1:E:267:SER:O	1:E:271:ASP:N	2.29	0.65
3:C:825:SER:OG	3:C:826:GLU:OE1	2.13	0.65
1:M:786:ASP:OD1	1:M:786:ASP:N	2.27	0.65
1:B:1111:LEU:O	1:B:1115:GLN:NE2	2.30	0.65
1:L:1352:ALA:HB1	1:L:1361:LEU:HD22	1.78	0.65
3:C:832:LEU:HA	3:C:835:VAL:HG22	1.79	0.64
1:A:1513:TYR:O	1:A:1516:LYS:HG2	1.97	0.64
1:B:849:VAL:O	1:B:853:ASN:N	2.30	0.64
1:B:1025:GLN:HE21	1:B:1050:TYR:HB2	1.62	0.64
1:L:1139:GLU:OE1	1:L:1139:GLU:N	2.22	0.64
3:C:687:SER:HB3	3:C:714:PHE:HE1	1.63	0.64
1:A:1460:ASN:ND2	1:A:1462:SER:OG	2.30	0.64
1:A:1514:LEU:O	1:A:1518:ASN:N	2.29	0.64
1:K:1503:GLU:H	1:K:1508:ARG:HH22	1.44	0.64
1:L:1129:ILE:HB	1:L:1130:LYS:HZ3	1.61	0.64
1:L:1238:GLN:NE2	1:L:1242:ASP:OD1	2.30	0.64
1:E:8:ARG:NE	1:E:330:GLU:OE1	2.30	0.64
1:E:342:LEU:O	1:E:344:ASN:ND2	2.30	0.64
1:E:505:ALA:O	1:E:514:TRP:NE1	2.29	0.64
3:C:442:GLN:HB3	3:C:444:ARG:HG2	1.79	0.64
3:C:486:ASN:HB3	3:C:510:TYR:HE1	1.61	0.64
3:C:793:ARG:NH2	1:B:1221:VAL:O	2.23	0.64
1:M:856:LYS:H	1:M:856:LYS:HD2	1.63	0.64
1:A:1402:GLU:OE1	1:A:1402:GLU:N	2.31	0.64
1:B:1198:ILE:HD11	1:B:1218:TYR:HD1	1.63	0.64
1:B:1002:ASN:ND2	1:B:1034:LYS:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:211:GLU:H	1:E:240:ASN:ND2	1.94	0.64
3:C:762:PHE:O	3:C:765:GLU:HG2	1.98	0.64
3:C:501:ILE:HG21	3:C:517:LEU:HD13	1.79	0.64
3:C:743:GLU:O	3:C:746:ARG:HB3	1.98	0.64
1:B:1039:ARG:HB2	1:B:1043:TYR:CZ	2.32	0.64
1:E:618:GLU:HG2	1:E:642:HIS:NE2	2.13	0.64
1:M:939:LEU:HD21	1:M:941:LYS:HE3	1.77	0.64
1:L:1419:LEU:O	1:L:1423:LEU:HG	1.98	0.64
1:E:99:MET:HG2	1:E:132:MET:HE3	1.79	0.64
1:E:275:LEU:O	1:E:283:HIS:N	2.31	0.64
1:E:524:ILE:HB	1:E:526:PRO:HG2	1.79	0.64
3:C:463:LEU:HD23	3:C:464:GLY:N	2.13	0.64
3:C:791:LEU:HB3	3:C:796:LEU:HD12	1.80	0.64
4:O:126:GLN:OE1	4:O:129:ARG:NH1	2.30	0.64
1:K:1584:GLU:OE1	1:K:1588:ARG:NH2	2.30	0.64
1:L:1128:TYR:HD1	1:L:1131:ALA:HB3	1.62	0.64
1:L:1224:PHE:O	1:L:1226:ARG:NH2	2.28	0.64
1:L:1360:GLU:OE1	1:L:1360:GLU:N	2.30	0.64
4:I:150:ASN:O	4:I:154:ASN:ND2	2.31	0.64
4:N:192:TRP:HA	4:N:195:VAL:HG22	1.80	0.64
4:D:119:ALA:HA	4:D:122:LYS:HD3	1.80	0.64
1:K:1527:LEU:HA	1:K:1530:LYS:HG3	1.78	0.64
1:L:1043:TYR:O	1:L:1047:LEU:N	2.31	0.64
1:E:514:TRP:HH2	1:E:541:GLU:H	1.47	0.64
3:C:514:TRP:HE1	3:C:549:ILE:CG1	2.10	0.64
3:C:715:LEU:HD23	3:C:718:ILE:HD12	1.79	0.64
1:M:655:PHE:O	1:M:659:SER:N	2.25	0.64
1:B:1142:GLN:O	1:B:1146:THR:OG1	2.15	0.64
1:B:1216:LEU:O	1:B:1220:ASN:ND2	2.31	0.64
1:E:202:ALA:N	1:E:215:LEU:O	2.27	0.63
3:C:650:TRP:CE2	3:C:654:TYR:HE2	2.15	0.63
1:M:718:ILE:O	1:M:722:SER:OG	2.15	0.63
1:B:1157:LEU:HB2	1:B:1173:LEU:HD13	1.80	0.63
1:B:1221:VAL:HB	1:B:1223:ASN:HD21	1.63	0.63
1:K:1492:ASN:HB3	1:K:1514:LEU:HD13	1.80	0.63
1:K:1571:PHE:HA	1:K:1574:TYR:HB2	1.80	0.63
4:I:217:SER:O	4:I:221:SER:N	2.26	0.63
1:E:100:LYS:HG3	1:E:130:TRP:HZ2	1.64	0.63
1:E:115:SER:OG	1:E:118:THR:N	2.23	0.63
1:E:309:HIS:N	1:E:314:GLY:O	2.30	0.63
1:E:510:TYR:O	1:E:514:TRP:N	2.26	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:581:GLN:HE21	3:C:604:MET:HA	1.62	0.63
1:B:828:VAL:HA	1:B:831:ASN:HD22	1.63	0.63
1:J:1557:PHE:HD2	1:J:1566:PHE:HD1	1.44	0.63
1:H:772:LEU:HG	1:H:799:TYR:HE1	1.64	0.63
1:E:10:GLN:O	1:E:326:SER:N	2.32	0.63
1:E:123:THR:HG23	1:E:128:TYR:CE1	2.33	0.63
1:E:166:LEU:HA	1:E:183:LEU:HA	1.80	0.63
3:C:779:ASP:OD1	3:C:779:ASP:N	2.30	0.63
1:A:1449:LYS:HA	1:A:1452:LEU:HD12	1.80	0.63
1:K:1456:GLN:OE1	1:K:1464:ASN:ND2	2.31	0.63
1:E:573:ASN:HA	1:E:576:SER:OG	1.99	0.63
3:C:426:GLN:HG3	3:C:455:ASP:O	1.99	0.63
3:C:574:ARG:HG3	3:C:575:PRO:HD3	1.80	0.63
1:M:987:GLU:HA	1:M:990:VAL:HG12	1.80	0.63
2:F:717:ALA:C	1:M:721:PHE:CZ	2.59	0.63
3:C:665:GLU:O	3:C:668:ARG:NH2	2.31	0.63
1:J:1617:GLU:OE1	1:J:1621:LYS:NZ	2.22	0.63
1:L:1405:TYR:HA	1:L:1408:ILE:HD12	1.79	0.63
1:E:296:ASN:OD1	1:E:297:ARG:N	2.32	0.63
1:B:813:PRO:HA	1:B:839:GLN:H	1.63	0.63
4:O:104:ARG:HE	4:O:111:ARG:HH22	1.46	0.63
1:J:1605:GLU:O	1:J:1609:LYS:HG2	1.99	0.63
1:L:1203:ASP:OD1	1:L:1218:TYR:OH	2.16	0.63
1:E:87:THR:HA	1:E:103:THR:HA	1.79	0.63
1:E:445:LYS:HA	1:E:448:LEU:HD12	1.80	0.63
3:C:440:LEU:HD12	3:C:445:LYS:HG3	1.80	0.63
3:C:762:PHE:HA	3:C:765:GLU:HG2	1.80	0.63
1:M:890:PRO:O	1:M:894:LEU:N	2.25	0.63
1:A:1605:GLU:HB2	4:D:210:LYS:HE3	1.81	0.63
1:B:1109:SER:OG	1:B:1110:GLN:NE2	2.32	0.63
4:N:205:SER:O	4:N:208:GLN:NE2	2.32	0.63
1:E:226:GLY:O	1:E:250:VAL:N	2.30	0.63
1:E:534:GLN:HG2	1:E:565:PHE:HA	1.81	0.63
3:C:498:VAL:HG13	3:C:532:PHE:HD1	1.62	0.63
3:C:812:LEU:HB2	3:C:837:ARG:NH1	2.14	0.63
1:M:687:SER:HA	1:M:690:HIS:HD2	1.61	0.63
1:K:1470:LEU:O	1:K:1474:GLU:CB	2.47	0.63
1:L:943:LEU:HD21	1:L:959:VAL:HG11	1.80	0.63
1:L:1082:VAL:HG21	1:L:1107:VAL:HG13	1.81	0.63
1:L:1234:LEU:HD22	1:L:1236:GLU:HB2	1.81	0.63
1:L:1309:LEU:HD12	1:L:1312:ALA:HB3	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:72:ILE:HG13	1:E:81:ALA:HB3	1.80	0.62
1:E:523:ARG:HE	1:E:552:VAL:HG11	1.63	0.62
1:E:523:ARG:HH21	1:E:552:VAL:HG21	1.64	0.62
3:C:441:GLN:OE1	3:C:441:GLN:N	2.29	0.62
3:C:519:ARG:HG2	3:C:523:ARG:NH1	2.13	0.62
3:C:549:ILE:O	3:C:553:PHE:HD2	1.82	0.62
1:M:826:GLU:HA	1:M:829:ILE:HD13	1.81	0.62
1:L:1444:GLN:HB3	1:L:1447:LEU:HD12	1.81	0.62
1:H:680:GLN:HG3	1:H:684:GLN:HE21	1.63	0.62
1:H:778:CYS:O	1:H:782:ASP:N	2.31	0.62
1:E:118:THR:HA	1:E:131:SER:HA	1.80	0.62
1:E:702:PHE:O	1:E:706:LYS:N	2.31	0.62
3:C:510:TYR:O	3:C:513:ASP:HB3	1.99	0.62
3:C:540:GLU:HA	3:C:569:ALA:HB1	1.81	0.62
3:C:709:GLU:O	3:C:712:PHE:HB3	1.99	0.62
1:K:1408:ILE:HG13	1:K:1419:LEU:HD22	1.79	0.62
1:E:628:GLU:O	1:E:631:THR:OG1	2.15	0.62
3:C:494:GLU:HA	3:C:520:ASN:HB3	1.80	0.62
1:L:1388:GLU:HG2	1:L:1389:GLY:H	1.64	0.62
1:E:259:ASP:OD1	1:E:278:LYS:N	2.32	0.62
1:E:386:ASN:OD1	1:E:424:GLN:NE2	2.32	0.62
1:M:581:GLN:HG3	1:M:608:TYR:HE1	1.63	0.62
1:M:1008:LEU:HA	1:M:1011:ILE:HG22	1.80	0.62
1:A:1449:LYS:HE2	1:A:1453:ARG:HD3	1.79	0.62
1:A:1526:GLU:O	1:A:1530:LYS:NZ	2.21	0.62
1:L:1259:ALA:O	1:L:1263:GLY:N	2.30	0.62
1:E:180:ALA:HA	1:E:195:GLU:HA	1.81	0.62
1:E:282:ILE:N	1:E:296:ASN:O	2.26	0.62
1:E:368:PHE:CE1	1:E:383:VAL:HG23	2.34	0.62
1:E:653:ASN:HB3	1:E:674:ASN:HD21	1.65	0.62
2:F:748:GLN:CG	1:M:720:ASN:ND2	2.59	0.62
3:C:534:GLN:HB2	3:C:565:PHE:HA	1.80	0.62
3:C:677:GLN:O	3:C:680:GLN:NE2	2.31	0.62
1:B:1025:GLN:N	1:B:1025:GLN:OE1	2.33	0.62
3:C:581:GLN:CB	3:C:608:TYR:HB2	2.29	0.62
3:C:664:LEU:H	3:C:664:LEU:HD12	1.63	0.62
4:O:113:ARG:HH21	4:O:117:LEU:HG	1.65	0.62
1:L:1025:GLN:HA	1:L:1028:LEU:HB3	1.80	0.62
1:E:579:PRO:O	1:E:582:THR:OG1	2.16	0.62
3:C:514:TRP:CZ3	3:C:517:LEU:HD22	2.35	0.62
3:C:592:ALA:C	3:C:594:GLN:H	2.08	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:755:ASP:H	3:C:758:ARG:NH2	1.98	0.62
1:M:747:ILE:O	1:M:751:SER:N	2.27	0.62
1:B:1047:LEU:HD12	1:B:1048:ASP:H	1.64	0.62
1:L:948:VAL:HG21	1:L:978:ALA:HA	1.81	0.62
1:H:749:ARG:O	1:H:752:ASN:ND2	2.30	0.62
1:E:433:LEU:HD23	1:E:466:LEU:HD11	1.82	0.62
3:C:499:GLN:HA	3:C:502:VAL:HG22	1.82	0.62
3:C:518:LEU:O	3:C:522:MET:HG3	2.00	0.62
3:C:675:ILE:HA	3:C:676:ARG:NH1	2.15	0.62
3:C:742:LYS:HE2	1:H:641:VAL:HG11	0.64	0.62
1:K:1500:GLU:HA	1:K:1508:ARG:HB3	1.82	0.62
1:L:1099:ALA:HA	1:L:1102:CYS:HB2	1.80	0.62
1:H:648:PRO:HA	1:H:651:LEU:HB2	1.82	0.62
1:E:38:ILE:N	1:E:53:ILE:O	2.33	0.62
3:C:504:TYR:O	3:C:510:TYR:N	2.33	0.62
3:C:553:PHE:O	3:C:557:ASN:N	2.32	0.62
3:C:689:TYR:HA	3:C:692:GLN:NE2	2.15	0.62
1:M:574:ARG:HB3	1:M:575:PRO:HD3	1.82	0.62
1:M:610:ARG:HB2	1:M:633:LEU:HD21	1.79	0.62
1:M:717:SER:O	1:M:720:ASN:ND2	2.33	0.62
1:A:1491:ASP:OD1	1:A:1492:ASN:N	2.30	0.62
1:H:687:SER:HA	1:H:690:HIS:CD2	2.34	0.62
1:E:179:GLY:O	1:E:196:GLY:N	2.32	0.62
1:E:599:ILE:HA	1:E:602:ASN:HB2	1.82	0.62
1:E:654:TYR:HE1	1:E:680:GLN:HB2	1.65	0.62
2:F:718:VAL:HG12	1:M:723:GLN:CG	2.25	0.62
3:C:523:ARG:HG3	3:C:523:ARG:O	1.98	0.62
3:C:724:ASP:HB3	3:C:727:VAL:HG12	1.81	0.62
3:C:741:ILE:HB	3:C:745:GLU:HG2	1.81	0.62
3:C:772:LEU:HB2	3:C:775:ILE:HD13	1.81	0.62
4:O:155:ARG:NH1	4:O:158:ASP:O	2.33	0.62
1:J:1624:GLU:OE2	1:J:1625:GLN:NE2	2.33	0.62
1:E:277:THR:OG1	1:E:281:TYR:HB2	1.99	0.61
3:C:712:PHE:CE1	3:C:734:ALA:HB3	2.35	0.61
3:C:719:VAL:CG2	3:C:727:VAL:HG11	2.30	0.61
3:C:760:LYS:O	3:C:764:LYS:HG3	2.00	0.61
3:C:821:ASP:OD1	3:C:822:VAL:N	2.33	0.61
1:M:812:LEU:O	1:M:816:ILE:HG12	2.00	0.61
1:B:1201:VAL:HA	1:B:1204:ARG:HB2	1.81	0.61
1:H:715:LEU:O	1:H:719:VAL:N	2.27	0.61
1:E:217:CYS:SG	1:E:230:ILE:HG12	2.40	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:368:PHE:HB3	1:E:372:PHE:HE2	1.65	0.61
1:A:1445:LEU:H	1:A:1445:LEU:HD12	1.65	0.61
1:A:1596:MET:HA	1:A:1599:PHE:HD2	1.65	0.61
1:B:940:PHE:HA	1:B:943:LEU:HD23	1.82	0.61
1:B:1236:GLU:OE2	1:B:1239:ALA:N	2.33	0.61
4:D:130:GLU:HA	4:D:133:LYS:HD2	1.82	0.61
1:J:1547:THR:HG23	1:J:1548:GLU:HG2	1.81	0.61
1:K:1521:TRP:O	1:K:1522:LYS:HG2	2.01	0.61
1:L:1032:ALA:HB2	1:L:1043:TYR:HE2	1.65	0.61
1:H:682:CYS:HA	1:H:685:VAL:HG12	1.82	0.61
1:E:335:ILE:HD11	1:E:352:ALA:HB2	1.82	0.61
1:E:474:LEU:O	1:E:477:SER:OG	2.14	0.61
1:E:654:TYR:CE1	1:E:680:GLN:HB2	2.34	0.61
1:E:655:PHE:HA	1:E:658:LEU:HD12	1.81	0.61
3:C:528:GLN:HB3	3:C:561:GLN:NE2	2.15	0.61
3:C:851:LYS:HE3	3:C:852:ARG:NH1	2.14	0.61
1:M:578:GLY:HA2	1:M:607:HIS:HB3	1.81	0.61
1:M:701:LEU:O	1:M:704:SER:OG	2.17	0.61
1:K:1620:ARG:O	1:K:1624:GLU:HG2	2.00	0.61
1:H:687:SER:HA	1:H:690:HIS:HD2	1.64	0.61
1:E:527:ASP:H	1:E:531:GLN:HE22	1.48	0.61
3:C:519:ARG:CG	3:C:523:ARG:HH12	2.12	0.61
1:M:617:CYS:HB2	1:M:622:LEU:HB2	1.80	0.61
4:O:118:ASP:OD1	4:O:119:ALA:N	2.34	0.61
1:L:1086:ILE:HA	1:L:1090:GLY:HA2	1.81	0.61
1:L:1400:ASN:OD1	1:L:1403:LEU:N	2.30	0.61
1:E:527:ASP:N	1:E:531:GLN:HE22	1.99	0.61
3:C:577:GLU:HB2	3:C:579:PRO:HD2	1.82	0.61
1:B:971:ILE:O	1:B:975:VAL:HG13	2.01	0.61
1:B:1035:ALA:O	1:B:1037:ARG:NH1	2.33	0.61
4:D:125:GLU:HG3	4:D:129:ARG:HH22	1.64	0.61
1:L:1026:ASN:O	1:L:1030:LEU:HB2	2.00	0.61
1:L:1372:ASP:OD1	1:L:1372:ASP:N	2.30	0.61
3:C:529:GLY:H	3:C:561:GLN:HG2	1.64	0.61
3:C:553:PHE:HA	3:C:558:LEU:HB2	1.81	0.61
3:C:696:GLN:O	3:C:699:ILE:HG12	2.00	0.61
1:B:1021:HIS:HB2	1:B:1025:GLN:CD	2.25	0.61
1:L:1020:GLU:OE1	1:L:1022:ARG:NH1	2.33	0.61
3:C:683:VAL:HG21	3:C:710:GLY:HA3	1.83	0.61
1:M:1040:VAL:HA	1:M:1043:TYR:CD2	2.35	0.61
1:A:1378:MET:HE2	1:A:1386:TRP:HD1	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1586:ALA:HA	1:J:1591:ILE:HG13	1.83	0.61
1:K:1398:VAL:HG11	1:K:1403:LEU:HD22	1.83	0.61
1:K:1609:LYS:O	1:K:1613:LEU:HG	2.01	0.61
3:C:545:ASP:OD1	3:C:545:ASP:N	2.33	0.61
1:M:970:LEU:O	1:M:974:VAL:HG13	2.01	0.61
1:B:1174:ILE:HG13	1:B:1201:VAL:HG11	1.82	0.61
1:E:83:LYS:NZ	1:E:111:TRP:CD2	2.68	0.61
1:E:708:PHE:HB3	1:E:712:PHE:CZ	2.36	0.61
2:F:808:LYS:HG3	2:F:813:VAL:HG22	1.82	0.61
3:C:724:ASP:O	3:C:727:VAL:HG12	2.00	0.61
1:M:901:ASP:OD2	1:M:904:VAL:N	2.28	0.61
1:A:1376:ILE:HA	1:A:1406:ARG:HH22	1.65	0.61
1:B:873:PRO:O	1:B:877:ASN:N	2.28	0.61
1:H:790:TYR:O	1:H:794:ASN:ND2	2.34	0.61
4:N:215:LEU:HA	4:N:218:VAL:HG12	1.82	0.61
1:E:224:ALA:HB1	1:E:227:LYS:HE3	1.83	0.61
3:C:472:PRO:HG2	3:C:494:GLU:H	1.66	0.61
3:C:741:ILE:HG13	3:C:742:LYS:N	2.15	0.61
1:M:913:ASP:HB3	1:M:916:LEU:HG	1.83	0.61
1:M:1071:ILE:HA	1:M:1074:LYS:HB3	1.81	0.61
1:B:909:CYS:HB2	1:B:912:ARG:HB2	1.83	0.61
1:L:1280:ALA:HB2	1:L:1316:MET:HE1	1.82	0.61
1:E:109:THR:N	1:E:122:VAL:O	2.33	0.60
2:F:835:GLN:H	2:F:835:GLN:CD	2.08	0.60
3:C:479:TYR:HD2	3:C:489:ILE:HA	1.66	0.60
3:C:837:ARG:HH11	3:C:840:PHE:HD1	1.49	0.60
1:B:955:LEU:O	1:B:958:SER:OG	2.16	0.60
1:H:748:CYS:HB2	1:H:777:VAL:HG21	1.83	0.60
1:H:815:VAL:O	1:H:819:LEU:HG	2.00	0.60
1:E:120:ALA:HA	1:E:129:HIS:HA	1.84	0.60
1:E:128:TYR:HA	1:E:140:LYS:HA	1.82	0.60
1:E:449:GLU:O	1:E:453:LYS:HG3	2.01	0.60
1:E:519:ARG:HB3	1:E:523:ARG:CZ	2.31	0.60
1:E:676:ARG:HB2	1:E:705:PHE:HD1	1.66	0.60
3:C:424:GLN:HE21	3:C:427:LEU:HD11	1.66	0.60
3:C:545:ASP:OD2	3:C:548:GLN:HB2	2.01	0.60
3:C:577:GLU:OE1	3:C:580:LEU:N	2.33	0.60
3:C:729:PHE:HD1	3:C:759:VAL:HG22	1.66	0.60
1:M:1042:GLU:HB2	1:M:1046:ARG:HH21	1.66	0.60
1:A:1440:SER:HA	1:A:1445:LEU:HD11	1.82	0.60
1:E:362:GLU:OE1	1:E:366:ARG:NH2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:397:THR:HG22	3:C:400:ARG:HH21	1.67	0.60
3:C:770:ASP:OD1	3:C:770:ASP:N	2.32	0.60
1:M:588:ASN:O	1:M:592:ALA:N	2.34	0.60
1:M:648:PRO:HG3	1:M:653:ASN:HD22	1.65	0.60
1:M:696:GLN:OE1	1:M:696:GLN:N	2.35	0.60
1:B:1187:GLU:OE2	1:B:1220:ASN:ND2	2.34	0.60
1:J:1605:GLU:O	1:J:1608:THR:OG1	2.16	0.60
1:H:796:LEU:HD22	1:H:800:ILE:HG23	1.83	0.60
3:C:462:GLU:O	3:C:466:LEU:HG	2.01	0.60
1:M:1003:GLU:OE2	1:M:1037:ARG:NH2	2.34	0.60
1:L:1144:ALA:HA	1:L:1149:ASN:HD21	1.65	0.60
1:E:33:GLU:HG3	1:E:113:TRP:HD1	1.67	0.60
1:M:900:TYR:O	1:M:923:ARG:NH2	2.35	0.60
1:A:1415:LYS:HB3	1:A:1418:LEU:HB2	1.84	0.60
1:B:1086:ILE:HA	1:B:1090:GLY:HA2	1.83	0.60
1:B:1260:CYS:HB3	1:B:1265:GLU:HB2	1.83	0.60
1:E:182:GLN:NE2	1:E:191:SER:OG	2.33	0.60
1:E:216:PHE:N	1:E:231:ILE:O	2.30	0.60
1:E:372:PHE:HE1	1:E:417:TYR:CE1	2.19	0.60
1:E:644:HIS:CD2	1:E:666:CYS:HB3	2.36	0.60
1:E:698:LEU:HB3	1:E:702:PHE:CE2	2.36	0.60
3:C:393:ARG:HD2	3:C:431:GLU:HB3	1.83	0.60
3:C:617:CYS:O	3:C:621:GLY:N	2.32	0.60
1:M:702:PHE:O	1:M:707:SER:HB3	2.02	0.60
1:A:1265:GLU:HB3	1:A:1268:LEU:HB2	1.82	0.60
1:B:1230:THR:O	1:B:1234:LEU:HB2	2.01	0.60
4:D:114:LEU:HD23	4:D:117:LEU:HD12	1.84	0.60
1:L:1032:ALA:O	1:L:1036:ASP:N	2.32	0.60
1:L:1216:LEU:O	1:L:1220:ASN:ND2	2.35	0.60
1:L:1365:TYR:CE2	1:L:1373:ASN:HB3	2.37	0.60
1:L:1365:TYR:CZ	1:L:1373:ASN:HB3	2.37	0.60
1:E:183:LEU:N	1:E:192:GLN:O	2.33	0.60
1:E:183:LEU:HD23	1:E:192:GLN:HE21	1.65	0.60
1:M:944:SER:HA	1:M:947:LEU:HD12	1.84	0.60
1:A:1478:GLN:HA	1:A:1481:ARG:HD3	1.81	0.60
1:B:968:ARG:HD2	1:B:971:ILE:HD11	1.83	0.60
1:B:1115:GLN:O	1:B:1120:MET:N	2.34	0.60
4:O:140:ASN:HA	4:O:143:GLN:HG2	1.83	0.60
1:H:724:ASP:O	1:H:728:HIS:ND1	2.21	0.60
1:E:75:PRO:HD2	1:E:116:LEU:HA	1.84	0.60
1:E:218:PHE:CE2	1:E:229:HIS:HB2	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:260:PHE:O	1:E:278:LYS:N	2.34	0.60
1:E:283:HIS:HB3	1:E:285:TYR:CE1	2.37	0.60
1:E:339:THR:HG22	1:E:345:PRO:HA	1.83	0.60
1:E:506:LYS:HD3	1:E:539:ASP:O	2.02	0.60
1:E:516:PHE:O	1:E:520:ASN:ND2	2.35	0.60
3:C:772:LEU:O	3:C:775:ILE:HG12	2.01	0.60
1:M:664:LEU:O	1:M:668:ARG:HG2	2.02	0.60
1:K:1405:TYR:OH	1:K:1431:ASP:O	2.19	0.60
1:E:32:MET:HB3	1:E:305:VAL:HG11	1.84	0.60
1:E:112:LYS:NZ	1:E:156:TYR:O	2.34	0.60
1:E:156:TYR:CE1	1:E:165:LEU:HB3	2.37	0.60
1:E:170:ILE:HG22	1:E:179:GLY:HA2	1.84	0.60
1:E:546:ILE:HD12	1:E:580:LEU:HD22	1.83	0.60
1:E:670:MET:O	1:E:674:ASN:ND2	2.35	0.60
3:C:468:LYS:HG2	3:C:475:ALA:HB3	1.84	0.60
3:C:493:ALA:HB1	3:C:501:ILE:HG12	1.83	0.60
3:C:670:MET:HE1	3:C:675:ILE:O	2.02	0.60
1:B:1132:ASP:O	1:B:1163:LYS:NZ	2.33	0.60
1:B:1199:GLN:NE2	1:B:1223:ASN:OD1	2.27	0.60
4:O:149:LYS:O	4:O:153:ASN:ND2	2.35	0.60
3:C:418:PHE:CZ	3:C:447:LEU:HD13	2.36	0.60
3:C:845:LEU:O	3:C:849:VAL:HG12	2.01	0.60
1:B:876:HIS:HB2	1:B:900:TYR:HB3	1.84	0.60
1:L:1251:ARG:HA	1:L:1254:LYS:HE2	1.84	0.60
1:L:1265:GLU:OE1	1:L:1267:ARG:N	2.35	0.60
1:H:846:VAL:HA	1:H:849:VAL:HG22	1.84	0.60
3:C:498:VAL:HG13	3:C:532:PHE:CD1	2.36	0.59
1:M:715:LEU:HD23	1:M:731:TYR:HB2	1.82	0.59
1:B:816:ILE:O	1:B:820:LEU:HG	2.02	0.59
1:L:1150:TRP:HB3	1:L:1176:ALA:HB1	1.82	0.59
4:N:204:LYS:H	4:N:207:LYS:HZ1	1.50	0.59
1:E:154:ILE:HD11	1:E:170:ILE:HD13	1.83	0.59
1:E:446:GLN:O	1:E:450:LYS:HG3	2.02	0.59
3:C:712:PHE:HE1	3:C:731:TYR:O	1.84	0.59
3:C:831:ASN:HA	3:C:834:LEU:HB2	1.84	0.59
1:M:848:GLU:OE2	1:M:852:ARG:NH1	2.35	0.59
1:E:209:ASN:OD1	1:E:241:GLN:N	2.28	0.59
3:C:440:LEU:HD11	3:C:470:VAL:HG21	1.83	0.59
3:C:851:LYS:HE3	3:C:852:ARG:HH12	1.67	0.59
1:A:1333:ARG:NE	1:A:1337:GLU:OE2	2.31	0.59
1:A:1532:SER:OG	1:A:1537:ALA:N	2.30	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:N:129:ARG:HG2	4:N:133:LYS:HE3	1.85	0.59
1:E:211:GLU:N	1:E:240:ASN:HD21	2.00	0.59
1:E:366:ARG:HA	1:E:369:ASN:HD22	1.67	0.59
3:C:506:LYS:NZ	3:C:538:GLN:HE21	2.01	0.59
3:C:567:LEU:HD22	3:C:571:LYS:HE3	1.85	0.59
1:M:1023:ASN:H	1:M:1026:ASN:ND2	1.98	0.59
1:B:1166:GLU:HG3	1:B:1169:VAL:H	1.67	0.59
1:J:1539:GLN:O	1:J:1542:SER:OG	2.20	0.59
1:E:377:TYR:O	1:E:381:ALA:CB	2.50	0.59
3:C:411:THR:OG1	3:C:416:GLN:OE1	2.20	0.59
3:C:528:GLN:HA	3:C:558:LEU:HG	1.84	0.59
3:C:719:VAL:HG21	3:C:727:VAL:HG11	1.84	0.59
1:M:945:ARG:HA	1:M:948:VAL:HG22	1.84	0.59
1:A:1502:HIS:CE1	1:A:1504:LEU:HD12	2.37	0.59
1:J:1535:LYS:O	1:J:1539:GLN:N	2.34	0.59
1:K:1372:ASP:O	1:K:1376:ILE:HG12	2.03	0.59
1:K:1422:LEU:HA	1:K:1425:VAL:HG22	1.84	0.59
1:L:1299:LEU:HD23	1:L:1302:MET:HE2	1.83	0.59
1:H:816:ILE:O	1:H:820:LEU:HG	2.02	0.59
1:E:52:ILE:HB	1:E:62:ILE:HB	1.84	0.59
1:E:90:ILE:N	1:E:100:LYS:O	2.35	0.59
1:E:114:ILE:HD13	1:E:120:ALA:HB2	1.84	0.59
1:E:197:HIS:CD2	1:E:220:VAL:HG23	2.37	0.59
2:F:746:ALA:CA	1:M:721:PHE:CA	2.80	0.59
3:C:421:LEU:HD13	3:C:456:LYS:HD3	1.84	0.59
3:C:690:HIS:CE1	3:C:715:LEU:HD21	2.36	0.59
3:C:729:PHE:HD2	3:C:730:LYS:HD3	1.68	0.59
1:A:1437:ASN:O	1:A:1440:SER:OG	2.16	0.59
1:B:826:GLU:H	1:B:826:GLU:CD	2.11	0.59
1:B:829:ILE:O	1:B:833:ILE:HG13	2.02	0.59
1:B:1068:ALA:HA	1:B:1071:ILE:HD12	1.82	0.59
1:L:1332:MET:O	1:L:1336:LEU:CB	2.50	0.59
1:H:747:ILE:O	1:H:751:SER:N	2.32	0.59
4:N:146:GLN:HE22	4:N:149:LYS:HD2	1.67	0.59
4:N:165:PRO:HB2	4:N:198:LEU:HD12	1.83	0.59
1:E:527:ASP:O	1:E:531:GLN:NE2	2.36	0.59
3:C:435:LEU:HG	3:C:451:TRP:CZ3	2.37	0.59
3:C:650:TRP:CE2	3:C:654:TYR:CE2	2.90	0.59
1:M:584:LEU:HA	1:M:587:MET:HE2	1.84	0.59
1:M:771:GLN:OE1	1:M:771:GLN:N	2.29	0.59
1:M:1000:LEU:HB3	1:M:1004:LEU:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1323:LEU:HD13	1:A:1326:LYS:HD2	1.84	0.59
1:J:1554:LEU:HD11	1:J:1569:CYS:HB3	1.85	0.59
1:L:1388:GLU:OE1	1:L:1388:GLU:N	2.35	0.59
3:C:468:LYS:HG2	3:C:475:ALA:HB1	1.83	0.59
3:C:498:VAL:HG11	3:C:535:MET:CE	2.32	0.59
3:C:804:VAL:O	3:C:809:PRO:HA	2.03	0.59
4:N:202:ASN:O	4:N:204:LYS:NZ	2.35	0.59
4:N:217:SER:O	4:N:221:SER:N	2.27	0.59
1:A:1512:ALA:HA	1:A:1524:SER:HB2	1.83	0.59
1:J:1499:LEU:HB2	1:J:1511:ALA:HB2	1.83	0.59
1:L:1201:VAL:HG22	1:L:1204:ARG:HH11	1.68	0.59
1:E:167:LEU:O	1:E:182:GLN:N	2.36	0.59
1:E:199:ALA:HB1	1:E:216:PHE:CE1	2.38	0.59
1:E:214:THR:O	1:E:233:VAL:N	2.36	0.59
1:E:682:CYS:O	1:E:686:ALA:CB	2.49	0.59
3:C:371:LEU:HB2	3:C:380:ALA:HB2	1.85	0.59
3:C:546:ILE:HD13	3:C:580:LEU:HD13	1.85	0.59
3:C:692:GLN:HG3	3:C:693:LEU:HD23	1.85	0.59
1:A:1471:PHE:HA	1:A:1474:GLU:HB3	1.85	0.59
4:D:142:ARG:HA	4:D:145:GLU:HG3	1.84	0.59
1:L:1129:ILE:HB	1:L:1130:LYS:NZ	2.18	0.59
4:N:146:GLN:O	4:N:150:ASN:ND2	2.35	0.59
1:E:33:GLU:OE1	1:E:113:TRP:N	2.32	0.58
3:C:608:TYR:CD1	3:C:609:ASP:N	2.69	0.58
3:C:820:LEU:HB3	3:C:852:ARG:NE	2.16	0.58
1:M:669:ALA:O	1:M:672:SER:OG	2.18	0.58
1:M:793:ARG:HH22	1:L:1221:VAL:HA	1.68	0.58
1:A:1604:LYS:HE3	4:D:210:LYS:HZ1	1.68	0.58
1:K:1554:LEU:HB3	1:K:1566:PHE:HZ	1.66	0.58
1:E:642:HIS:HA	1:E:645:LEU:HD12	1.85	0.58
2:F:898:TRP:O	2:F:899:ILE:HD12	2.03	0.58
3:C:654:TYR:O	3:C:688:LYS:HE2	2.02	0.58
3:C:675:ILE:HA	3:C:676:ARG:CZ	2.33	0.58
3:C:676:ARG:HA	3:C:679:LEU:CG	2.34	0.58
3:C:757:GLU:OE1	3:C:757:GLU:N	2.36	0.58
1:B:941:LYS:O	1:B:944:SER:OG	2.17	0.58
4:D:104:ARG:HH11	4:D:108:GLU:HB3	1.68	0.58
1:J:1523:GLN:O	1:J:1527:LEU:N	2.32	0.58
1:L:1203:ASP:OD1	1:L:1206:TYR:OH	2.21	0.58
1:E:6:PRO:O	1:E:330:GLU:N	2.32	0.58
1:E:658:LEU:HD21	1:E:684:GLN:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:424:GLN:NE2	3:C:427:LEU:HD11	2.18	0.58
3:C:724:ASP:HB3	3:C:727:VAL:CG1	2.33	0.58
3:C:749:ARG:HG3	3:C:750:GLU:HG3	1.85	0.58
3:C:762:PHE:HA	3:C:765:GLU:OE2	2.04	0.58
1:A:1402:GLU:HA	1:A:1405:TYR:HD2	1.68	0.58
1:K:1420:ASN:O	1:K:1424:MET:HG2	2.03	0.58
4:N:195:VAL:HB	4:N:223:LYS:HE2	1.83	0.58
1:E:511:THR:HA	1:E:514:TRP:HB2	1.85	0.58
1:M:898:PRO:HD2	1:M:899:TYR:CZ	2.39	0.58
1:A:1356:HIS:HE1	4:D:114:LEU:HD22	1.68	0.58
1:B:1165:ARG:NH1	1:B:1193:PRO:O	2.35	0.58
1:K:1471:PHE:HD1	1:K:1476:ASP:HB3	1.68	0.58
1:M:1003:GLU:HA	1:M:1007:LEU:HD21	1.85	0.58
1:A:1290:TYR:HB3	1:A:1299:LEU:HD23	1.85	0.58
1:B:921:TYR:O	1:B:925:GLN:N	2.35	0.58
1:E:284:LEU:O	1:E:293:ILE:N	2.37	0.58
1:E:661:GLU:OE2	1:E:690:HIS:ND1	2.37	0.58
3:C:572:ASN:C	3:C:575:PRO:HD2	2.29	0.58
3:C:597:ASP:N	3:C:625:ARG:HE	2.01	0.58
3:C:662:ASP:HB3	3:C:665:GLU:HG2	1.84	0.58
1:M:742:LYS:H	1:M:742:LYS:HD2	1.68	0.58
1:B:1208:GLU:HB2	1:B:1210:MET:HG2	1.85	0.58
1:J:1580:ASP:HA	1:K:1603:MET:HE3	1.86	0.58
1:E:478:VAL:O	1:E:482:ALA:N	2.35	0.58
1:E:521:VAL:HG11	1:E:536:LEU:HD12	1.84	0.58
2:F:854:ILE:HD13	2:F:935:LEU:HD12	1.84	0.58
3:C:581:GLN:NE2	3:C:604:MET:HA	2.19	0.58
4:D:217:SER:HA	4:D:220:MET:HE2	1.86	0.58
1:K:1534:TYR:CZ	4:N:164:GLN:HB2	2.38	0.58
1:L:995:PHE:HA	1:L:1000:LEU:HB2	1.85	0.58
1:L:1231:LEU:HB3	1:L:1236:GLU:HB3	1.85	0.58
1:L:1322:ILE:O	1:L:1325:SER:OG	2.21	0.58
1:H:828:VAL:O	1:H:832:LEU:HG	2.03	0.58
1:E:228:LEU:N	1:E:248:VAL:O	2.34	0.58
1:E:513:ASP:HA	1:E:516:PHE:CD2	2.39	0.58
1:E:650:TRP:O	1:E:654:TYR:HD2	1.87	0.58
1:E:691:GLU:HB3	1:E:723:GLN:CD	2.29	0.58
3:C:514:TRP:HA	3:C:514:TRP:CE3	2.37	0.58
3:C:760:LYS:HA	3:C:763:LEU:HG	1.86	0.58
1:M:638:ARG:HA	1:M:641:VAL:HG12	1.85	0.58
1:A:1306:ALA:HA	1:A:1309:LEU:HD21	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1410:PHE:O	1:A:1414:PHE:N	2.36	0.58
1:A:1492:ASN:HD22	1:A:1495:LEU:HD22	1.67	0.58
1:A:1502:HIS:HE1	1:A:1504:LEU:HD12	1.69	0.58
1:J:1583:LEU:HB2	1:K:1603:MET:HE1	1.85	0.58
1:K:1382:PRO:HB3	1:K:1410:PHE:HZ	1.69	0.58
4:I:158:ASP:O	4:I:162:TYR:N	2.36	0.58
1:E:83:LYS:HE3	1:E:111:TRP:CE3	2.36	0.58
1:E:447:LEU:HA	1:E:450:LYS:HD2	1.85	0.58
1:E:614:ALA:O	1:E:618:GLU:HG3	2.03	0.58
3:C:365:ALA:O	3:C:369:ASN:ND2	2.37	0.58
3:C:809:PRO:HB2	3:C:837:ARG:NH2	2.19	0.58
1:M:968:ARG:NH2	1:M:972:ASP:OD1	2.36	0.58
1:A:1355:ALA:HB1	1:A:1357:LEU:HG	1.86	0.58
1:A:1460:ASN:OD1	1:A:1461:LYS:N	2.36	0.58
1:B:886:SER:HG	1:B:888:ASN:ND2	2.01	0.58
1:L:1324:TYR:O	1:L:1328:LYS:N	2.37	0.58
1:H:642:HIS:O	1:H:646:LEU:N	2.35	0.58
1:E:227:LYS:HA	1:E:249:ASP:HA	1.85	0.58
1:E:304:PHE:HE2	1:E:320:ARG:HB2	1.68	0.58
3:C:459:CYS:HB3	3:C:482:ALA:HB1	1.86	0.58
3:C:546:ILE:HG23	3:C:549:ILE:HD12	1.85	0.58
3:C:556:TYR:CB	3:C:558:LEU:HD13	2.32	0.58
1:M:689:TYR:HE2	1:M:698:LEU:HD21	1.69	0.58
1:M:778:CYS:O	1:M:782:ASP:N	2.37	0.58
1:M:1047:LEU:HG	1:M:1048:ASP:H	1.69	0.58
1:A:1411:TYR:HD2	1:A:1419:LEU:HD13	1.69	0.58
1:J:1499:LEU:HB3	1:J:1507:PHE:O	2.04	0.58
1:J:1596:MET:O	1:J:1600:ILE:HG13	2.04	0.58
1:E:676:ARG:NE	1:E:705:PHE:HA	2.16	0.57
3:C:599:ILE:CG2	3:C:604:MET:HB2	2.31	0.57
3:C:664:LEU:O	3:C:667:LEU:HG	2.04	0.57
1:M:909:CYS:HA	1:M:912:ARG:HD3	1.86	0.57
1:B:855:LEU:HD12	1:B:882:ILE:HB	1.86	0.57
1:B:1067:GLU:N	1:B:1067:GLU:OE1	2.34	0.57
1:L:1171:THR:O	1:L:1174:ILE:HG12	2.04	0.57
1:L:1235:GLY:HA2	1:L:1237:TYR:CZ	2.38	0.57
1:H:667:LEU:O	1:H:671:LEU:HG	2.04	0.57
1:H:754:TYR:HE2	1:H:759:VAL:HG21	1.68	0.57
1:H:830:LYS:HE3	1:H:834:LEU:HD21	1.86	0.57
4:N:195:VAL:HG21	4:N:223:LYS:HG2	1.86	0.57
1:E:379:GLU:O	1:E:383:VAL:HG22	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:747:LEU:H	1:M:720:ASN:HA	1.69	0.57
3:C:451:TRP:CD1	3:C:456:LYS:HD2	2.38	0.57
3:C:664:LEU:H	3:C:664:LEU:CD1	2.17	0.57
3:C:689:TYR:CE1	3:C:693:LEU:HD21	2.39	0.57
1:M:676:ARG:HA	1:M:679:LEU:HB2	1.86	0.57
1:M:856:LYS:HD2	1:M:856:LYS:N	2.18	0.57
1:A:1604:LYS:NZ	4:D:213:SER:OG	2.26	0.57
1:J:1540:TYR:HA	1:J:1543:GLU:HG3	1.85	0.57
1:L:1438:TYR:HA	1:L:1441:LYS:HE2	1.85	0.57
1:E:459:CYS:HB3	1:E:481:ARG:HB3	1.87	0.57
1:E:484:VAL:HG12	1:E:504:TYR:CE2	2.39	0.57
1:E:616:LEU:HD23	1:E:619:LYS:HZ1	1.69	0.57
2:F:867:LYS:NZ	2:F:937:ASN:O	2.37	0.57
3:C:393:ARG:NE	3:C:427:LEU:HD12	2.18	0.57
1:M:761:ASN:O	1:M:764:LYS:HG2	2.04	0.57
1:B:1242:ASP:HA	1:B:1245:ARG:NE	2.19	0.57
4:D:146:GLN:O	4:D:146:GLN:NE2	2.38	0.57
1:E:433:LEU:HB3	1:E:437:ARG:CZ	2.35	0.57
1:E:545:ASP:H	1:E:548:GLN:CD	2.13	0.57
3:C:490:GLN:HB3	3:C:513:ASP:CB	2.32	0.57
3:C:511:THR:HG23	3:C:543:LEU:HD12	1.87	0.57
1:M:1037:ARG:HB2	1:M:1039:ARG:HG2	1.84	0.57
1:A:1377:THR:HG23	1:A:1381:HIS:HD2	1.69	0.57
1:B:829:ILE:HG23	1:B:830:LYS:H	1.69	0.57
4:O:108:GLU:OE1	4:O:112:LYS:NZ	2.28	0.57
1:K:1434:ARG:HA	1:K:1437:ASN:HD22	1.68	0.57
1:H:784:VAL:HA	1:H:787:LEU:HB3	1.85	0.57
1:E:221:ARG:HA	1:E:226:GLY:HA2	1.85	0.57
2:F:746:ALA:HB1	1:M:721:PHE:CA	2.33	0.57
3:C:755:ASP:O	3:C:758:ARG:HG2	2.05	0.57
1:A:1421:ASP:N	1:A:1421:ASP:OD1	2.34	0.57
4:D:126:GLN:HE21	4:D:130:GLU:HG3	1.68	0.57
1:H:779:ASP:OD1	1:H:779:ASP:N	2.37	0.57
1:E:159:ASP:N	1:E:164:TRP:O	2.37	0.57
1:E:468:LYS:HZ3	1:E:488:VAL:C	2.13	0.57
2:F:747:LEU:CA	1:M:720:ASN:HA	2.33	0.57
3:C:519:ARG:HG2	3:C:523:ARG:NH2	2.18	0.57
3:C:777:VAL:HA	3:C:780:ARG:HB2	1.86	0.57
1:M:566:LEU:O	1:M:570:LEU:HG	2.04	0.57
1:B:962:GLU:HG2	1:B:967:ARG:NH1	2.20	0.57
4:D:207:LYS:HG3	4:D:211:ASP:HA	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1411:TYR:O	1:K:1415:LYS:N	2.38	0.57
1:L:1085:LEU:HD13	1:L:1095:ALA:HB2	1.86	0.57
1:L:1217:LEU:HA	1:L:1220:ASN:HD21	1.68	0.57
1:L:1224:PHE:HB3	1:L:1247:ALA:HB2	1.85	0.57
4:I:209:CYS:SG	4:I:210:LYS:HG2	2.43	0.57
1:E:346:ASP:HB3	1:E:350:ARG:HH21	1.70	0.57
1:E:605:PHE:HD1	1:E:610:ARG:HG2	1.68	0.57
1:E:696:GLN:NE2	1:E:726:ASP:O	2.29	0.57
3:C:808:ASN:ND2	3:C:811:ARG:HH21	2.03	0.57
1:M:654:TYR:HB3	1:M:688:LYS:HE2	1.86	0.57
1:M:744:VAL:O	1:M:747:ILE:HG12	2.04	0.57
1:M:949:ARG:HA	1:M:949:ARG:CZ	2.34	0.57
1:A:1298:GLU:OE1	1:A:1298:GLU:N	2.31	0.57
1:B:1084:VAL:HA	1:B:1087:GLU:HG3	1.85	0.57
1:J:1577:LEU:HD12	1:J:1578:ARG:H	1.70	0.57
1:K:1415:LYS:HB3	1:K:1418:LEU:HD13	1.86	0.57
1:E:70:SER:HB3	1:E:111:TRP:CH2	2.40	0.57
1:E:303:ILE:HA	1:E:319:ASN:HA	1.87	0.57
1:E:349:LEU:HD21	1:E:363:LEU:HB3	1.85	0.57
3:C:510:TYR:HD2	3:C:513:ASP:H	1.53	0.57
3:C:654:TYR:O	3:C:657:SER:OG	2.21	0.57
1:M:636:ILE:O	1:M:640:VAL:HG23	2.04	0.57
1:M:760:LYS:HA	1:M:763:LEU:HD12	1.86	0.57
1:M:939:LEU:O	1:M:942:SER:OG	2.14	0.57
1:M:1000:LEU:HB2	1:M:1005:ILE:HG13	1.87	0.57
1:A:1421:ASP:O	1:A:1425:VAL:HG23	2.04	0.57
1:B:1150:TRP:HA	1:B:1153:LEU:HD12	1.87	0.57
1:J:1477:TYR:O	1:J:1481:ARG:N	2.30	0.57
1:J:1532:SER:HB2	1:J:1536:ASP:HB2	1.86	0.57
1:L:1350:ARG:NH1	1:L:1350:ARG:HA	2.20	0.57
4:I:204:LYS:HG2	4:I:207:LYS:HE2	1.87	0.57
1:E:232:GLU:OE1	1:E:243:PHE:N	2.34	0.57
1:E:278:LYS:O	1:E:302:THR:OG1	2.18	0.57
1:E:488:VAL:HA	1:E:491:CYS:SG	2.45	0.57
2:F:717:ALA:HB1	1:M:721:PHE:CE1	2.36	0.57
3:C:406:ALA:HA	3:C:413:PRO:HD2	1.87	0.57
3:C:769:THR:H	3:C:771:GLN:HE22	1.53	0.57
3:C:809:PRO:O	3:C:837:ARG:NH1	2.37	0.57
1:K:1615:ALA:O	1:K:1618:SER:OG	2.17	0.57
1:E:261:PRO:HA	1:E:277:THR:HA	1.87	0.57
1:E:281:TYR:CE1	1:E:297:ARG:HB2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:597:ASP:HA	1:E:600:LEU:HD12	1.87	0.57
1:E:695:THR:OG1	1:E:696:GLN:N	2.38	0.57
3:C:452:LEU:HD13	3:C:478:VAL:HG21	1.85	0.57
3:C:490:GLN:HG2	3:C:504:TYR:CD2	2.40	0.57
3:C:719:VAL:HA	3:C:722:SER:HB2	1.87	0.57
4:D:111:ARG:O	4:D:115:GLN:NE2	2.37	0.57
1:L:1310:GLU:HG2	1:L:1311:ARG:HG2	1.87	0.57
3:C:740:GLN:O	3:C:744:VAL:HG23	2.05	0.56
3:C:772:LEU:HA	3:C:775:ILE:HG23	1.86	0.56
1:M:637:LYS:HB3	1:M:638:ARG:NH2	2.19	0.56
1:A:1330:GLN:OE1	1:A:1330:GLN:N	2.38	0.56
1:A:1401:VAL:HA	1:A:1404:TYR:CD2	2.40	0.56
1:J:1574:TYR:OH	1:J:1598:TYR:O	2.23	0.56
1:K:1615:ALA:O	1:K:1619:LEU:HG	2.05	0.56
1:L:1301:THR:HA	1:L:1304:GLU:HG2	1.86	0.56
3:C:486:ASN:HA	3:C:489:ILE:HG22	1.85	0.56
3:C:670:MET:CE	3:C:679:LEU:HD23	2.35	0.56
1:B:874:ALA:O	1:B:878:ALA:N	2.34	0.56
1:B:1115:GLN:HA	1:B:1120:MET:HB2	1.87	0.56
1:J:1572:THR:O	4:I:210:LYS:NZ	2.31	0.56
1:J:1608:THR:C	1:J:1612:LYS:HZ1	2.12	0.56
1:E:125:ASN:O	1:E:144:ARG:N	2.29	0.56
1:E:699:ILE:HG23	1:E:711:LEU:HD22	1.86	0.56
3:C:491:CYS:HA	3:C:516:PHE:CD2	2.40	0.56
3:C:518:LEU:O	3:C:522:MET:N	2.37	0.56
3:C:712:PHE:CE1	3:C:731:TYR:O	2.59	0.56
3:C:747:ILE:O	3:C:751:SER:N	2.39	0.56
3:C:821:ASP:HB3	3:C:852:ARG:NH2	2.21	0.56
3:C:846:VAL:HG12	3:C:855:LEU:HD11	1.87	0.56
1:M:739:GLY:O	1:M:742:LYS:NZ	2.31	0.56
1:A:1339:PHE:HB3	1:A:1342:ARG:HB2	1.88	0.56
1:A:1457:ASN:HA	1:A:1487:TYR:OH	2.05	0.56
1:A:1471:PHE:HB3	1:A:1480:LEU:HD12	1.85	0.56
1:A:1568:ALA:HA	1:A:1571:PHE:HB3	1.85	0.56
1:H:756:PRO:HA	1:H:759:VAL:HG22	1.86	0.56
1:H:763:LEU:HD13	1:H:774:LEU:HB3	1.86	0.56
1:E:73:MET:HA	1:E:80:ILE:HA	1.87	0.56
1:E:490:GLN:HA	1:E:517:LEU:HD21	1.86	0.56
1:E:589:LEU:HA	1:E:596:ALA:HB2	1.88	0.56
1:E:668:ARG:HB3	1:E:698:LEU:HD21	1.88	0.56
3:C:670:MET:O	3:C:674:ASN:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:683:VAL:O	3:C:686:ALA:HB3	2.06	0.56
3:C:724:ASP:CG	3:C:727:VAL:H	2.13	0.56
3:C:768:LEU:HD11	3:C:771:GLN:HG3	1.88	0.56
1:M:568:ASP:HA	1:M:571:LYS:HE3	1.88	0.56
1:B:936:GLU:OE1	1:B:936:GLU:N	2.28	0.56
1:H:649:GLU:O	1:H:653:ASN:ND2	2.30	0.56
3:C:659:SER:HA	3:C:660:VAL:HB	1.87	0.56
3:C:769:THR:H	3:C:771:GLN:NE2	2.03	0.56
1:M:651:LEU:HD12	1:M:654:TYR:HB2	1.86	0.56
1:M:815:VAL:O	1:M:819:LEU:HG	2.05	0.56
1:M:1037:ARG:HD2	1:M:1039:ARG:HE	1.71	0.56
1:A:1411:TYR:HA	1:A:1415:LYS:H	1.69	0.56
1:A:1518:ASN:HA	1:B:1101:ARG:HH22	1.70	0.56
1:B:1121:VAL:O	1:B:1125:ILE:HG13	2.05	0.56
1:J:1557:PHE:HA	1:J:1560:GLU:OE2	2.06	0.56
1:K:1585:THR:HB	1:K:1588:ARG:HH21	1.70	0.56
1:E:231:ILE:HB	1:E:245:LYS:HD3	1.87	0.56
1:E:259:ASP:HB2	1:E:279:TYR:CD2	2.41	0.56
1:E:368:PHE:HB3	1:E:372:PHE:CE2	2.41	0.56
1:E:487:LYS:HA	1:E:513:ASP:OD2	2.06	0.56
1:E:541:GLU:HA	1:E:574:ARG:HB3	1.87	0.56
3:C:553:PHE:CD2	3:C:562:CYS:HB2	2.40	0.56
1:A:1298:GLU:O	1:A:1301:THR:OG1	2.23	0.56
4:O:130:GLU:O	4:O:134:LYS:HG2	2.05	0.56
1:J:1579:PRO:HD2	1:K:1607:LEU:HD22	1.86	0.56
1:L:1112:ALA:HA	1:L:1115:GLN:HG2	1.88	0.56
4:N:151:LYS:O	4:N:155:ARG:HG2	2.04	0.56
1:E:648:PRO:HB2	1:E:653:ASN:ND2	2.21	0.56
1:E:677:GLN:HG2	1:E:678:ASN:OD1	2.04	0.56
3:C:439:VAL:HG13	3:C:448:LEU:HB2	1.86	0.56
3:C:755:ASP:HB3	3:C:758:ARG:NE	2.20	0.56
3:C:854:ARG:HG3	3:C:856:LYS:NZ	2.20	0.56
1:A:1463:VAL:O	1:A:1466:SER:OG	2.23	0.56
1:B:962:GLU:N	1:B:967:ARG:HH11	2.03	0.56
1:B:1245:ARG:O	1:B:1248:ASN:ND2	2.36	0.56
1:L:1431:ASP:OD2	1:L:1434:ARG:N	2.35	0.56
1:H:821:ASP:OD2	1:H:852:ARG:NH2	2.38	0.56
1:E:371:LEU:CB	1:E:380:ALA:HB2	2.35	0.56
3:C:468:LYS:HE3	3:C:492:PHE:HB2	1.88	0.56
3:C:517:LEU:O	3:C:521:VAL:HG23	2.06	0.56
3:C:688:LYS:HA	3:C:691:GLU:OE2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:712:PHE:O	3:C:731:TYR:HE1	1.88	0.56
3:C:725:PRO:HA	3:C:753:CYS:O	2.06	0.56
3:C:809:PRO:HB2	3:C:837:ARG:HH22	1.69	0.56
1:M:1024:LEU:O	1:M:1028:LEU:N	2.37	0.56
1:M:1042:GLU:HB2	1:M:1046:ARG:NH2	2.21	0.56
1:M:1054:ASP:OD1	1:M:1054:ASP:N	2.38	0.56
1:A:1477:TYR:O	1:A:1481:ARG:N	2.33	0.56
1:H:808:ASN:HD22	1:H:811:ARG:CZ	2.19	0.56
1:E:538:GLN:NE2	1:E:568:ASP:HB3	2.20	0.56
3:C:514:TRP:HE1	3:C:549:ILE:CD1	2.18	0.56
3:C:783:PHE:CD1	3:C:783:PHE:N	2.74	0.56
1:M:864:ALA:O	1:M:867:HIS:HB3	2.06	0.56
1:B:1020:GLU:OE1	1:B:1022:ARG:NH1	2.39	0.56
4:O:107:ARG:HB3	4:O:111:ARG:HH21	1.71	0.56
1:J:1557:PHE:CZ	1:J:1565:CYS:HB2	2.40	0.56
1:K:1586:ALA:HA	1:K:1591:ILE:HG23	1.86	0.56
1:L:1201:VAL:HA	1:L:1204:ARG:HD3	1.88	0.56
1:L:1357:LEU:O	1:L:1361:LEU:HG	2.05	0.56
1:E:33:GLU:HB2	1:E:37:PHE:HZ	1.70	0.56
1:E:257:GLN:O	1:E:279:TYR:OH	2.13	0.56
3:C:622:LEU:H	3:C:626:ALA:HB2	1.71	0.56
1:M:650:TRP:CD1	1:M:654:TYR:HH	2.24	0.56
1:A:1251:ARG:NE	1:A:1255:GLU:OE2	2.38	0.56
1:B:1223:ASN:H	1:B:1227:LEU:HD23	1.71	0.56
4:O:106:TRP:O	4:O:110:GLN:HG3	2.06	0.56
1:H:637:LYS:HG3	1:H:638:ARG:HH11	1.69	0.56
1:E:206:MET:HE1	1:E:213:SER:HB3	1.88	0.55
3:C:702:PHE:CE2	3:C:707:SER:HA	2.41	0.55
3:C:772:LEU:N	3:C:773:PRO:HD3	2.21	0.55
1:B:866:ILE:HG13	1:B:867:HIS:N	2.21	0.55
1:J:1575:ASP:HB3	4:I:210:LYS:HB3	1.87	0.55
1:L:947:LEU:HD21	1:L:955:LEU:HB3	1.88	0.55
1:L:1054:ASP:N	1:L:1054:ASP:OD1	2.35	0.55
1:H:675:ILE:HB	1:H:677:GLN:HG3	1.88	0.55
1:E:338:ILE:O	1:E:344:ASN:N	2.36	0.55
1:E:614:ALA:HB3	1:E:638:ARG:NH1	2.19	0.55
3:C:566:LEU:CB	3:C:580:LEU:HD21	2.29	0.55
3:C:608:TYR:CE2	3:C:613:ILE:HG22	2.41	0.55
3:C:610:ARG:CG	3:C:632:ASP:HB3	2.36	0.55
1:M:599:ILE:HG22	1:M:604:MET:HB2	1.87	0.55
1:M:681:ILE:HD12	1:M:684:GLN:HB2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:N:161:PHE:O	4:N:164:GLN:NE2	2.35	0.55
1:E:543:LEU:HD12	1:E:546:ILE:HG12	1.88	0.55
3:C:440:LEU:HA	3:C:445:LYS:HA	1.89	0.55
3:C:729:PHE:HB2	3:C:758:ARG:NH2	2.21	0.55
3:C:760:LYS:HD2	3:C:783:PHE:CD2	2.40	0.55
1:B:820:LEU:HD22	1:B:848:GLU:HG3	1.86	0.55
1:L:1044:ILE:HG21	1:L:1071:ILE:HD11	1.88	0.55
1:E:398:ILE:HD12	1:E:434:GLU:OE1	2.07	0.55
1:E:637:LYS:HA	1:E:640:VAL:HG22	1.88	0.55
3:C:395:PRO:HA	3:C:398:ILE:HG22	1.88	0.55
3:C:474:LEU:O	3:C:477:SER:OG	2.11	0.55
3:C:695:THR:O	3:C:698:LEU:HB3	2.05	0.55
3:C:712:PHE:O	3:C:731:TYR:CE1	2.59	0.55
1:M:1042:GLU:HA	1:M:1045:ASN:ND2	2.19	0.55
1:A:1585:THR:O	1:A:1589:HIS:ND1	2.33	0.55
1:A:1586:ALA:O	1:A:1590:ASN:N	2.39	0.55
1:B:874:ALA:HA	1:B:877:ASN:HB3	1.86	0.55
1:B:979:LEU:HD21	1:B:1011:ILE:HG13	1.87	0.55
1:B:1214:ALA:HA	1:B:1217:LEU:HD12	1.89	0.55
4:O:124:THR:O	4:O:127:GLU:HG2	2.06	0.55
1:H:777:VAL:HA	1:H:780:ARG:HB3	1.87	0.55
1:E:83:LYS:CG	1:E:111:TRP:CE2	2.90	0.55
1:E:364:PHE:O	1:E:368:PHE:HD2	1.89	0.55
1:E:479:TYR:HB3	1:E:485:PRO:HD2	1.88	0.55
1:E:518:LEU:HD12	1:E:544:ALA:C	2.31	0.55
3:C:726:ASP:HA	3:C:758:ARG:HH12	1.72	0.55
3:C:804:VAL:HG23	3:C:811:ARG:HG3	1.89	0.55
1:M:761:ASN:O	1:M:765:GLU:HG2	2.06	0.55
1:A:1372:ASP:OD1	1:A:1372:ASP:N	2.38	0.55
1:A:1605:GLU:O	1:A:1608:THR:OG1	2.20	0.55
1:B:1005:ILE:O	1:B:1008:LEU:N	2.39	0.55
1:E:12:HIS:N	1:E:324:VAL:O	2.27	0.55
1:E:198:ALA:O	1:E:219:ALA:N	2.32	0.55
1:E:200:SER:N	1:E:217:CYS:O	2.34	0.55
1:E:335:ILE:HG23	1:E:348:ALA:HB1	1.88	0.55
1:E:350:ARG:HB3	1:E:354:ARG:CZ	2.36	0.55
3:C:783:PHE:N	3:C:783:PHE:HD1	2.03	0.55
1:M:752:ASN:HA	1:M:754:TYR:CE1	2.41	0.55
1:M:844:GLU:N	1:M:844:GLU:OE1	2.39	0.55
1:L:947:LEU:HB3	1:L:956:TRP:CE2	2.42	0.55
1:L:1106:ALA:O	1:L:1109:SER:OG	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:N:192:TRP:HB3	4:N:224:GLN:HA	1.87	0.55
1:E:368:PHE:CG	1:E:392:LEU:HG	2.41	0.55
1:E:508:VAL:HG22	1:E:514:TRP:HE1	1.72	0.55
2:F:832:MET:HE3	2:F:898:TRP:CD2	2.42	0.55
3:C:635:ASP:CG	3:C:638:ARG:HD3	2.31	0.55
3:C:802:ILE:O	3:C:805:GLN:HB3	2.05	0.55
1:M:655:PHE:HD1	1:M:658:LEU:HD23	1.71	0.55
1:M:658:LEU:HD13	1:M:688:LYS:HG2	1.88	0.55
1:B:1244:ALA:HA	1:B:1247:ALA:HB3	1.89	0.55
1:L:1205:CYS:HB2	1:L:1214:ALA:HB2	1.88	0.55
1:L:1228:ALA:HA	1:L:1231:LEU:HD12	1.88	0.55
1:L:1299:LEU:O	1:L:1303:LEU:HG	2.07	0.55
1:L:1330:GLN:CD	1:L:1330:GLN:H	2.15	0.55
1:L:1439:PHE:O	1:L:1443:LYS:N	2.39	0.55
1:H:689:TYR:O	1:H:693:LEU:N	2.25	0.55
1:E:697:SER:O	1:E:701:LEU:HG	2.07	0.55
3:C:465:ASP:OD2	3:C:488:VAL:HB	2.06	0.55
1:M:702:PHE:HB2	1:M:711:LEU:HD13	1.88	0.55
1:B:819:LEU:O	1:B:822:VAL:HG12	2.06	0.55
1:B:902:SER:OG	1:B:923:ARG:NH1	2.40	0.55
1:B:1198:ILE:HG21	1:B:1221:VAL:HG11	1.87	0.55
1:L:1084:VAL:O	1:L:1088:HIS:CB	2.46	0.55
1:L:1156:TYR:HD1	1:L:1159:MET:HE3	1.70	0.55
1:L:1245:ARG:C	1:L:1248:ASN:HD21	2.15	0.55
1:E:490:GLN:NE2	1:E:509:GLY:O	2.39	0.55
1:E:494:GLU:CD	1:E:520:ASN:HB3	2.31	0.55
1:E:528:GLN:HB3	1:E:561:GLN:HA	1.88	0.55
2:F:746:ALA:CA	1:M:721:PHE:HA	2.29	0.55
3:C:775:ILE:HG13	3:C:776:ILE:HG13	1.87	0.55
1:A:1332:MET:O	1:A:1336:LEU:HG	2.07	0.55
1:B:859:LEU:HA	1:B:862:LEU:HD12	1.87	0.55
1:B:1106:ALA:O	1:B:1109:SER:OG	2.17	0.55
4:D:112:LYS:HA	4:D:115:GLN:HG2	1.88	0.55
1:K:1475:GLU:HA	1:K:1502:HIS:HE1	1.71	0.55
1:L:1077:VAL:O	1:L:1080:SER:OG	2.21	0.55
1:L:1251:ARG:HE	1:L:1254:LYS:HZ1	1.54	0.55
3:C:397:THR:HG22	3:C:400:ARG:NH2	2.21	0.55
1:M:795:ASN:OD1	1:M:796:LEU:N	2.40	0.55
1:M:949:ARG:HA	1:M:949:ARG:NH1	2.22	0.55
1:B:970:LEU:O	1:B:974:VAL:HG13	2.07	0.55
1:B:1160:ALA:HA	1:B:1163:LYS:HD2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1514:LEU:O	1:K:1518:ASN:N	2.40	0.55
1:E:375:GLY:HA2	1:E:377:TYR:CE2	2.42	0.54
1:E:395:PRO:HB2	1:E:399:ARG:HE	1.72	0.54
1:E:468:LYS:HD2	1:E:479:TYR:OH	2.05	0.54
1:E:579:PRO:O	1:E:583:ARG:HG3	2.08	0.54
1:E:670:MET:SD	1:E:670:MET:N	2.80	0.54
3:C:502:VAL:HB	3:C:536:LEU:N	2.23	0.54
3:C:642:HIS:HA	3:C:645:LEU:HD12	1.89	0.54
1:M:567:LEU:HA	1:M:570:LEU:HD12	1.89	0.54
1:M:645:LEU:HD11	1:H:742:LYS:HG3	1.87	0.54
1:M:915:HIS:CD2	1:M:915:HIS:H	2.24	0.54
1:M:1007:LEU:HA	1:M:1010:LYS:HZ2	1.72	0.54
1:A:1313:HIS:CE1	1:A:1316:MET:HE2	2.42	0.54
1:B:878:ALA:HA	1:B:881:LYS:HE3	1.87	0.54
1:B:1126:ASP:HA	1:B:1129:ILE:HD12	1.90	0.54
1:B:1249:SER:HB2	1:B:1251:ARG:HD3	1.90	0.54
1:K:1446:PRO:HG2	4:N:139:TRP:HZ2	1.71	0.54
1:L:1003:GLU:N	1:L:1006:GLU:OE1	2.32	0.54
1:L:1175:PHE:HD1	1:L:1201:VAL:HG13	1.72	0.54
1:E:157:ARG:O	1:E:166:LEU:N	2.38	0.54
3:C:393:ARG:HG3	3:C:417:TYR:OH	2.07	0.54
3:C:848:GLU:OE2	3:C:852:ARG:NH1	2.40	0.54
1:A:1267:ARG:HA	1:A:1270:GLN:CD	2.33	0.54
1:A:1451:TYR:O	1:A:1455:VAL:HG22	2.07	0.54
1:A:1607:LEU:HA	1:A:1610:VAL:HG12	1.90	0.54
1:B:971:ILE:HA	1:B:974:VAL:HG22	1.88	0.54
1:E:657:SER:HB2	1:E:685:VAL:HG21	1.89	0.54
3:C:680:GLN:NE2	3:C:681:ILE:HG12	2.22	0.54
1:M:794:ASN:OD1	1:M:795:ASN:N	2.40	0.54
1:M:865:ARG:HG2	1:M:870:CYS:SG	2.48	0.54
1:A:1526:GLU:HA	1:A:1529:LYS:HD3	1.89	0.54
4:D:192:TRP:HA	4:D:195:VAL:HG12	1.90	0.54
1:L:971:ILE:HA	1:L:974:VAL:HG22	1.88	0.54
1:L:1388:GLU:HG2	1:L:1389:GLY:N	2.22	0.54
1:E:91:PHE:HA	1:E:99:MET:H	1.72	0.54
1:E:519:ARG:HE	1:E:548:GLN:HG2	1.73	0.54
3:C:505:ALA:HB3	3:C:536:LEU:CD1	2.29	0.54
3:C:762:PHE:HA	3:C:765:GLU:CG	2.37	0.54
4:D:189:GLY:O	4:D:193:GLU:N	2.30	0.54
1:K:1547:THR:HG23	1:K:1548:GLU:HG3	1.90	0.54
1:H:852:ARG:HB3	1:H:854:ARG:HH11	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:449:GLU:HB3	3:C:453:LYS:NZ	2.22	0.54
3:C:490:GLN:OE1	3:C:513:ASP:HB2	2.08	0.54
3:C:573:ASN:HA	3:C:607:HIS:HE1	1.72	0.54
3:C:746:ARG:O	3:C:749:ARG:HG2	2.07	0.54
3:C:849:VAL:HG21	3:C:855:LEU:HA	1.89	0.54
1:M:821:ASP:HB2	1:M:852:ARG:NH2	2.21	0.54
1:M:881:LYS:NZ	1:M:908:TYR:OH	2.40	0.54
1:A:1350:ARG:O	1:A:1354:GLN:HG2	2.07	0.54
1:A:1419:LEU:O	1:A:1423:LEU:HG	2.07	0.54
1:B:891:GLU:HG2	1:B:895:ARG:NH1	2.22	0.54
1:B:1224:PHE:HA	1:B:1227:LEU:HG	1.90	0.54
4:D:192:TRP:CG	4:D:222:LEU:HB2	2.42	0.54
4:O:125:GLU:HG3	4:O:129:ARG:HH22	1.73	0.54
1:L:1122:LYS:HA	1:L:1125:ILE:HD12	1.90	0.54
1:H:768:LEU:HD23	1:H:771:GLN:HA	1.90	0.54
1:E:35:ASP:OD1	1:E:35:ASP:N	2.40	0.54
1:E:288:GLU:OE1	1:E:354:ARG:NH1	2.40	0.54
1:E:463:LEU:O	1:E:467:VAL:HG23	2.08	0.54
1:E:463:LEU:HB2	1:E:478:VAL:HG11	1.88	0.54
1:E:519:ARG:HB3	1:E:523:ARG:NH1	2.22	0.54
1:E:711:LEU:O	1:E:715:LEU:HG	2.06	0.54
3:C:582:THR:HA	3:C:608:TYR:CE2	2.42	0.54
3:C:685:VAL:HG12	3:C:688:LYS:HD3	1.90	0.54
1:M:689:TYR:CZ	1:M:693:LEU:HB2	2.42	0.54
4:D:128:TRP:HD1	4:D:131:LYS:HZ2	1.56	0.54
1:K:1381:HIS:HB2	1:K:1385:ALA:HB3	1.88	0.54
1:L:1344:ASN:ND2	1:L:1346:PRO:HD2	2.22	0.54
1:L:1375:ILE:HA	1:L:1391:PHE:HZ	1.73	0.54
1:E:448:LEU:HA	1:E:451:TRP:CD1	2.43	0.54
1:E:465:ASP:OD1	1:E:488:VAL:HG11	2.08	0.54
3:C:388:PRO:O	3:C:389:LYS:HG3	2.08	0.54
3:C:464:GLY:O	3:C:467:VAL:HG23	2.08	0.54
3:C:679:LEU:O	3:C:683:VAL:HG23	2.07	0.54
3:C:791:LEU:HD23	3:C:796:LEU:HG	1.90	0.54
1:M:888:ASN:ND2	1:M:889:ASN:H	2.04	0.54
1:M:962:GLU:OE2	1:M:967:ARG:NH2	2.41	0.54
1:A:1296:PHE:O	1:A:1300:ILE:HG23	2.08	0.54
4:O:113:ARG:HE	4:O:117:LEU:HG	1.73	0.54
1:K:1504:LEU:HD21	4:N:154:ASN:HB3	1.88	0.54
1:L:1155:LYS:HA	1:L:1158:GLN:HB3	1.88	0.54
1:E:80:ILE:N	1:E:91:PHE:O	2.29	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:371:LEU:O	1:E:376:ASN:N	2.38	0.54
2:F:891:LEU:HD13	2:F:899:ILE:HB	1.90	0.54
3:C:445:LYS:HG2	3:C:449:GLU:OE1	2.07	0.54
3:C:495:THR:HA	3:C:532:PHE:CZ	2.42	0.54
3:C:706:LYS:C	3:C:706:LYS:HD3	2.33	0.54
1:A:1616:SER:O	1:A:1620:ARG:HG2	2.08	0.54
4:D:122:LYS:O	4:D:125:GLU:HG2	2.07	0.54
4:D:147:VAL:HA	4:D:150:ASN:HD21	1.73	0.54
1:K:1561:GLU:OE2	1:K:1563:ARG:NH2	2.41	0.54
1:L:1030:LEU:O	1:L:1034:LYS:HG2	2.08	0.54
1:E:226:GLY:C	1:E:250:VAL:H	2.16	0.54
3:C:510:TYR:CD2	3:C:513:ASP:N	2.75	0.54
3:C:608:TYR:HD1	3:C:609:ASP:H	1.48	0.54
3:C:637:LYS:O	3:C:641:VAL:HG13	2.08	0.54
1:A:1251:ARG:HA	1:A:1254:LYS:NZ	2.22	0.54
1:B:920:ALA:O	1:B:924:GLY:N	2.40	0.54
1:B:1171:THR:OG1	1:B:1172:GLU:OE2	2.22	0.54
1:L:1267:ARG:HB3	1:L:1271:MET:HE3	1.89	0.54
1:H:724:ASP:HB3	1:H:727:VAL:HG22	1.90	0.54
1:E:386:ASN:C	1:E:393:ARG:HH21	2.16	0.54
1:E:522:MET:HG3	1:E:549:ILE:HG23	1.89	0.54
3:C:545:ASP:CG	3:C:548:GLN:HB2	2.33	0.54
3:C:749:ARG:HG3	3:C:750:GLU:N	2.23	0.54
1:M:871:GLU:HA	1:M:876:HIS:HE2	1.72	0.54
1:M:1010:LYS:O	1:M:1013:LEU:HG	2.08	0.54
1:A:1297:GLU:O	1:A:1300:ILE:HG12	2.07	0.54
1:B:1218:TYR:HA	1:B:1223:ASN:ND2	2.23	0.54
4:D:128:TRP:O	4:D:131:LYS:HG2	2.07	0.54
1:K:1620:ARG:NE	1:K:1620:ARG:HA	2.23	0.54
1:H:675:ILE:HB	1:H:677:GLN:HE21	1.74	0.54
1:E:506:LYS:NZ	1:E:539:ASP:HB3	2.22	0.53
3:C:533:ALA:O	3:C:537:VAL:HG22	2.08	0.53
1:A:1377:THR:HG23	1:A:1381:HIS:CD2	2.44	0.53
1:A:1441:LYS:O	1:A:1443:LYS:NZ	2.42	0.53
1:B:1215:LYS:NZ	1:B:1216:LEU:HG	2.23	0.53
4:D:210:LYS:HD2	4:D:212:VAL:HG12	1.88	0.53
1:L:1333:ARG:NE	1:L:1337:GLU:OE2	2.41	0.53
1:E:309:HIS:O	1:E:313:ALA:N	2.41	0.53
3:C:398:ILE:HD13	3:C:417:TYR:CZ	2.43	0.53
3:C:457:LEU:HD22	3:C:463:LEU:HD13	1.90	0.53
3:C:735:ALA:O	3:C:739:GLY:HA2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:872:GLU:O	1:B:875:THR:OG1	2.16	0.53
1:K:1442:VAL:HG13	1:K:1444:GLN:H	1.72	0.53
1:K:1449:LYS:O	1:K:1453:ARG:HG2	2.08	0.53
2:F:748:GLN:HG3	1:M:720:ASN:ND2	1.95	0.53
3:C:473:THR:OG1	3:C:496:GLY:HA3	2.07	0.53
3:C:486:ASN:O	3:C:510:TYR:OH	2.24	0.53
3:C:760:LYS:HE2	3:C:783:PHE:CG	2.43	0.53
3:C:791:LEU:HD12	3:C:794:ASN:HD21	1.74	0.53
1:M:728:HIS:O	1:M:732:ILE:HG12	2.07	0.53
1:A:1283:LEU:O	1:A:1287:ILE:HG12	2.08	0.53
1:A:1378:MET:HE2	1:A:1386:TRP:CD1	2.44	0.53
1:B:1168:TYR:O	1:B:1172:GLU:HG2	2.08	0.53
4:D:151:LYS:O	4:D:155:ARG:HG2	2.08	0.53
1:L:927:ASP:CG	1:L:928:LEU:H	2.16	0.53
1:L:1419:LEU:O	1:L:1422:LEU:HG	2.07	0.53
4:I:200:ASP:OD1	4:I:200:ASP:N	2.39	0.53
1:E:41:ARG:HH12	1:E:43:LYS:HG3	1.74	0.53
1:E:131:SER:O	1:E:136:SER:OG	2.25	0.53
1:E:439:VAL:HB	1:E:448:LEU:HD21	1.89	0.53
1:E:493:ALA:HB3	1:E:521:VAL:HG22	1.90	0.53
1:E:654:TYR:O	1:E:657:SER:OG	2.24	0.53
1:E:682:CYS:O	1:E:686:ALA:HB2	2.07	0.53
3:C:546:ILE:HB	3:C:583:ARG:NH1	2.24	0.53
3:C:700:GLU:HA	3:C:700:GLU:OE1	2.09	0.53
1:M:722:SER:O	1:M:728:HIS:NE2	2.42	0.53
1:A:1261:VAL:HG21	1:A:1286:LEU:HD11	1.90	0.53
1:A:1301:THR:HA	1:A:1304:GLU:HG2	1.89	0.53
1:A:1438:TYR:HD1	1:A:1441:LYS:HZ3	1.57	0.53
1:B:1198:ILE:HA	1:B:1202:GLY:H	1.74	0.53
1:B:1198:ILE:HD13	1:B:1221:VAL:HB	1.89	0.53
1:B:1216:LEU:H	1:B:1216:LEU:HD12	1.73	0.53
1:L:1065:PHE:HA	1:L:1068:ALA:HB3	1.90	0.53
1:L:1096:TYR:O	1:L:1100:GLU:HB3	2.09	0.53
1:L:1117:GLN:OE1	1:L:1118:LYS:NZ	2.40	0.53
1:E:651:LEU:HB3	1:E:655:PHE:CE2	2.44	0.53
3:C:755:ASP:HB3	3:C:758:ARG:CD	2.37	0.53
3:C:794:ASN:CG	3:C:795:ASN:H	2.15	0.53
1:M:1069:PHE:HA	1:M:1072:PHE:CD2	2.43	0.53
1:A:1250:THR:HA	1:A:1253:TRP:HD1	1.73	0.53
1:A:1413:GLU:OE2	4:D:129:ARG:NE	2.38	0.53
4:O:126:GLN:NE2	4:O:126:GLN:O	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1505:ILE:N	1:J:1508:ARG:HH21	2.07	0.53
1:L:964:ASN:H	1:L:967:ARG:HH21	1.56	0.53
1:L:1228:ALA:O	1:L:1232:VAL:HG23	2.09	0.53
1:L:1251:ARG:O	1:L:1255:GLU:HG2	2.08	0.53
1:L:1350:ARG:O	1:L:1354:GLN:NE2	2.32	0.53
1:L:1375:ILE:HA	1:L:1391:PHE:CZ	2.44	0.53
1:E:531:GLN:H	1:E:534:GLN:HB2	1.74	0.53
1:E:586:GLU:HG3	1:E:616:LEU:HD13	1.91	0.53
1:E:615:GLN:HG3	1:E:638:ARG:NH1	2.23	0.53
3:C:709:GLU:O	3:C:713:TYR:CD2	2.62	0.53
1:M:559:ILE:O	1:M:563:THR:OG1	2.21	0.53
1:M:658:LEU:HB2	1:M:688:LYS:NZ	2.22	0.53
1:K:1370:GLU:O	1:K:1374:ALA:N	2.38	0.53
1:K:1437:ASN:O	1:K:1441:LYS:HG2	2.08	0.53
1:L:968:ARG:NH2	1:L:972:ASP:OD1	2.42	0.53
1:L:1242:ASP:HA	1:L:1245:ARG:HH21	1.72	0.53
4:N:218:VAL:HG22	4:N:223:LYS:H	1.73	0.53
1:E:72:ILE:O	1:E:113:TRP:NE1	2.37	0.53
3:C:589:LEU:HD12	3:C:590:MET:HG3	1.91	0.53
3:C:759:VAL:O	3:C:763:LEU:HG	2.09	0.53
1:M:689:TYR:CE2	1:M:698:LEU:HD21	2.43	0.53
1:M:891:GLU:O	1:M:895:ARG:HG3	2.09	0.53
1:A:1439:PHE:O	1:A:1443:LYS:N	2.40	0.53
1:B:1050:TYR:HE2	1:B:1055:ILE:HG21	1.74	0.53
1:K:1617:GLU:O	1:K:1621:LYS:HG2	2.09	0.53
1:L:970:LEU:O	1:L:974:VAL:HG13	2.09	0.53
1:L:1026:ASN:O	1:L:1030:LEU:CB	2.56	0.53
1:L:1227:LEU:O	1:L:1231:LEU:HG	2.08	0.53
1:L:1382:PRO:HG3	1:L:1410:PHE:HZ	1.74	0.53
1:E:181:MET:O	1:E:194:ILE:N	2.31	0.53
1:E:402:GLN:HA	1:E:414:LEU:HD21	1.91	0.53
1:E:556:TYR:HB2	1:E:558:LEU:HG	1.91	0.53
1:E:597:ASP:O	1:E:600:LEU:HB2	2.09	0.53
3:C:452:LEU:HD21	3:C:467:VAL:HG11	1.91	0.53
3:C:540:GLU:HG2	3:C:569:ALA:C	2.34	0.53
3:C:701:LEU:HA	3:C:704:SER:OG	2.08	0.53
3:C:797:GLN:HB3	3:C:799:TYR:CE2	2.43	0.53
1:B:841:SER:OG	1:B:842:THR:N	2.40	0.53
1:B:1248:ASN:HD22	1:B:1275:HIS:CE1	2.27	0.53
1:H:762:PHE:O	1:H:766:ALA:N	2.30	0.53
1:E:72:ILE:HD12	1:E:113:TRP:CD1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:479:TYR:O	1:E:484:VAL:N	2.33	0.53
3:C:514:TRP:NE1	3:C:549:ILE:HG12	2.22	0.53
3:C:729:PHE:CD2	3:C:730:LYS:HD3	2.44	0.53
3:C:804:VAL:HG23	3:C:811:ARG:CG	2.39	0.53
1:A:1363:PHE:HA	1:A:1366:ASP:OD1	2.09	0.53
1:B:1054:ASP:O	1:B:1058:ILE:HG12	2.09	0.53
1:B:1198:ILE:C	1:B:1200:GLN:H	2.17	0.53
4:D:207:LYS:HE2	4:D:211:ASP:HA	1.91	0.53
1:K:1499:LEU:HB3	1:K:1507:PHE:O	2.09	0.53
1:K:1619:LEU:HB2	1:K:1620:ARG:NH1	2.24	0.53
1:H:647:ASN:O	1:H:651:LEU:HD23	2.08	0.53
1:E:370:ALA:O	1:E:374:GLN:N	2.32	0.53
3:C:420:ILE:O	3:C:424:GLN:HB3	2.09	0.53
3:C:546:ILE:HA	3:C:549:ILE:HD12	1.90	0.53
1:M:797:GLN:OE1	1:M:797:GLN:N	2.42	0.53
1:B:1005:ILE:HA	1:B:1008:LEU:HD23	1.91	0.53
1:K:1412:LEU:HD23	1:K:1416:PRO:HB3	1.91	0.53
1:L:961:LEU:HD23	1:L:961:LEU:H	1.74	0.53
1:H:812:LEU:O	1:H:816:ILE:HG12	2.09	0.53
1:E:81:ALA:HA	1:E:90:ILE:HA	1.89	0.52
1:E:451:TRP:CE3	1:E:456:LYS:HD2	2.44	0.52
3:C:495:THR:HG23	3:C:524:ILE:HD11	1.91	0.52
3:C:822:VAL:HG23	3:C:824:CYS:SG	2.50	0.52
1:M:570:LEU:O	1:M:576:SER:OG	2.27	0.52
1:M:651:LEU:HA	1:M:654:TYR:CD2	2.44	0.52
1:M:1059:ALA:HB1	1:M:1064:LEU:HB2	1.90	0.52
1:A:1493:ILE:HG13	1:A:1494:SER:N	2.24	0.52
1:A:1593:ASP:N	1:A:1593:ASP:OD1	2.40	0.52
1:B:890:PRO:HG2	1:B:894:LEU:HD23	1.91	0.52
1:B:891:GLU:OE1	1:B:891:GLU:N	2.42	0.52
1:L:1360:GLU:O	1:L:1364:LEU:HG	2.09	0.52
1:L:1411:TYR:HD2	1:L:1415:LYS:HB2	1.74	0.52
1:H:706:LYS:HZ3	1:H:737:LYS:HD2	1.73	0.52
1:E:338:ILE:HG22	1:E:344:ASN:HB2	1.90	0.52
1:E:416:GLN:O	1:E:420:ILE:HG13	2.09	0.52
1:E:518:LEU:HB3	1:E:549:ILE:HG13	1.91	0.52
1:E:585:LEU:HD22	1:E:599:ILE:HG21	1.90	0.52
3:C:476:LEU:HB3	3:C:500:LYS:HE3	1.90	0.52
1:M:961:LEU:HD23	1:M:961:LEU:H	1.75	0.52
1:A:1521:TRP:O	1:A:1523:GLN:N	2.42	0.52
1:A:1566:PHE:HA	1:A:1569:CYS:SG	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1159:MET:HE3	1:B:1163:LYS:HG3	1.91	0.52
1:J:1597:PRO:C	4:I:214:ARG:HH21	2.17	0.52
1:H:827:ASP:O	1:H:831:ASN:ND2	2.43	0.52
1:E:84:ALA:N	1:E:87:THR:O	2.37	0.52
1:E:627:LEU:O	1:E:631:THR:HG23	2.09	0.52
3:C:812:LEU:HB2	3:C:837:ARG:HH11	1.75	0.52
1:M:1025:GLN:NE2	1:M:1048:ASP:O	2.40	0.52
1:A:1450:PRO:HA	1:A:1453:ARG:HH21	1.74	0.52
1:B:1097:GLU:OE1	1:B:1097:GLU:N	2.29	0.52
4:D:107:ARG:HA	4:D:110:GLN:OE1	2.10	0.52
1:K:1475:GLU:HA	1:K:1502:HIS:CE1	2.44	0.52
1:L:1207:ASP:O	1:L:1209:LYS:NZ	2.35	0.52
1:L:1323:LEU:HA	1:L:1326:LYS:HB2	1.92	0.52
1:L:1409:GLN:HG2	1:L:1412:LEU:HD23	1.91	0.52
1:L:1469:ASN:HA	1:L:1472:ILE:HD12	1.92	0.52
1:H:809:PRO:HG2	1:H:839:GLN:HG2	1.91	0.52
1:E:267:SER:HB3	1:E:274:PHE:CE2	2.44	0.52
1:E:302:THR:HB	1:E:304:PHE:CE1	2.44	0.52
1:E:554:MET:HG3	1:E:587:MET:HE3	1.92	0.52
3:C:833:ILE:HG21	3:C:858:LEU:HD21	1.90	0.52
1:A:1250:THR:HA	1:A:1253:TRP:CD1	2.44	0.52
1:K:1620:ARG:HH21	1:K:1623:GLU:HG2	1.75	0.52
4:I:202:ASN:H	4:I:204:LYS:NZ	2.07	0.52
1:E:398:ILE:HA	1:E:401:PHE:CD2	2.45	0.52
1:E:428:ASN:N	1:E:431:GLU:OE1	2.39	0.52
1:E:438:PRO:O	1:E:442:GLN:N	2.33	0.52
1:E:578:GLY:O	1:E:582:THR:HG23	2.10	0.52
3:C:483:ASN:C	3:C:485:PRO:HD3	2.35	0.52
3:C:554:MET:C	3:C:557:ASN:H	2.17	0.52
3:C:576:SER:HG	3:C:607:HIS:CG	2.21	0.52
3:C:765:GLU:HA	3:C:767:LYS:NZ	2.25	0.52
1:A:1445:LEU:HA	1:A:1448:VAL:HG22	1.90	0.52
1:A:1494:SER:O	1:A:1498:ARG:HG3	2.08	0.52
1:B:813:PRO:HA	1:B:839:GLN:HG3	1.91	0.52
1:J:1576:LEU:O	1:J:1578:ARG:NH1	2.42	0.52
4:I:146:GLN:O	4:I:150:ASN:ND2	2.42	0.52
1:E:124:ASP:O	1:E:144:ARG:NE	2.41	0.52
1:E:508:VAL:HA	1:E:509:GLY:C	2.34	0.52
1:M:637:LYS:HE3	1:M:638:ARG:HH21	1.74	0.52
1:A:1515:PHE:HD1	1:A:1520:ARG:HB3	1.75	0.52
1:B:826:GLU:N	1:B:826:GLU:OE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1228:ALA:O	1:B:1232:VAL:HG23	2.10	0.52
1:K:1578:ARG:NH1	1:K:1580:ASP:OD2	2.42	0.52
1:K:1598:TYR:O	1:K:1602:VAL:HG23	2.09	0.52
1:L:1000:LEU:HB3	1:L:1004:LEU:HD22	1.91	0.52
1:L:1186:LEU:O	1:L:1190:ILE:HG12	2.10	0.52
1:L:1198:ILE:HD12	1:L:1198:ILE:H	1.75	0.52
1:L:1204:ARG:HA	1:L:1207:ASP:HB2	1.90	0.52
1:E:266:ILE:HG21	1:E:287:LEU:HD13	1.91	0.52
3:C:479:TYR:O	3:C:484:VAL:HA	2.09	0.52
3:C:819:LEU:HA	3:C:822:VAL:HG22	1.92	0.52
1:M:597:ASP:HB2	1:M:625:ARG:NH2	2.22	0.52
1:M:756:PRO:HA	1:M:759:VAL:HB	1.92	0.52
1:M:759:VAL:O	1:M:763:LEU:HG	2.10	0.52
1:M:859:LEU:HD12	1:M:860:PRO:HD3	1.92	0.52
1:M:1006:GLU:OE1	1:M:1006:GLU:N	2.43	0.52
1:M:1042:GLU:C	1:M:1046:ARG:HE	2.17	0.52
1:A:1253:TRP:HA	1:A:1256:VAL:HG12	1.91	0.52
1:A:1608:THR:O	1:A:1612:LYS:HG2	2.09	0.52
1:A:1617:GLU:O	1:A:1621:LYS:HG2	2.09	0.52
1:B:809:PRO:O	1:B:812:LEU:HD12	2.10	0.52
1:B:990:VAL:HA	1:B:993:LYS:HD2	1.90	0.52
4:D:128:TRP:CD1	4:D:131:LYS:HZ2	2.27	0.52
1:J:1621:LYS:HA	1:J:1624:GLU:HG3	1.91	0.52
1:L:968:ARG:HD2	1:L:971:ILE:HD11	1.92	0.52
1:E:92:ASN:ND2	1:E:95:MET:H	2.08	0.52
1:E:642:HIS:O	1:E:646:LEU:N	2.34	0.52
3:C:568:ASP:HA	3:C:571:LYS:HD2	1.92	0.52
3:C:650:TRP:NE1	3:C:654:TYR:OH	2.42	0.52
3:C:743:GLU:HA	3:C:746:ARG:NH1	2.25	0.52
3:C:833:ILE:HD13	3:C:858:LEU:HD21	1.90	0.52
1:M:611:ALA:HA	1:M:633:LEU:HD11	1.90	0.52
1:M:719:VAL:HA	1:M:722:SER:HB2	1.91	0.52
1:M:989:SER:O	1:M:993:LYS:HG2	2.10	0.52
1:A:1281:ASP:N	1:A:1281:ASP:OD1	2.43	0.52
1:A:1541:ALA:O	1:A:1544:SER:OG	2.18	0.52
1:K:1404:TYR:OH	1:K:1429:ARG:NH2	2.27	0.52
1:E:121:LEU:O	1:E:128:TYR:N	2.29	0.52
1:E:156:TYR:HE1	1:E:165:LEU:HB3	1.73	0.52
1:E:166:LEU:HD12	1:E:182:GLN:C	2.35	0.52
1:E:541:GLU:HB3	1:E:542:PRO:HD2	1.92	0.52
3:C:519:ARG:O	3:C:523:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:546:ILE:HG21	3:C:580:LEU:CD1	2.40	0.52
3:C:637:LYS:HB3	3:C:638:ARG:NH1	2.24	0.52
3:C:752:ASN:CG	3:C:780:ARG:HH21	2.14	0.52
1:M:724:ASP:O	1:M:727:VAL:HG22	2.10	0.52
1:M:1026:ASN:O	1:M:1030:LEU:HG	2.09	0.52
1:A:1289:TYR:O	1:A:1293:ARG:HD3	2.09	0.52
1:A:1450:PRO:HA	1:A:1453:ARG:HE	1.75	0.52
1:B:1071:ILE:HA	1:B:1074:LYS:HE3	1.91	0.52
4:D:193:GLU:HA	4:D:223:LYS:HD2	1.92	0.52
4:D:212:VAL:HG21	4:D:214:ARG:HE	1.75	0.52
1:L:1322:ILE:HG22	1:L:1323:LEU:HD22	1.92	0.52
1:E:498:VAL:HG22	1:E:532:PHE:HD1	1.74	0.52
1:E:525:SER:N	1:E:526:PRO:HD2	2.25	0.52
3:C:483:ASN:ND2	3:C:485:PRO:HG3	2.25	0.52
3:C:512:PRO:HA	3:C:515:ILE:HG13	1.92	0.52
3:C:673:ALA:O	3:C:675:ILE:HG12	2.10	0.52
3:C:692:GLN:HG3	3:C:693:LEU:CD2	2.40	0.52
1:M:725:PRO:HA	1:M:728:HIS:HD2	1.74	0.52
1:A:1404:TYR:H	1:A:1404:TYR:HD2	1.58	0.52
1:L:946:TYR:O	1:L:950:ARG:N	2.39	0.52
1:H:718:ILE:O	1:H:722:SER:OG	2.26	0.52
1:E:265:GLN:NE2	1:E:266:ILE:O	2.43	0.51
1:E:446:GLN:HA	1:E:449:GLU:CD	2.35	0.51
3:C:760:LYS:C	3:C:764:LYS:HE3	2.34	0.51
3:C:808:ASN:OD1	3:C:808:ASN:N	2.39	0.51
1:M:1042:GLU:OE1	1:M:1046:ARG:NH2	2.43	0.51
1:B:944:SER:O	1:B:948:VAL:HG13	2.10	0.51
4:N:218:VAL:HG23	4:N:222:LEU:HB2	1.91	0.51
1:E:230:ILE:HD13	1:E:287:LEU:O	2.10	0.51
1:E:400:ARG:O	1:E:404:VAL:HG23	2.10	0.51
3:C:497:GLN:HB3	3:C:500:LYS:HZ3	1.75	0.51
3:C:810:SER:HB3	3:C:839:GLN:HE21	1.74	0.51
4:O:103:ILE:HA	4:O:106:TRP:HE1	1.74	0.51
1:K:1451:TYR:O	1:K:1455:VAL:HG22	2.11	0.51
1:H:652:VAL:HA	1:H:655:PHE:CD2	2.45	0.51
1:E:5:LEU:O	1:E:337:TYR:OH	2.21	0.51
1:E:79:VAL:HG21	1:E:132:MET:HE1	1.93	0.51
1:E:581:GLN:HA	1:E:584:LEU:HD12	1.92	0.51
1:E:677:GLN:OE1	1:E:677:GLN:N	2.43	0.51
3:C:444:ARG:HB2	3:C:447:LEU:HB2	1.93	0.51
3:C:546:ILE:O	3:C:549:ILE:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:683:VAL:CG1	3:C:714:PHE:HB2	2.41	0.51
3:C:774:LEU:O	3:C:778:CYS:HB3	2.10	0.51
1:J:1563:ARG:HB3	1:J:1594:PHE:HZ	1.75	0.51
1:L:1084:VAL:HA	1:L:1087:GLU:HG3	1.92	0.51
1:L:1187:GLU:OE1	1:L:1220:ASN:ND2	2.43	0.51
1:L:1408:ILE:HA	1:L:1419:LEU:HD21	1.92	0.51
1:L:1416:PRO:O	1:L:1419:LEU:HB2	2.11	0.51
1:H:680:GLN:HG3	1:H:684:GLN:NE2	2.24	0.51
1:E:92:ASN:HD21	1:E:94:GLU:HB3	1.75	0.51
1:E:675:ILE:HG23	1:E:707:SER:HB3	1.91	0.51
3:C:401:PHE:HZ	3:C:416:GLN:HE21	1.57	0.51
3:C:561:GLN:HB3	3:C:565:PHE:CE2	2.46	0.51
1:M:911:LYS:HZ1	1:M:912:ARG:HG3	1.75	0.51
1:A:1588:ARG:HH22	4:I:220:MET:C	2.18	0.51
1:B:1161:ARG:HB3	1:B:1162:LYS:NZ	2.24	0.51
1:J:1499:LEU:HD23	1:J:1507:PHE:CD2	2.46	0.51
1:J:1593:ASP:N	1:J:1593:ASP:OD1	2.42	0.51
1:H:689:TYR:HD1	1:H:692:GLN:HE21	1.59	0.51
1:E:37:PHE:HE1	1:E:75:PRO:HA	1.75	0.51
1:E:51:VAL:HA	1:E:63:ARG:HA	1.92	0.51
1:E:113:TRP:HZ3	1:E:117:ASN:C	2.18	0.51
3:C:486:ASN:HB3	3:C:510:TYR:CE1	2.44	0.51
3:C:491:CYS:HA	3:C:516:PHE:CG	2.46	0.51
3:C:540:GLU:N	3:C:575:PRO:HB3	2.26	0.51
1:B:892:ARG:HA	1:B:895:ARG:HB3	1.92	0.51
1:B:1174:ILE:HA	1:B:1177:LEU:HD12	1.93	0.51
4:D:129:ARG:HG2	4:D:133:LYS:HE3	1.92	0.51
4:N:143:GLN:O	4:N:147:VAL:HG23	2.09	0.51
1:E:335:ILE:HD12	1:E:358:ALA:O	2.11	0.51
1:E:508:VAL:HG11	1:E:511:THR:HG23	1.93	0.51
3:C:436:CYS:HA	3:C:448:LEU:HD13	1.92	0.51
3:C:761:ASN:HA	3:C:764:LYS:CD	2.33	0.51
3:C:826:GLU:HG2	3:C:827:ASP:OD1	2.11	0.51
3:C:852:ARG:O	3:C:854:ARG:HD2	2.10	0.51
1:M:787:LEU:O	1:M:791:LEU:HG	2.11	0.51
1:A:1304:GLU:HA	1:A:1307:LEU:HG	1.92	0.51
1:A:1376:ILE:O	1:A:1380:ASN:ND2	2.44	0.51
1:A:1400:ASN:OD1	1:A:1400:ASN:N	2.41	0.51
1:A:1477:TYR:HA	1:A:1480:LEU:HB3	1.92	0.51
1:K:1571:PHE:CE1	4:N:212:VAL:HG11	2.45	0.51
1:L:987:GLU:O	1:L:991:THR:HG23	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1229:SER:O	1:L:1233:HIS:ND1	2.43	0.51
1:L:1313:HIS:O	1:L:1316:MET:HG2	2.10	0.51
3:C:401:PHE:CD1	3:C:417:TYR:HB2	2.45	0.51
3:C:536:LEU:HD23	3:C:537:VAL:HG13	1.92	0.51
3:C:624:GLN:HG2	3:C:649:GLU:OE1	2.11	0.51
3:C:634:TYR:O	3:C:636:ILE:HG12	2.10	0.51
1:A:1290:TYR:O	1:A:1295:TYR:N	2.30	0.51
1:A:1408:ILE:HG13	1:A:1409:GLN:N	2.24	0.51
1:A:1436:VAL:HG21	1:A:1462:SER:HB2	1.93	0.51
1:B:985:PRO:HB3	1:B:1018:PHE:HE2	1.76	0.51
4:D:118:ASP:O	4:D:121:SER:OG	2.22	0.51
4:D:125:GLU:HG3	4:D:129:ARG:NH2	2.25	0.51
4:D:202:ASN:HB2	4:D:204:LYS:HG3	1.92	0.51
1:K:1540:TYR:HA	1:K:1543:GLU:HG3	1.92	0.51
1:L:1227:LEU:HD12	1:L:1228:ALA:N	2.26	0.51
1:L:1391:PHE:HA	1:L:1394:ILE:HG12	1.92	0.51
4:N:139:TRP:O	4:N:143:GLN:HG2	2.10	0.51
1:E:163:LYS:HA	1:E:186:VAL:HB	1.93	0.51
1:E:346:ASP:O	1:E:350:ARG:HG3	2.11	0.51
1:E:534:GLN:HG3	1:E:565:PHE:CD1	2.46	0.51
3:C:440:LEU:HB3	3:C:441:GLN:OE1	2.11	0.51
3:C:708:PHE:HD1	3:C:708:PHE:H	1.58	0.51
3:C:808:ASN:HD22	3:C:811:ARG:HH21	1.59	0.51
1:A:1538:MET:O	1:A:1542:SER:OG	2.19	0.51
1:B:847:ALA:HA	1:B:850:GLU:OE1	2.11	0.51
1:B:913:ASP:OD1	1:B:915:HIS:N	2.38	0.51
4:D:220:MET:O	4:D:225:THR:OG1	2.24	0.51
1:L:1401:VAL:HA	1:L:1404:TYR:CE2	2.46	0.51
1:E:583:ARG:HA	1:E:586:GLU:OE1	2.11	0.51
3:C:439:VAL:CG1	3:C:448:LEU:HD13	2.41	0.51
3:C:749:ARG:HA	3:C:780:ARG:NH1	2.16	0.51
3:C:759:VAL:O	3:C:762:PHE:HB3	2.10	0.51
3:C:768:LEU:HD12	3:C:770:ASP:H	1.76	0.51
3:C:831:ASN:O	3:C:835:VAL:HG13	2.10	0.51
1:M:732:ILE:HG23	1:M:741:ILE:HD13	1.93	0.51
1:M:840:PHE:CZ	1:M:845:LEU:HD13	2.46	0.51
1:A:1317:PHE:O	1:A:1320:LEU:HB3	2.10	0.51
1:A:1378:MET:HE3	1:A:1386:TRP:HA	1.92	0.51
1:B:1253:TRP:CE3	1:B:1272:CYS:HB3	2.46	0.51
1:K:1526:GLU:OE1	1:K:1530:LYS:NZ	2.43	0.51
1:L:1025:GLN:OE1	1:L:1025:GLN:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1065:PHE:HB3	1:L:1088:HIS:CE1	2.46	0.51
1:H:803:TYR:OH	1:H:811:ARG:HB2	2.11	0.51
3:C:440:LEU:HB2	3:C:448:LEU:HD22	1.92	0.51
3:C:479:TYR:CD2	3:C:489:ILE:HA	2.46	0.51
3:C:685:VAL:HA	3:C:688:LYS:HB2	1.93	0.51
3:C:803:TYR:CZ	3:C:808:ASN:ND2	2.73	0.51
1:M:757:GLU:O	1:M:760:LYS:HG2	2.12	0.51
1:A:1455:VAL:O	1:A:1458:HIS:ND1	2.44	0.51
1:A:1545:LYS:O	1:A:1545:LYS:HD2	2.10	0.51
1:B:1028:LEU:O	1:B:1031:THR:OG1	2.26	0.51
1:L:1051:ASP:OD1	1:L:1051:ASP:N	2.39	0.51
1:L:1117:GLN:HB2	1:L:1118:LYS:HZ3	1.74	0.51
1:L:1125:ILE:HD13	1:L:1152:GLU:HG3	1.93	0.51
1:L:1297:GLU:OE2	1:L:1298:GLU:HG2	2.10	0.51
1:L:1451:TYR:O	1:L:1454:SER:OG	2.26	0.51
1:H:726:ASP:HA	1:H:758:ARG:HH12	1.76	0.51
4:N:202:ASN:HB2	4:N:204:LYS:HZ2	1.75	0.51
1:E:283:HIS:CE1	1:E:295:MET:HG3	2.46	0.50
1:E:532:PHE:O	1:E:536:LEU:HG	2.11	0.50
1:E:615:GLN:HG3	1:E:638:ARG:CZ	2.41	0.50
3:C:573:ASN:HA	3:C:607:HIS:CE1	2.45	0.50
3:C:689:TYR:HA	3:C:692:GLN:HE21	1.75	0.50
3:C:797:GLN:HB3	3:C:799:TYR:CZ	2.45	0.50
1:M:741:ILE:HG13	1:M:745:GLU:HB3	1.94	0.50
1:M:955:LEU:O	1:M:959:VAL:HG23	2.11	0.50
1:M:995:PHE:HB3	1:M:1005:ILE:HG12	1.93	0.50
1:B:992:VAL:HA	1:B:995:PHE:CD2	2.46	0.50
1:B:1113:LYS:HG3	1:B:1117:GLN:NE2	2.26	0.50
1:B:1128:TYR:O	1:B:1132:ASP:N	2.44	0.50
1:L:1448:VAL:HG22	1:L:1451:TYR:HB3	1.92	0.50
1:H:741:ILE:O	1:H:745:GLU:N	2.35	0.50
1:E:316:ILE:HA	1:E:326:SER:HA	1.94	0.50
1:E:434:GLU:HA	1:E:437:ARG:HD2	1.93	0.50
1:E:598:ALA:O	1:E:602:ASN:ND2	2.44	0.50
1:E:616:LEU:O	1:E:620:ALA:N	2.44	0.50
1:E:617:CYS:HB2	1:E:630:PHE:CZ	2.47	0.50
2:F:747:LEU:HD12	1:M:719:VAL:CB	2.36	0.50
2:F:886:MET:HE1	2:F:904:ARG:CZ	2.40	0.50
3:C:463:LEU:O	3:C:467:VAL:HG22	2.12	0.50
3:C:490:GLN:HB2	3:C:510:TYR:OH	2.10	0.50
3:C:517:LEU:O	3:C:521:VAL:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:604:MET:O	3:C:608:TYR:HB3	2.11	0.50
1:M:828:VAL:HA	1:M:831:ASN:ND2	2.26	0.50
1:M:858:LEU:O	1:M:862:LEU:HD12	2.11	0.50
1:M:935:ASN:OD1	1:M:935:ASN:N	2.42	0.50
1:M:966:TYR:O	1:M:970:LEU:N	2.30	0.50
1:A:1324:TYR:HB3	1:A:1332:MET:HB2	1.93	0.50
1:A:1550:ALA:HA	1:A:1553:LEU:HD12	1.93	0.50
1:B:855:LEU:HB2	1:B:882:ILE:HG22	1.94	0.50
1:B:1010:LYS:HD2	1:B:1013:LEU:HD13	1.93	0.50
1:J:1557:PHE:CZ	1:J:1562:LYS:HB3	2.47	0.50
1:K:1584:GLU:OE2	1:K:1588:ARG:NH1	2.44	0.50
1:L:1058:ILE:O	1:L:1061:SER:OG	2.16	0.50
4:N:158:ASP:HA	4:N:161:PHE:CD2	2.46	0.50
1:E:52:ILE:HG12	1:E:73:MET:SD	2.51	0.50
1:E:206:MET:SD	1:E:243:PHE:HB2	2.51	0.50
1:E:418:PHE:HA	1:E:421:LEU:HD12	1.93	0.50
1:E:612:HIS:HA	1:E:615:GLN:OE1	2.11	0.50
3:C:440:LEU:CD1	3:C:445:LYS:HG3	2.41	0.50
3:C:549:ILE:HG22	3:C:562:CYS:SG	2.51	0.50
3:C:597:ASP:H	3:C:625:ARG:NH2	2.05	0.50
3:C:615:GLN:HA	3:C:618:GLU:OE1	2.11	0.50
3:C:676:ARG:HA	3:C:679:LEU:HG	1.93	0.50
1:M:789:LEU:HD11	1:M:793:ARG:NH2	2.25	0.50
1:A:1478:GLN:OE1	1:A:1478:GLN:N	2.34	0.50
1:B:1136:SER:O	1:B:1140:VAL:HG23	2.10	0.50
4:D:109:GLU:O	4:D:112:LYS:HG3	2.11	0.50
1:L:1442:VAL:HG23	1:L:1444:GLN:HB2	1.94	0.50
1:H:652:VAL:HG13	1:H:688:LYS:HE3	1.93	0.50
1:H:666:CYS:O	1:H:670:MET:HG3	2.12	0.50
1:E:574:ARG:HB2	1:E:575:PRO:HD3	1.93	0.50
3:C:524:ILE:HG23	3:C:526:PRO:O	2.10	0.50
3:C:816:ILE:HG12	3:C:829:ILE:HG21	1.93	0.50
1:M:802:ILE:HA	1:M:805:GLN:HE21	1.75	0.50
1:M:830:LYS:O	1:M:834:LEU:HG	2.11	0.50
1:M:1058:ILE:O	1:M:1062:ASN:N	2.45	0.50
1:A:1596:MET:O	1:A:1600:ILE:HG13	2.11	0.50
1:B:956:TRP:HE3	1:B:960:LEU:HD11	1.77	0.50
4:O:100:PRO:HG2	4:O:102:SER:HB3	1.94	0.50
1:L:1314:MET:SD	1:L:1315:GLY:N	2.84	0.50
1:L:1358:TRP:CD1	1:L:1361:LEU:HD12	2.45	0.50
1:H:774:LEU:O	1:H:778:CYS:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:370:ALA:HB1	1:E:374:GLN:NE2	2.25	0.50
1:E:412:SER:O	1:E:416:GLN:HG3	2.12	0.50
3:C:514:TRP:CH2	3:C:532:PHE:HB2	2.46	0.50
4:D:207:LYS:HE2	4:D:212:VAL:N	2.27	0.50
4:O:103:ILE:HA	4:O:106:TRP:NE1	2.27	0.50
1:K:1567:GLY:O	1:K:1570:LEU:HG	2.11	0.50
1:L:1334:GLU:HA	1:L:1337:GLU:OE1	2.12	0.50
1:H:668:ARG:NH1	1:H:668:ARG:O	2.39	0.50
1:E:218:PHE:HE1	1:E:231:ILE:HG12	1.76	0.50
1:E:338:ILE:HA	1:E:342:LEU:HD12	1.94	0.50
1:E:439:VAL:HG13	1:E:444:ARG:HD2	1.92	0.50
3:C:387:ALA:HB3	3:C:391:ILE:HG22	1.94	0.50
3:C:495:THR:HA	3:C:532:PHE:HZ	1.76	0.50
3:C:538:GLN:C	3:C:569:ALA:HA	2.37	0.50
1:M:860:PRO:HA	1:M:863:GLU:CD	2.37	0.50
1:M:1074:LYS:HG2	1:M:1075:PHE:CD1	2.47	0.50
1:A:1494:SER:OG	1:A:1498:ARG:NH1	2.41	0.50
1:B:1079:THR:OG1	1:B:1080:SER:N	2.45	0.50
4:D:131:LYS:HA	4:D:134:LYS:HG2	1.94	0.50
3:C:661:GLU:O	3:C:664:LEU:HD13	2.12	0.50
3:C:774:LEU:HD12	3:C:778:CYS:HB2	1.94	0.50
1:M:979:LEU:HD23	1:M:1011:ILE:HD11	1.94	0.50
1:A:1497:GLN:HA	1:A:1500:GLU:CD	2.37	0.50
1:A:1521:TRP:C	1:A:1522:LYS:HG2	2.37	0.50
1:B:971:ILE:O	1:B:974:VAL:HG22	2.10	0.50
1:L:1284:GLU:O	1:L:1287:ILE:HB	2.12	0.50
1:E:291:THR:O	1:E:293:ILE:HG13	2.12	0.50
1:E:690:HIS:O	1:E:692:GLN:HG3	2.12	0.50
2:F:747:LEU:N	1:M:720:ASN:HA	2.26	0.50
3:C:554:MET:HA	3:C:559:ILE:CG1	2.39	0.50
3:C:610:ARG:O	3:C:613:ILE:HG12	2.11	0.50
3:C:611:ALA:O	3:C:615:GLN:HG3	2.12	0.50
3:C:622:LEU:O	3:C:625:ARG:N	2.45	0.50
3:C:689:TYR:O	3:C:692:GLN:HG2	2.11	0.50
1:A:1345:ILE:HG13	1:A:1368:TYR:CZ	2.47	0.50
1:A:1358:TRP:O	1:A:1362:VAL:HG23	2.11	0.50
1:A:1431:ASP:OD2	1:A:1434:ARG:HD3	2.11	0.50
1:B:842:THR:O	1:B:846:VAL:HG13	2.11	0.50
1:B:1177:LEU:HB2	1:B:1186:LEU:HD22	1.94	0.50
1:B:1185:GLU:OE1	1:B:1185:GLU:N	2.29	0.50
4:O:133:LYS:HB2	4:O:134:LYS:NZ	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1596:MET:HA	1:K:1599:PHE:CD2	2.47	0.50
1:L:1115:GLN:HB3	1:L:1120:MET:O	2.12	0.50
1:L:1153:LEU:O	1:L:1157:LEU:HG	2.12	0.50
1:L:1236:GLU:OE2	1:L:1239:ALA:N	2.43	0.50
1:L:1430:LEU:HD12	1:L:1431:ASP:N	2.26	0.50
1:E:104:MET:SD	1:E:138:PRO:HG3	2.51	0.50
1:E:648:PRO:HB2	1:E:653:ASN:HD21	1.77	0.50
3:C:662:ASP:HA	3:C:664:LEU:HD13	1.94	0.50
3:C:696:GLN:HA	3:C:699:ILE:HG12	1.93	0.50
1:A:1326:LYS:HG3	1:A:1327:PHE:CD1	2.47	0.50
1:A:1620:ARG:NH1	1:J:1620:ARG:HG3	2.26	0.50
1:B:901:ASP:OD2	1:B:904:VAL:N	2.35	0.50
1:B:954:GLU:OE2	1:B:954:GLU:N	2.34	0.50
1:J:1575:ASP:N	1:J:1575:ASP:OD1	2.43	0.50
1:L:1270:GLN:HE22	1:L:1305:ALA:H	1.60	0.50
1:E:129:HIS:CG	1:E:141:MET:HG3	2.46	0.49
1:E:201:PHE:HD1	1:E:233:VAL:HG21	1.77	0.49
1:E:690:HIS:HB2	1:E:692:GLN:HG2	1.93	0.49
3:C:614:ALA:O	3:C:629:HIS:CD2	2.65	0.49
1:M:623:LEU:O	1:M:627:LEU:HG	2.12	0.49
1:A:1565:CYS:HA	4:D:195:VAL:HG23	1.93	0.49
1:B:1150:TRP:CE2	1:B:1179:LYS:HG2	2.47	0.49
1:B:1154:VAL:HG21	1:B:1182:ARG:NH1	2.27	0.49
1:L:1375:ILE:O	1:L:1379:MET:HG2	2.12	0.49
4:I:147:VAL:HA	4:I:150:ASN:HD21	1.76	0.49
4:N:147:VAL:HA	4:N:150:ASN:HD21	1.77	0.49
4:N:192:TRP:HB3	4:N:224:GLN:CA	2.42	0.49
1:E:41:ARG:HA	1:E:50:VAL:HA	1.94	0.49
1:E:650:TRP:HB3	1:E:654:TYR:CE2	2.46	0.49
2:F:746:ALA:HB2	1:M:721:PHE:CG	2.46	0.49
3:C:435:LEU:HG	3:C:451:TRP:CE3	2.47	0.49
3:C:436:CYS:SG	3:C:466:LEU:HD12	2.52	0.49
3:C:528:GLN:CD	3:C:558:LEU:HA	2.38	0.49
3:C:581:GLN:HE22	3:C:607:HIS:HB2	1.78	0.49
3:C:610:ARG:HG3	3:C:632:ASP:HB3	1.93	0.49
3:C:728:HIS:O	3:C:732:ILE:HG13	2.12	0.49
3:C:804:VAL:CG2	3:C:812:LEU:HD22	2.39	0.49
3:C:854:ARG:CG	3:C:856:LYS:HZ3	2.22	0.49
1:M:593:PRO:O	1:M:625:ARG:NH1	2.45	0.49
1:M:695:THR:OG1	1:M:697:SER:OG	2.14	0.49
1:M:954:GLU:OE1	1:M:954:GLU:N	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:971:ILE:O	1:M:975:VAL:HG22	2.11	0.49
1:A:1526:GLU:O	1:A:1529:LYS:HB2	2.12	0.49
1:B:1070:ALA:HA	1:B:1073:ARG:CZ	2.42	0.49
1:L:1170:GLU:O	1:L:1174:ILE:HG23	2.12	0.49
1:L:1324:TYR:HD2	1:L:1332:MET:HB3	1.77	0.49
1:E:166:LEU:HD11	1:E:181:MET:HB3	1.94	0.49
1:E:641:VAL:HA	1:E:644:HIS:CD2	2.46	0.49
3:C:493:ALA:O	3:C:494:GLU:C	2.55	0.49
3:C:520:ASN:O	3:C:524:ILE:HB	2.13	0.49
3:C:654:TYR:N	3:C:654:TYR:CD1	2.72	0.49
1:A:1433:THR:HA	1:A:1436:VAL:HG22	1.93	0.49
1:A:1619:LEU:HA	1:A:1622:GLU:HG3	1.94	0.49
1:J:1469:ASN:O	1:J:1473:THR:HG23	2.12	0.49
1:J:1604:LYS:O	1:J:1608:THR:HG23	2.13	0.49
1:L:1402:GLU:HA	1:L:1405:TYR:CD2	2.47	0.49
1:H:857:LEU:HD23	1:H:857:LEU:H	1.77	0.49
1:E:159:ASP:C	1:E:162:GLN:H	2.19	0.49
1:E:476:LEU:HD12	1:E:496:GLY:HA3	1.94	0.49
3:C:434:GLU:O	3:C:438:PRO:HD2	2.13	0.49
3:C:567:LEU:O	3:C:571:LYS:HG3	2.13	0.49
3:C:676:ARG:HA	3:C:679:LEU:HD11	1.94	0.49
1:M:827:ASP:HA	1:M:830:LYS:HD2	1.94	0.49
1:M:904:VAL:O	1:M:907:LYS:HG3	2.13	0.49
1:B:909:CYS:HA	1:B:912:ARG:HH11	1.77	0.49
1:L:1388:GLU:H	1:L:1388:GLU:CD	2.20	0.49
1:H:671:LEU:HA	1:H:674:ASN:HB2	1.95	0.49
1:E:218:PHE:CZ	1:E:229:HIS:HB2	2.47	0.49
1:E:276:ILE:HD13	1:E:303:ILE:HD12	1.94	0.49
1:E:387:ALA:CB	1:E:392:LEU:H	2.26	0.49
1:E:451:TRP:O	1:E:455:ASP:N	2.46	0.49
1:E:554:MET:C	1:E:557:ASN:H	2.21	0.49
1:E:671:LEU:HD12	1:E:698:LEU:HD13	1.95	0.49
1:B:1176:ALA:O	1:B:1180:THR:HG22	2.13	0.49
1:L:1025:GLN:O	1:L:1029:ILE:N	2.35	0.49
1:L:1365:TYR:O	1:L:1369:GLU:N	2.45	0.49
1:H:635:ASP:O	1:H:638:ARG:HD3	2.13	0.49
1:H:726:ASP:O	1:H:730:LYS:HG2	2.12	0.49
1:E:49:GLN:HG2	1:E:65:PRO:HA	1.95	0.49
1:E:395:PRO:O	1:E:399:ARG:HG3	2.12	0.49
3:C:461:GLU:HB2	3:C:488:VAL:HG11	1.94	0.49
3:C:553:PHE:HB3	3:C:558:LEU:C	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:794:ASN:OD1	3:C:795:ASN:N	2.40	0.49
3:C:812:LEU:O	3:C:816:ILE:HG13	2.12	0.49
1:M:964:ASN:HD21	1:M:966:TYR:HB2	1.77	0.49
1:M:1030:LEU:O	1:M:1034:LYS:HG2	2.12	0.49
1:A:1326:LYS:O	4:D:106:TRP:NE1	2.46	0.49
1:A:1411:TYR:HB3	1:A:1419:LEU:HB2	1.94	0.49
1:B:848:GLU:O	1:B:852:ARG:NH1	2.45	0.49
1:B:1041:MET:HA	1:B:1044:ILE:HD12	1.94	0.49
1:B:1107:VAL:HA	1:B:1110:GLN:HG2	1.94	0.49
1:B:1171:THR:HG22	1:B:1197:HIS:H	1.77	0.49
1:L:973:GLN:O	1:L:977:THR:HG23	2.12	0.49
1:L:1111:LEU:O	1:L:1115:GLN:NE2	2.33	0.49
1:H:811:ARG:O	1:H:815:VAL:HG23	2.13	0.49
3:C:429:LYS:HA	3:C:458:GLU:HG3	1.95	0.49
3:C:808:ASN:ND2	3:C:811:ARG:HE	2.10	0.49
1:B:985:PRO:HD3	1:B:1018:PHE:HZ	1.77	0.49
4:D:151:LYS:O	4:D:155:ARG:NH1	2.45	0.49
4:D:159:LYS:HA	4:D:162:TYR:CD2	2.48	0.49
4:O:113:ARG:NH2	4:O:116:GLU:HB3	2.27	0.49
1:L:1096:TYR:HB2	1:L:1111:LEU:HD21	1.95	0.49
1:L:1149:ASN:OD1	1:L:1153:LEU:HD11	2.12	0.49
1:L:1326:LYS:HD3	1:L:1326:LYS:HA	1.56	0.49
1:L:1371:TYR:O	1:L:1375:ILE:HG12	2.13	0.49
1:E:394:THR:OG1	1:E:397:THR:HG23	2.12	0.49
1:E:472:PRO:O	1:E:476:LEU:HG	2.13	0.49
1:E:615:GLN:O	1:E:618:GLU:HB2	2.13	0.49
3:C:401:PHE:HZ	3:C:416:GLN:HG2	1.77	0.49
3:C:474:LEU:O	3:C:478:VAL:HG23	2.13	0.49
3:C:490:GLN:OE1	3:C:504:TYR:HB3	2.13	0.49
3:C:534:GLN:HB2	3:C:565:PHE:CA	2.42	0.49
3:C:562:CYS:O	3:C:566:LEU:HG	2.13	0.49
3:C:658:LEU:HB2	3:C:688:LYS:NZ	2.28	0.49
1:M:876:HIS:CG	1:M:899:TYR:HB2	2.48	0.49
1:M:930:LEU:HG	1:M:943:LEU:HD11	1.95	0.49
1:A:1306:ALA:O	1:A:1309:LEU:HG	2.13	0.49
1:A:1386:TRP:HZ2	1:A:1388:GLU:CD	2.21	0.49
1:A:1580:ASP:N	1:A:1580:ASP:OD1	2.45	0.49
1:A:1605:GLU:HG2	1:A:1609:LYS:HE2	1.93	0.49
1:A:1609:LYS:HA	1:A:1612:LYS:HE3	1.95	0.49
4:D:110:GLN:O	4:D:114:LEU:HG	2.12	0.49
1:J:1563:ARG:NH1	1:J:1593:ASP:OD2	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1532:SER:O	1:K:1537:ALA:N	2.45	0.49
1:E:50:VAL:O	1:E:64:ARG:N	2.40	0.49
1:E:263:ALA:O	1:E:275:LEU:HD12	2.13	0.49
1:E:272:VAL:HB	1:E:284:LEU:HD11	1.94	0.49
1:E:347:LEU:HD23	1:E:350:ARG:HD2	1.95	0.49
1:E:709:GLU:HB3	1:E:713:TYR:CE2	2.48	0.49
3:C:393:ARG:NH1	3:C:435:LEU:HD22	2.28	0.49
3:C:510:TYR:HD2	3:C:513:ASP:N	2.08	0.49
3:C:756:PRO:HG3	3:C:781:PHE:CZ	2.47	0.49
1:M:696:GLN:O	1:M:699:ILE:HG12	2.13	0.49
1:M:816:ILE:HA	1:M:819:LEU:HG	1.94	0.49
1:B:1253:TRP:HE3	1:B:1272:CYS:HB3	1.77	0.49
4:O:122:LYS:HA	4:O:125:GLU:HG2	1.94	0.49
1:J:1622:GLU:HA	1:J:1625:GLN:HG2	1.95	0.49
1:K:1513:TYR:HA	1:K:1516:LYS:NZ	2.27	0.49
1:K:1527:LEU:HD12	1:K:1530:LYS:HB2	1.93	0.49
1:L:1238:GLN:O	1:L:1241:VAL:HG22	2.12	0.49
1:E:90:ILE:O	1:E:100:LYS:N	2.43	0.49
1:E:630:PHE:CG	1:E:639:ALA:HB2	2.47	0.49
1:E:707:SER:O	1:E:711:LEU:HG	2.12	0.49
3:C:427:LEU:HD13	3:C:431:GLU:CD	2.38	0.49
3:C:517:LEU:HD11	3:C:532:PHE:CD2	2.48	0.49
3:C:534:GLN:HB2	3:C:565:PHE:CG	2.47	0.49
3:C:729:PHE:CE1	3:C:758:ARG:HG3	2.47	0.49
3:C:745:GLU:HB3	3:C:773:PRO:HG3	1.94	0.49
3:C:782:ASP:HA	3:C:784:VAL:HG13	1.95	0.49
1:M:675:ILE:HG23	1:M:676:ARG:NH2	2.28	0.49
1:M:683:VAL:HG21	1:M:710:GLY:HA3	1.94	0.49
1:A:1333:ARG:HE	1:A:1337:GLU:CD	2.20	0.49
1:A:1411:TYR:HB2	1:A:1419:LEU:HD22	1.95	0.49
1:A:1605:GLU:O	1:A:1609:LYS:HG2	2.13	0.49
1:B:816:ILE:HG23	1:B:839:GLN:NE2	2.28	0.49
1:B:1137:TYR:O	1:B:1141:VAL:HG23	2.13	0.49
1:L:945:ARG:O	1:L:949:ARG:N	2.46	0.49
1:E:40:ILE:N	1:E:51:VAL:O	2.33	0.48
1:E:49:GLN:CG	1:E:65:PRO:HA	2.43	0.48
1:E:173:GLN:HG2	1:E:174:GLN:HG3	1.95	0.48
1:E:211:GLU:HB2	1:E:237:PRO:HG2	1.95	0.48
3:C:490:GLN:CB	3:C:513:ASP:HB2	2.41	0.48
3:C:528:GLN:HG2	3:C:558:LEU:HD12	1.95	0.48
1:M:840:PHE:CZ	1:M:842:THR:HA	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1537:ALA:O	1:A:1541:ALA:N	2.28	0.48
1:B:942:SER:HA	1:B:945:ARG:HD2	1.95	0.48
1:B:1010:LYS:HZ2	1:B:1013:LEU:HD13	1.78	0.48
1:B:1092:LEU:HD21	1:B:1115:GLN:HE22	1.78	0.48
1:B:1148:GLY:HA2	1:B:1150:TRP:CZ3	2.48	0.48
1:L:1236:GLU:OE1	1:L:1240:ALA:N	2.46	0.48
1:H:771:GLN:HB2	1:H:773:PRO:HD2	1.94	0.48
1:E:122:VAL:HG13	1:E:127:VAL:HG22	1.96	0.48
1:E:484:VAL:HG12	1:E:504:TYR:HE2	1.76	0.48
1:E:543:LEU:HB2	1:E:546:ILE:HG13	1.95	0.48
1:E:571:LYS:HA	1:E:603:GLN:HE22	1.78	0.48
3:C:623:LEU:HD23	3:C:626:ALA:HB3	1.94	0.48
3:C:706:LYS:O	3:C:707:SER:OG	2.31	0.48
1:A:1334:GLU:H	1:A:1334:GLU:CD	2.20	0.48
1:A:1389:GLY:O	1:A:1392:LYS:HB2	2.12	0.48
1:B:1021:HIS:HB3	1:B:1049:ASN:OD1	2.12	0.48
1:B:1166:GLU:OE2	1:B:1168:TYR:N	2.29	0.48
1:J:1588:ARG:NH2	4:N:221:SER:HB2	2.25	0.48
1:E:338:ILE:HB	1:E:348:ALA:HB2	1.94	0.48
1:E:567:LEU:HD21	1:E:599:ILE:HG12	1.94	0.48
3:C:627:LEU:HA	3:C:630:PHE:HD2	1.78	0.48
3:C:706:LYS:NZ	3:C:708:PHE:HA	2.29	0.48
3:C:793:ARG:NH2	1:B:1221:VAL:CG1	2.76	0.48
1:A:1251:ARG:HA	1:A:1254:LYS:HZ2	1.77	0.48
1:J:1526:GLU:OE1	1:J:1530:LYS:NZ	2.43	0.48
1:K:1419:LEU:O	1:K:1423:LEU:HG	2.14	0.48
1:L:1115:GLN:O	1:L:1120:MET:N	2.47	0.48
1:L:1144:ALA:CA	1:L:1149:ASN:HD21	2.26	0.48
1:L:1242:ASP:HA	1:L:1245:ARG:NH2	2.27	0.48
1:E:243:PHE:CZ	1:E:246:LYS:HG2	2.49	0.48
1:E:339:THR:O	1:E:343:GLN:HA	2.13	0.48
1:E:351:MET:O	1:E:355:ASN:HB2	2.13	0.48
1:E:392:LEU:C	1:E:397:THR:HG21	2.38	0.48
1:E:522:MET:HG3	1:E:549:ILE:HA	1.94	0.48
1:E:552:VAL:HA	1:E:555:GLU:OE1	2.13	0.48
3:C:392:LEU:HD23	3:C:397:THR:HB	1.95	0.48
3:C:429:LYS:HD3	3:C:458:GLU:CG	2.39	0.48
3:C:510:TYR:CD2	3:C:512:PRO:HB2	2.48	0.48
3:C:662:ASP:C	3:C:664:LEU:N	2.70	0.48
1:M:577:GLU:O	1:M:581:GLN:HG2	2.14	0.48
1:M:952:ASP:HB3	1:M:955:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1547:THR:C	1:A:1548:GLU:HG3	2.39	0.48
1:B:858:LEU:HB3	1:B:861:TRP:HE3	1.78	0.48
1:J:1492:ASN:HD22	1:J:1514:LEU:HB2	1.77	0.48
1:K:1558:LEU:HD23	1:K:1563:ARG:HB3	1.95	0.48
1:L:1067:GLU:H	1:L:1067:GLU:CD	2.18	0.48
1:L:1225:GLY:O	1:L:1229:SER:N	2.28	0.48
1:H:810:SER:O	1:H:813:PRO:HD2	2.13	0.48
1:E:267:SER:HB3	1:E:274:PHE:HE2	1.78	0.48
1:E:506:LYS:HZ3	1:E:539:ASP:HB3	1.78	0.48
3:C:392:LEU:HD13	3:C:401:PHE:CE2	2.48	0.48
3:C:436:CYS:SG	3:C:457:LEU:HD11	2.53	0.48
3:C:599:ILE:HG22	3:C:604:MET:CB	2.35	0.48
3:C:660:VAL:C	3:C:662:ASP:H	2.22	0.48
3:C:709:GLU:O	3:C:713:TYR:HD2	1.97	0.48
3:C:755:ASP:H	3:C:758:ARG:HH21	1.61	0.48
1:A:1344:ASN:CG	1:A:1346:PRO:HD2	2.38	0.48
1:A:1586:ALA:O	1:A:1591:ILE:N	2.29	0.48
1:B:1103:ASN:HA	1:B:1108:TRP:CZ2	2.42	0.48
1:B:1223:ASN:N	1:B:1227:LEU:HD23	2.28	0.48
1:B:1260:CYS:HB2	1:B:1269:ALA:HB2	1.96	0.48
4:D:148:GLU:HA	4:D:151:LYS:HE2	1.95	0.48
1:L:981:GLU:OE2	1:L:984:ASP:N	2.31	0.48
1:H:670:MET:HE2	1:H:678:ASN:HB2	1.95	0.48
1:H:701:LEU:O	1:H:704:SER:OG	2.23	0.48
4:N:201:PHE:CE2	4:N:203:PRO:HG3	2.48	0.48
1:E:266:ILE:HG12	1:E:273:VAL:HG13	1.95	0.48
1:E:502:VAL:HG23	1:E:540:GLU:HG3	1.95	0.48
1:E:527:ASP:HA	1:E:561:GLN:NE2	2.29	0.48
1:E:603:GLN:HB3	1:E:607:HIS:HB2	1.95	0.48
1:E:605:PHE:HE1	1:E:633:LEU:HG	1.78	0.48
3:C:450:LYS:HB3	3:C:454:GLU:OE1	2.14	0.48
3:C:610:ARG:NH2	3:C:632:ASP:OD1	2.47	0.48
3:C:617:CYS:SG	3:C:626:ALA:HA	2.53	0.48
3:C:665:GLU:HA	3:C:668:ARG:HH21	1.78	0.48
1:M:788:VAL:HA	1:M:791:LEU:HB2	1.95	0.48
1:A:1547:THR:OG1	1:A:1548:GLU:N	2.46	0.48
1:A:1554:LEU:HA	1:A:1557:PHE:HB3	1.96	0.48
1:A:1571:PHE:HD1	4:D:214:ARG:CZ	2.26	0.48
1:J:1509:ARG:HG2	1:J:1510:ILE:HD13	1.96	0.48
1:J:1555:GLN:HA	1:J:1558:LEU:HD12	1.95	0.48
1:H:741:ILE:O	1:H:745:GLU:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:834:ARG:HB3	2:F:835:GLN:OE1	2.13	0.48
3:C:468:LYS:HE2	3:C:488:VAL:O	2.13	0.48
3:C:472:PRO:HG2	3:C:494:GLU:N	2.28	0.48
3:C:473:THR:CG2	3:C:497:GLN:H	2.27	0.48
3:C:837:ARG:CZ	3:C:840:PHE:HB2	2.44	0.48
3:C:841:SER:OG	3:C:844:GLU:HG2	2.13	0.48
3:C:859:LEU:N	3:C:860:PRO:HD2	2.29	0.48
1:B:973:GLN:O	1:B:977:THR:OG1	2.19	0.48
1:B:1067:GLU:O	1:B:1071:ILE:HG13	2.13	0.48
4:D:215:LEU:HD12	4:D:215:LEU:H	1.78	0.48
1:J:1536:ASP:HA	1:J:1539:GLN:HB3	1.95	0.48
1:H:757:GLU:CD	1:H:757:GLU:H	2.20	0.48
1:E:62:ILE:HG23	1:E:64:ARG:CZ	2.44	0.48
1:E:152:GLN:N	1:E:170:ILE:O	2.42	0.48
1:E:265:GLN:HB2	1:E:315:ILE:HD12	1.96	0.48
1:E:309:HIS:ND1	1:E:326:SER:OG	2.47	0.48
1:E:605:PHE:HB3	1:E:610:ARG:HE	1.79	0.48
1:E:668:ARG:NH2	1:E:694:SER:OG	2.47	0.48
2:F:746:ALA:CB	1:M:721:PHE:N	2.71	0.48
3:C:498:VAL:HA	3:C:532:PHE:CE1	2.49	0.48
3:C:558:LEU:O	3:C:561:GLN:N	2.46	0.48
3:C:577:GLU:HG3	3:C:580:LEU:H	1.79	0.48
1:M:1006:GLU:O	1:M:1010:LYS:HG3	2.13	0.48
1:M:1059:ALA:HB1	1:M:1064:LEU:HD12	1.94	0.48
1:A:1267:ARG:O	1:A:1270:GLN:HB2	2.13	0.48
1:A:1300:ILE:O	1:A:1303:LEU:HB3	2.13	0.48
1:A:1377:THR:HA	1:A:1380:ASN:OD1	2.14	0.48
1:A:1615:ALA:O	1:A:1619:LEU:HD23	2.14	0.48
1:B:1025:GLN:HA	1:B:1028:LEU:HB3	1.95	0.48
1:B:1032:ALA:HB1	1:B:1040:VAL:HG12	1.94	0.48
1:B:1148:GLY:HA2	1:B:1150:TRP:HZ3	1.78	0.48
1:K:1579:PRO:O	1:K:1583:LEU:HG	2.14	0.48
1:L:1040:VAL:HA	1:L:1043:TYR:CD2	2.49	0.48
1:L:1152:GLU:N	1:L:1152:GLU:OE1	2.46	0.48
1:L:1199:GLN:HE22	1:L:1221:VAL:HG11	1.79	0.48
1:H:857:LEU:O	1:H:860:PRO:HD2	2.13	0.48
1:E:38:ILE:O	1:E:53:ILE:N	2.43	0.48
1:E:197:HIS:HB3	1:E:261:PRO:O	2.14	0.48
1:E:349:LEU:HG	1:E:363:LEU:HD13	1.96	0.48
1:E:682:CYS:HA	1:E:714:PHE:CE2	2.48	0.48
3:C:393:ARG:NH1	3:C:427:LEU:HB2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:501:ILE:HD12	3:C:532:PHE:CE1	2.48	0.48
3:C:553:PHE:CE1	3:C:561:GLN:HB2	2.49	0.48
3:C:597:ASP:O	3:C:600:LEU:HB3	2.14	0.48
3:C:610:ARG:HH22	3:C:629:HIS:CA	2.27	0.48
1:M:749:ARG:O	1:M:752:ASN:ND2	2.28	0.48
1:M:812:LEU:O	1:M:815:VAL:HG22	2.14	0.48
1:M:855:LEU:H	1:M:856:LYS:HZ2	1.61	0.48
1:M:897:ASN:OD1	1:M:899:TYR:N	2.47	0.48
1:M:933:VAL:O	1:M:936:GLU:HG2	2.14	0.48
1:B:934:CYS:SG	1:B:935:ASN:N	2.86	0.48
1:L:1105:PRO:HA	1:L:1108:TRP:CD1	2.37	0.48
1:L:1176:ALA:O	1:L:1179:LYS:HB2	2.14	0.48
1:H:819:LEU:HB3	1:H:824:CYS:SG	2.53	0.48
1:E:306:THR:HA	1:E:317:GLY:CA	2.43	0.48
3:C:473:THR:HG21	3:C:497:GLN:H	1.79	0.48
3:C:610:ARG:NH2	3:C:629:HIS:HA	2.29	0.48
3:C:778:CYS:O	3:C:782:ASP:N	2.46	0.48
1:M:604:MET:HG3	1:M:608:TYR:CD2	2.49	0.48
1:M:686:ALA:C	1:M:688:LYS:H	2.22	0.48
1:M:981:GLU:CD	1:M:983:GLN:H	2.22	0.48
1:M:983:GLN:NE2	1:B:890:PRO:HA	2.29	0.48
1:M:1021:HIS:O	1:M:1025:GLN:N	2.34	0.48
1:A:1365:TYR:CZ	1:A:1373:ASN:HB2	2.49	0.48
1:K:1535:LYS:HG2	1:K:1538:MET:HE3	1.95	0.48
1:L:1176:ALA:O	1:L:1180:THR:HG22	2.14	0.48
1:L:1215:LYS:HG2	1:L:1216:LEU:HD23	1.96	0.48
1:L:1296:PHE:O	1:L:1300:ILE:HG12	2.14	0.48
1:H:764:LYS:HZ3	1:H:787:LEU:HA	1.78	0.48
1:E:521:VAL:HB	1:E:522:MET:HE2	1.95	0.47
1:E:625:ARG:O	1:E:629:HIS:HD2	1.97	0.47
3:C:506:LYS:HZ3	3:C:538:GLN:HE21	1.62	0.47
3:C:509:GLY:HA2	3:C:510:TYR:HA	1.54	0.47
3:C:537:VAL:HB	3:C:569:ALA:HB2	1.96	0.47
1:M:663:SER:HA	1:M:666:CYS:HB3	1.96	0.47
1:M:791:LEU:HB3	1:M:796:LEU:HG	1.96	0.47
1:K:1460:ASN:HB3	1:K:1463:VAL:HG12	1.95	0.47
1:L:1248:ASN:HA	1:L:1253:TRP:CZ2	2.48	0.47
1:H:768:LEU:HG	1:H:770:ASP:OD1	2.14	0.47
1:E:22:PRO:HA	1:E:25:ILE:HD12	1.96	0.47
1:E:155:ASN:OD1	1:E:156:TYR:N	2.46	0.47
1:E:426:GLN:HG3	1:E:455:ASP:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:476:LEU:CB	3:C:500:LYS:HE3	2.44	0.47
3:C:675:ILE:HG21	3:C:677:GLN:HE21	1.79	0.47
1:M:1007:LEU:HA	1:M:1010:LYS:NZ	2.29	0.47
1:A:1343:VAL:HG13	1:A:1348:VAL:HG11	1.95	0.47
1:A:1528:CYS:HA	1:A:1531:ASP:HB2	1.95	0.47
1:K:1504:LEU:O	1:K:1508:ARG:HG2	2.14	0.47
1:K:1554:LEU:HB3	1:K:1566:PHE:CZ	2.47	0.47
1:H:749:ARG:O	1:H:780:ARG:NH2	2.47	0.47
1:H:849:VAL:HG11	1:H:858:LEU:HD22	1.96	0.47
1:E:80:ILE:O	1:E:91:PHE:N	2.41	0.47
1:E:274:PHE:CD1	1:E:284:LEU:HD13	2.48	0.47
1:E:372:PHE:CZ	1:E:380:ALA:HB1	2.48	0.47
1:E:594:GLN:HA	1:E:625:ARG:NH2	2.29	0.47
2:F:718:VAL:CG1	1:M:723:GLN:HG3	2.30	0.47
3:C:360:ALA:HB2	3:C:363:LEU:HD12	1.96	0.47
3:C:483:ASN:OD1	3:C:483:ASN:N	2.47	0.47
1:M:700:GLU:HA	1:M:703:GLU:HG3	1.97	0.47
1:M:789:LEU:O	1:M:793:ARG:HG2	2.14	0.47
1:M:927:ASP:OD1	1:M:946:TYR:OH	2.20	0.47
1:A:1511:ALA:O	1:A:1514:LEU:HG	2.14	0.47
1:K:1538:MET:HG2	1:K:1572:THR:HG21	1.96	0.47
1:H:804:VAL:HG13	1:H:809:PRO:HA	1.96	0.47
1:E:21:ASN:ND2	1:E:23:ALA:HB3	2.30	0.47
1:E:206:MET:HE2	1:E:209:ASN:HD22	1.80	0.47
1:E:344:ASN:HB3	1:E:347:LEU:HB2	1.96	0.47
1:E:437:ARG:HA	1:E:440:LEU:HD12	1.96	0.47
1:E:545:ASP:OD2	1:E:548:GLN:NE2	2.48	0.47
3:C:524:ILE:HD11	3:C:526:PRO:HB2	1.96	0.47
3:C:543:LEU:HD23	3:C:549:ILE:HD11	1.96	0.47
3:C:608:TYR:CZ	3:C:613:ILE:HG22	2.50	0.47
3:C:635:ASP:OD1	3:C:638:ARG:NH1	2.47	0.47
3:C:765:GLU:HA	3:C:767:LYS:HZ3	1.79	0.47
3:C:782:ASP:OD1	3:C:784:VAL:HG22	2.15	0.47
3:C:793:ARG:NH2	1:B:1221:VAL:HG13	2.29	0.47
3:C:839:GLN:H	3:C:839:GLN:CD	2.23	0.47
1:M:570:LEU:HD11	1:M:584:LEU:HD12	1.95	0.47
1:M:798:LYS:O	1:M:802:ILE:N	2.31	0.47
1:M:889:ASN:HB2	1:M:891:GLU:OE1	2.13	0.47
1:B:1025:GLN:O	1:B:1028:LEU:HB3	2.14	0.47
1:B:1158:GLN:O	1:B:1162:LYS:HG2	2.13	0.47
1:J:1580:ASP:OD1	1:J:1581:VAL:N	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1582:VAL:HG21	1:J:1598:TYR:CZ	2.50	0.47
1:K:1462:SER:O	1:K:1465:GLU:HG3	2.15	0.47
1:L:1037:ARG:HB2	1:L:1039:ARG:HE	1.80	0.47
1:L:1213:ALA:O	1:L:1216:LEU:N	2.46	0.47
1:L:1290:TYR:O	1:L:1295:TYR:HB2	2.14	0.47
1:L:1430:LEU:HD12	1:L:1431:ASP:H	1.79	0.47
1:E:70:SER:HB3	1:E:111:TRP:CZ2	2.49	0.47
1:E:83:LYS:HG3	1:E:111:TRP:CE2	2.48	0.47
1:E:108:VAL:HG13	1:E:121:LEU:HB3	1.97	0.47
1:E:129:HIS:O	1:E:139:VAL:N	2.40	0.47
1:E:604:MET:HA	1:E:608:TYR:HB2	1.95	0.47
1:E:648:PRO:HB3	1:E:670:MET:CE	2.44	0.47
2:F:854:ILE:HD13	2:F:935:LEU:CD1	2.44	0.47
3:C:472:PRO:HB3	3:C:492:PHE:C	2.39	0.47
3:C:627:LEU:HD23	3:C:630:PHE:CD2	2.50	0.47
3:C:701:LEU:HA	3:C:701:LEU:HD23	1.64	0.47
3:C:772:LEU:H	3:C:773:PRO:HD3	1.79	0.47
3:C:810:SER:HA	3:C:839:GLN:HG2	1.96	0.47
1:M:825:SER:O	1:M:828:VAL:HG22	2.14	0.47
1:M:848:GLU:HA	1:M:851:LYS:HE3	1.96	0.47
1:A:1328:LYS:HB3	1:A:1331:LYS:HB3	1.97	0.47
1:A:1558:LEU:HA	1:A:1563:ARG:NE	2.22	0.47
1:J:1534:TYR:C	1:J:1536:ASP:H	2.21	0.47
1:J:1534:TYR:HA	1:J:1562:LYS:NZ	2.29	0.47
1:L:1420:ASN:ND2	1:L:1448:VAL:HA	2.30	0.47
4:N:125:GLU:HB2	4:N:129:ARG:HH22	1.80	0.47
1:E:8:ARG:N	1:E:328:CYS:O	2.43	0.47
1:E:15:LEU:HG	1:E:322:GLY:O	2.15	0.47
3:C:376:ASN:ND2	3:C:379:GLU:OE2	2.43	0.47
3:C:452:LEU:HD12	3:C:453:LYS:HG3	1.97	0.47
3:C:834:LEU:HG	3:C:860:PRO:HG3	1.96	0.47
1:M:711:LEU:HA	1:M:714:PHE:CB	2.45	0.47
1:M:855:LEU:C	1:M:857:LEU:H	2.22	0.47
1:A:1356:HIS:CE1	4:D:114:LEU:HD13	2.48	0.47
1:A:1405:TYR:HA	1:A:1408:ILE:HG12	1.96	0.47
1:B:1203:ASP:HA	1:B:1206:TYR:CE2	2.50	0.47
1:J:1504:LEU:HD12	1:J:1507:PHE:CE1	2.50	0.47
1:K:1456:GLN:NE2	1:K:1463:VAL:HG22	2.30	0.47
1:L:1388:GLU:O	1:L:1392:LYS:HG3	2.14	0.47
1:E:14:GLN:HG2	1:E:17:ASN:H	1.80	0.47
1:E:299:SER:OG	1:E:301:GLU:O	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:368:PHE:CD2	1:E:392:LEU:HG	2.50	0.47
1:E:395:PRO:HD3	1:E:430:TYR:CG	2.49	0.47
1:E:453:LYS:HG2	1:E:481:ARG:NH2	2.25	0.47
1:E:559:ILE:H	1:E:559:ILE:HD12	1.80	0.47
1:E:650:TRP:HB3	1:E:654:TYR:HE2	1.79	0.47
3:C:383:VAL:O	3:C:387:ALA:HB2	2.14	0.47
3:C:452:LEU:HD13	3:C:478:VAL:CG2	2.44	0.47
3:C:570:LEU:HD11	3:C:581:GLN:HG2	1.95	0.47
3:C:610:ARG:HH22	3:C:629:HIS:HA	1.80	0.47
3:C:614:ALA:CA	3:C:629:HIS:HB2	2.39	0.47
3:C:670:MET:HE1	3:C:679:LEU:HD23	1.97	0.47
3:C:674:ASN:O	3:C:675:ILE:HD13	2.14	0.47
3:C:741:ILE:C	3:C:743:GLU:N	2.71	0.47
1:M:581:GLN:HB2	1:M:608:TYR:OH	2.15	0.47
1:M:703:GLU:HA	1:M:707:SER:OG	2.14	0.47
1:M:903:ARG:NE	1:M:926:CYS:SG	2.87	0.47
1:M:947:LEU:HB3	1:M:956:TRP:CH2	2.49	0.47
1:M:1021:HIS:HB2	1:M:1025:GLN:HB2	1.96	0.47
1:B:1251:ARG:O	1:B:1255:GLU:HG2	2.14	0.47
1:J:1566:PHE:HA	1:J:1569:CYS:SG	2.55	0.47
1:J:1583:LEU:CB	1:K:1603:MET:HE1	2.45	0.47
1:K:1529:LYS:O	1:K:1533:LEU:HD21	2.15	0.47
1:L:1230:THR:O	1:L:1234:LEU:HB2	2.15	0.47
1:H:809:PRO:HD2	1:H:839:GLN:NE2	2.29	0.47
1:E:25:ILE:HD13	1:E:322:GLY:HA3	1.97	0.47
1:E:163:LYS:HB2	1:E:164:TRP:CZ3	2.50	0.47
1:E:335:ILE:N	1:E:336:PRO:HD2	2.29	0.47
1:E:511:THR:N	1:E:512:PRO:HD2	2.30	0.47
3:C:464:GLY:O	3:C:468:LYS:HG3	2.15	0.47
3:C:531:GLN:HA	3:C:532:PHE:CD2	2.50	0.47
3:C:594:GLN:HA	3:C:594:GLN:OE1	2.15	0.47
3:C:762:PHE:CA	3:C:765:GLU:HG2	2.44	0.47
3:C:798:LYS:O	3:C:802:ILE:HG12	2.14	0.47
3:C:800:ILE:O	3:C:804:VAL:HG12	2.15	0.47
3:C:842:THR:O	3:C:846:VAL:HG22	2.15	0.47
1:M:711:LEU:O	1:M:711:LEU:HD23	2.15	0.47
1:M:715:LEU:O	1:M:719:VAL:N	2.42	0.47
1:M:762:PHE:O	1:M:766:ALA:N	2.38	0.47
1:M:879:LEU:HA	1:M:882:ILE:HG12	1.97	0.47
1:M:891:GLU:HA	1:M:894:LEU:HD12	1.96	0.47
1:M:1022:ARG:C	1:M:1024:LEU:H	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1070:ALA:O	1:M:1074:LYS:CB	2.63	0.47
1:A:1410:PHE:HE2	1:A:1415:LYS:HZ3	1.63	0.47
1:A:1554:LEU:O	1:A:1558:LEU:HG	2.15	0.47
1:B:967:ARG:HH21	1:B:1000:LEU:HD11	1.80	0.47
1:B:1167:SER:HA	1:B:1170:GLU:OE1	2.15	0.47
4:D:109:GLU:OE1	4:D:113:ARG:NH2	2.34	0.47
1:K:1442:VAL:HG22	1:K:1444:GLN:HG2	1.97	0.47
1:K:1497:GLN:O	1:K:1501:LYS:NZ	2.30	0.47
1:L:953:PRO:HA	1:L:956:TRP:HB2	1.97	0.47
1:L:1349:LEU:HD23	1:L:1350:ARG:HD2	1.97	0.47
1:E:89:GLN:HA	1:E:101:ALA:HA	1.95	0.47
1:E:146:SER:HA	1:E:149:ALA:HB2	1.96	0.47
1:E:613:ILE:HA	1:E:616:LEU:HG	1.97	0.47
3:C:465:ASP:OD2	3:C:479:TYR:OH	2.32	0.47
3:C:660:VAL:O	3:C:660:VAL:HG13	2.14	0.47
3:C:725:PRO:O	3:C:758:ARG:NH2	2.47	0.47
1:M:805:GLN:HG3	1:M:806:LYS:N	2.30	0.47
1:M:829:ILE:H	1:M:829:ILE:HD12	1.80	0.47
1:M:847:ALA:O	1:M:851:LYS:HG3	2.15	0.47
1:A:1603:MET:O	1:A:1607:LEU:HB2	2.15	0.47
1:B:842:THR:O	1:B:845:LEU:HG	2.15	0.47
1:K:1554:LEU:HD21	1:K:1570:LEU:HA	1.97	0.47
1:L:1279:HIS:HB3	1:L:1281:ASP:OD1	2.14	0.47
1:L:1319:GLU:HA	1:L:1322:ILE:HD12	1.95	0.47
1:H:779:ASP:HB2	1:H:811:ARG:CZ	2.44	0.47
1:E:13:LEU:O	1:E:323:GLN:HA	2.14	0.47
1:E:319:ASN:HD21	1:E:323:GLN:CD	2.22	0.47
3:C:464:GLY:HA3	3:C:479:TYR:CZ	2.50	0.47
3:C:468:LYS:HA	3:C:472:PRO:HA	1.97	0.47
3:C:540:GLU:OE1	3:C:580:LEU:HD22	2.15	0.47
3:C:609:ASP:O	3:C:613:ILE:HG23	2.14	0.47
1:M:711:LEU:HA	1:M:714:PHE:HB2	1.97	0.47
1:A:1260:CYS:O	1:A:1264:LYS:N	2.48	0.47
1:A:1495:LEU:HA	1:A:1498:ARG:HD2	1.97	0.47
1:B:1120:MET:HE2	1:B:1123:GLU:HG2	1.97	0.47
4:D:207:LYS:HE3	4:D:212:VAL:HG22	1.96	0.47
1:K:1433:THR:OG1	1:K:1434:ARG:N	2.48	0.47
1:K:1476:ASP:OD1	1:K:1477:TYR:N	2.48	0.47
1:K:1551:GLU:H	1:K:1551:GLU:CD	2.21	0.47
1:K:1593:ASP:C	1:K:1595:ALA:H	2.22	0.47
1:L:1111:LEU:C	1:L:1115:GLN:HE21	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1199:GLN:NE2	1:L:1221:VAL:HG11	2.30	0.47
1:E:201:PHE:HA	1:E:216:PHE:HA	1.97	0.46
3:C:532:PHE:O	3:C:536:LEU:CB	2.60	0.46
3:C:610:ARG:NH1	3:C:629:HIS:HA	2.30	0.46
1:M:760:LYS:HG3	1:M:764:LYS:HZ1	1.80	0.46
1:A:1347:LYS:HA	1:A:1350:ARG:NH2	2.30	0.46
1:A:1357:LEU:HB3	1:A:1360:GLU:CD	2.40	0.46
1:B:858:LEU:HD22	1:B:861:TRP:CE3	2.50	0.46
1:B:1168:TYR:O	1:B:1171:THR:OG1	2.33	0.46
1:L:971:ILE:O	1:L:975:VAL:HG13	2.15	0.46
1:L:1376:ILE:O	1:L:1380:ASN:ND2	2.49	0.46
4:N:196:ALA:O	4:N:200:ASP:HB2	2.15	0.46
2:F:752:ASP:O	2:F:808:LYS:HE2	2.14	0.46
2:F:899:ILE:HD12	2:F:899:ILE:N	2.28	0.46
3:C:437:ARG:HB3	3:C:438:PRO:HD3	1.97	0.46
3:C:506:LYS:HD2	3:C:536:LEU:HA	1.97	0.46
3:C:519:ARG:O	3:C:523:ARG:HG2	2.15	0.46
3:C:534:GLN:HB2	3:C:565:PHE:CB	2.44	0.46
3:C:762:PHE:HA	3:C:765:GLU:CD	2.40	0.46
3:C:841:SER:O	3:C:844:GLU:HG2	2.14	0.46
1:B:1222:SER:HB3	1:B:1224:PHE:CZ	2.50	0.46
1:K:1563:ARG:HD2	1:K:1594:PHE:HZ	1.80	0.46
1:K:1619:LEU:O	1:K:1622:GLU:HG3	2.14	0.46
1:L:1043:TYR:O	1:L:1046:ARG:N	2.45	0.46
1:L:1309:LEU:HD11	1:L:1317:PHE:CE1	2.51	0.46
1:L:1310:GLU:OE1	1:L:1310:GLU:N	2.48	0.46
1:E:7:ILE:HA	1:E:330:GLU:H	1.79	0.46
1:E:309:HIS:NE2	1:E:311:ALA:HB3	2.31	0.46
1:E:664:LEU:O	1:E:668:ARG:HG3	2.16	0.46
3:C:392:LEU:HD23	3:C:392:LEU:HA	1.79	0.46
3:C:498:VAL:HG22	3:C:532:PHE:CE1	2.50	0.46
3:C:610:ARG:HH12	3:C:629:HIS:HA	1.80	0.46
1:M:572:ASN:O	1:M:576:SER:OG	2.33	0.46
1:M:629:HIS:O	1:M:633:LEU:N	2.48	0.46
1:A:1373:ASN:HA	1:A:1376:ILE:HD12	1.97	0.46
1:A:1586:ALA:HB1	1:A:1591:ILE:O	2.15	0.46
1:B:819:LEU:HD11	1:B:829:ILE:HD13	1.97	0.46
1:B:984:ASP:HB2	1:B:986:GLU:OE2	2.15	0.46
1:B:1251:ARG:HA	1:B:1254:LYS:HE2	1.97	0.46
1:J:1469:ASN:HA	1:J:1472:ILE:HD12	1.97	0.46
1:K:1547:THR:C	1:K:1548:GLU:HG3	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:995:PHE:HB3	1:L:1005:ILE:HG12	1.96	0.46
1:E:414:LEU:HA	1:E:417:TYR:HD2	1.80	0.46
1:E:658:LEU:HD22	1:E:689:TYR:CZ	2.51	0.46
1:E:702:PHE:HB3	1:E:707:SER:OG	2.15	0.46
2:F:892:LYS:HE3	2:F:898:TRP:CZ2	2.50	0.46
3:C:533:ALA:O	3:C:536:LEU:HB3	2.16	0.46
3:C:676:ARG:HG3	3:C:679:LEU:HD11	1.97	0.46
3:C:802:ILE:HA	3:C:805:GLN:HB3	1.98	0.46
3:C:808:ASN:CG	3:C:811:ARG:HE	2.23	0.46
1:M:743:GLU:O	1:M:746:ARG:NE	2.48	0.46
1:M:991:THR:HG22	1:M:995:PHE:CZ	2.51	0.46
1:B:1084:VAL:O	1:B:1088:HIS:HB2	2.15	0.46
1:B:1250:THR:HA	1:B:1253:TRP:CD1	2.37	0.46
1:J:1615:ALA:O	1:J:1619:LEU:HD23	2.15	0.46
1:K:1515:PHE:O	1:K:1519:ASN:N	2.48	0.46
1:L:1023:ASN:HD21	1:L:1027:LEU:HD23	1.81	0.46
1:E:83:LYS:CG	1:E:111:TRP:CZ2	2.99	0.46
1:E:657:SER:HA	1:E:667:LEU:HD22	1.97	0.46
1:E:708:PHE:HA	1:E:711:LEU:HD12	1.97	0.46
3:C:676:ARG:HA	3:C:679:LEU:CD1	2.46	0.46
1:A:1300:ILE:O	1:A:1304:GLU:HG2	2.16	0.46
1:B:864:ALA:HA	1:B:867:HIS:ND1	2.31	0.46
1:B:919:VAL:O	1:B:922:GLU:HB3	2.15	0.46
1:B:1052:ALA:N	1:B:1053:PRO:HD2	2.30	0.46
1:J:1552:GLU:HG2	1:J:1553:LEU:N	2.30	0.46
1:K:1477:TYR:HA	1:K:1480:LEU:HB3	1.96	0.46
1:K:1544:SER:O	1:K:1545:LYS:HG2	2.15	0.46
1:K:1555:GLN:HA	1:K:1558:LEU:HD12	1.97	0.46
1:L:947:LEU:HD22	1:L:956:TRP:CD1	2.51	0.46
1:L:1091:ASN:OD1	1:L:1094:ARG:N	2.47	0.46
1:L:1314:MET:HA	1:L:1317:PHE:CD2	2.50	0.46
1:H:798:LYS:O	1:H:802:ILE:HG12	2.16	0.46
1:E:10:GLN:N	1:E:326:SER:O	2.45	0.46
1:E:260:PHE:CD1	1:E:278:LYS:HB2	2.50	0.46
1:E:301:GLU:HG3	1:E:321:LYS:HE2	1.98	0.46
1:E:518:LEU:HD12	1:E:545:ASP:N	2.31	0.46
1:E:658:LEU:HB3	1:E:689:TYR:CE1	2.50	0.46
1:E:676:ARG:HB2	1:E:705:PHE:CD1	2.48	0.46
3:C:480:LEU:HD12	3:C:504:TYR:OH	2.14	0.46
3:C:487:LYS:HA	3:C:510:TYR:OH	2.15	0.46
3:C:780:ARG:HB3	3:C:781:PHE:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:813:PRO:O	3:C:816:ILE:HB	2.15	0.46
1:M:1026:ASN:OD1	1:M:1026:ASN:N	2.46	0.46
1:A:1299:LEU:HA	1:A:1302:MET:HE2	1.97	0.46
1:A:1324:TYR:CD2	1:A:1332:MET:HA	2.51	0.46
1:A:1557:PHE:HA	1:A:1560:GLU:OE2	2.15	0.46
4:O:122:LYS:O	4:O:125:GLU:HG2	2.15	0.46
1:K:1566:PHE:HB3	1:K:1594:PHE:CD2	2.51	0.46
1:L:986:GLU:N	1:L:986:GLU:OE1	2.48	0.46
1:L:1213:ALA:O	1:L:1217:LEU:HG	2.16	0.46
1:L:1434:ARG:HH12	1:L:1438:TYR:N	2.13	0.46
1:H:647:ASN:ND2	1:H:650:TRP:H	2.13	0.46
4:I:192:TRP:HA	4:I:195:VAL:HG12	1.98	0.46
1:E:33:GLU:HG3	1:E:113:TRP:CD1	2.48	0.46
1:E:434:GLU:HG3	1:E:437:ARG:HH11	1.81	0.46
1:E:633:LEU:HB3	1:E:635:ASP:OD2	2.16	0.46
1:E:644:HIS:NE2	1:E:666:CYS:HB3	2.31	0.46
3:C:510:TYR:HE2	3:C:516:PHE:CE2	2.33	0.46
3:C:574:ARG:CG	3:C:575:PRO:HD3	2.44	0.46
3:C:717:SER:HG	3:C:721:PHE:HE2	1.64	0.46
3:C:755:ASP:H	3:C:758:ARG:CZ	2.29	0.46
3:C:798:LYS:HD3	3:C:801:GLU:OE1	2.15	0.46
1:M:658:LEU:HB2	1:M:688:LYS:HZ3	1.79	0.46
1:M:774:LEU:HD23	1:M:775:ILE:H	1.80	0.46
1:M:984:ASP:HB2	1:M:986:GLU:OE1	2.16	0.46
1:A:1314:MET:HB2	1:A:1342:ARG:O	2.15	0.46
1:B:904:VAL:HA	1:B:907:LYS:HG3	1.96	0.46
4:D:216:ARG:HG2	4:D:217:SER:N	2.31	0.46
4:O:155:ARG:O	4:O:155:ARG:HD3	2.16	0.46
1:L:1242:ASP:HA	1:L:1245:ARG:HE	1.81	0.46
1:L:1267:ARG:O	1:L:1271:MET:HG3	2.16	0.46
1:L:1409:GLN:HB2	1:L:1438:TYR:OH	2.16	0.46
1:L:1417:LEU:HG	1:L:1418:LEU:N	2.31	0.46
1:E:21:ASN:HB3	1:E:24:ASN:HD22	1.79	0.46
3:C:398:ILE:CD1	3:C:417:TYR:CZ	2.98	0.46
3:C:439:VAL:HG23	3:C:444:ARG:HG3	1.96	0.46
3:C:448:LEU:HD11	3:C:457:LEU:CD1	2.46	0.46
3:C:502:VAL:HB	3:C:536:LEU:CA	2.46	0.46
3:C:507:LYS:HB3	3:C:507:LYS:HE2	1.61	0.46
1:M:680:GLN:HG3	1:M:684:GLN:HE21	1.81	0.46
1:M:808:ASN:ND2	1:M:810:SER:OG	2.48	0.46
4:D:149:LYS:O	4:D:152:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1566:PHE:CD2	1:J:1570:LEU:HD23	2.51	0.46
1:K:1502:HIS:HB3	1:K:1507:PHE:HB3	1.96	0.46
1:L:1287:ILE:HG22	1:L:1291:GLN:OE1	2.15	0.46
1:L:1422:LEU:O	1:L:1426:LEU:HD23	2.14	0.46
1:E:199:ALA:HB1	1:E:216:PHE:CZ	2.50	0.46
1:E:522:MET:HA	1:E:553:PHE:CZ	2.50	0.46
1:E:552:VAL:HA	1:E:555:GLU:CD	2.40	0.46
1:E:627:LEU:HD23	1:E:630:PHE:HD2	1.81	0.46
2:F:860:ASN:CB	2:F:862:ASP:OD1	2.61	0.46
3:C:697:SER:O	3:C:700:GLU:HB2	2.16	0.46
3:C:798:LYS:O	3:C:801:GLU:HB3	2.16	0.46
3:C:821:ASP:OD1	3:C:821:ASP:C	2.59	0.46
3:C:825:SER:OG	3:C:826:GLU:N	2.47	0.46
1:M:876:HIS:HA	1:M:879:LEU:HD12	1.97	0.46
1:M:890:PRO:O	1:M:894:LEU:HG	2.16	0.46
1:M:945:ARG:CZ	1:M:949:ARG:HG3	2.46	0.46
1:M:1025:GLN:O	1:M:1029:ILE:N	2.45	0.46
1:A:1296:PHE:O	1:A:1299:LEU:HG	2.16	0.46
1:A:1461:LYS:HZ2	1:A:1490:PHE:HA	1.80	0.46
1:K:1370:GLU:HA	1:K:1373:ASN:HB3	1.98	0.46
1:K:1504:LEU:N	1:K:1508:ARG:HH12	2.14	0.46
1:L:1217:LEU:O	1:L:1221:VAL:HG23	2.16	0.46
1:E:129:HIS:CE1	1:E:141:MET:HB2	2.51	0.46
1:E:163:LYS:HB2	1:E:164:TRP:CE3	2.51	0.46
1:E:710:GLY:HA2	1:E:713:TYR:CD2	2.51	0.46
2:F:770:LEU:HD11	2:F:784:VAL:HG11	1.98	0.46
3:C:465:ASP:CA	3:C:468:LYS:HG3	2.41	0.46
3:C:468:LYS:CB	3:C:492:PHE:HB2	2.40	0.46
3:C:534:GLN:HG3	3:C:568:ASP:OD2	2.16	0.46
3:C:686:ALA:C	3:C:688:LYS:H	2.24	0.46
3:C:803:TYR:O	3:C:807:VAL:HB	2.16	0.46
1:M:921:TYR:O	1:M:925:GLN:N	2.48	0.46
1:M:939:LEU:HD23	1:M:942:SER:N	2.26	0.46
1:A:1515:PHE:CG	1:A:1524:SER:HB3	2.51	0.46
1:A:1549:LEU:O	1:A:1553:LEU:HG	2.16	0.46
1:B:864:ALA:HA	1:B:867:HIS:CE1	2.51	0.46
1:B:1215:LYS:HG2	1:B:1219:ASN:HD21	1.81	0.46
4:D:154:ASN:HB2	4:D:155:ARG:HH12	1.81	0.46
1:J:1471:PHE:HB3	1:J:1476:ASP:HB3	1.98	0.46
1:K:1493:ILE:O	1:K:1497:GLN:NE2	2.32	0.46
1:E:152:GLN:HB3	1:E:170:ILE:HG13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:436:CYS:SG	3:C:448:LEU:HD11	2.56	0.45
3:C:849:VAL:HA	3:C:852:ARG:HB2	1.97	0.45
1:M:615:GLN:O	1:M:619:LYS:HG2	2.16	0.45
1:M:760:LYS:O	1:M:764:LYS:HE3	2.16	0.45
1:M:872:GLU:O	1:M:876:HIS:HD2	1.98	0.45
1:A:1279:HIS:HB3	1:A:1281:ASP:OD1	2.16	0.45
1:B:823:ASP:OD1	1:B:852:ARG:NE	2.39	0.45
4:O:114:LEU:HD23	4:O:117:LEU:HD12	1.98	0.45
1:L:1205:CYS:HA	1:L:1210:MET:HG3	1.98	0.45
1:L:1334:GLU:HG2	1:L:1335:HIS:H	1.81	0.45
1:H:637:LYS:HE2	1:H:638:ARG:HH12	1.81	0.45
1:E:129:HIS:N	1:E:139:VAL:O	2.35	0.45
1:E:167:LEU:N	1:E:182:GLN:O	2.29	0.45
1:E:184:TYR:CE2	1:E:186:VAL:HA	2.50	0.45
1:E:243:PHE:HZ	1:E:246:LYS:HG2	1.81	0.45
1:E:270:HIS:HB2	1:E:272:VAL:HG22	1.99	0.45
1:E:280:GLY:HA3	1:E:299:SER:O	2.17	0.45
1:E:522:MET:HG3	1:E:549:ILE:HG12	1.98	0.45
1:E:664:LEU:HA	1:E:667:LEU:HD12	1.98	0.45
3:C:542:PRO:HG3	3:C:577:GLU:OE2	2.16	0.45
3:C:747:ILE:HA	3:C:750:GLU:HB2	1.98	0.45
1:M:948:VAL:O	1:M:949:ARG:HD2	2.17	0.45
1:M:960:LEU:HA	1:M:967:ARG:HH21	1.81	0.45
1:J:1570:LEU:HD21	1:J:1594:PHE:CD2	2.51	0.45
1:L:1025:GLN:HG3	1:L:1047:LEU:HD11	1.98	0.45
1:L:1177:LEU:O	1:L:1181:ASN:N	2.49	0.45
1:H:689:TYR:O	1:H:692:GLN:HG2	2.15	0.45
1:H:784:VAL:O	1:H:788:VAL:HG22	2.16	0.45
1:E:9:PHE:C	1:E:10:GLN:HG3	2.41	0.45
1:E:119:VAL:O	1:E:130:TRP:N	2.32	0.45
1:E:598:ALA:C	1:E:602:ASN:HD22	2.24	0.45
3:C:491:CYS:O	3:C:492:PHE:HD1	1.99	0.45
3:C:627:LEU:HB2	3:C:649:GLU:OE2	2.17	0.45
1:M:741:ILE:O	1:M:744:VAL:N	2.43	0.45
1:M:937:ASN:OD1	1:M:937:ASN:N	2.47	0.45
1:A:1262:ASP:O	1:A:1264:LYS:HE2	2.16	0.45
1:A:1387:LYS:HD3	1:A:1389:GLY:N	2.32	0.45
1:B:1220:ASN:OD1	1:B:1221:VAL:HG23	2.16	0.45
1:H:699:ILE:HG22	1:H:714:PHE:HE2	1.80	0.45
1:E:83:LYS:NZ	1:E:111:TRP:CE2	2.84	0.45
1:E:451:TRP:O	1:E:456:LYS:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:486:ASN:O	1:E:490:GLN:HG3	2.16	0.45
1:E:508:VAL:HG22	1:E:514:TRP:NE1	2.32	0.45
1:E:567:LEU:HD21	1:E:599:ILE:HG23	1.98	0.45
3:C:571:LYS:HA	3:C:603:GLN:HE22	1.81	0.45
3:C:677:GLN:O	3:C:681:ILE:HG12	2.15	0.45
3:C:717:SER:O	3:C:721:PHE:CD2	2.70	0.45
3:C:790:TYR:HA	3:C:793:ARG:HD3	1.97	0.45
3:C:791:LEU:HA	3:C:794:ASN:ND2	2.17	0.45
1:M:680:GLN:O	1:M:684:GLN:HG3	2.16	0.45
1:M:967:ARG:O	1:M:970:LEU:HG	2.16	0.45
1:B:854:ARG:O	1:B:857:LEU:HG	2.16	0.45
1:B:1092:LEU:HD22	1:B:1120:MET:HE1	1.99	0.45
1:J:1575:ASP:N	4:I:210:LYS:HD3	2.31	0.45
1:J:1595:ALA:N	1:J:1597:PRO:HD2	2.32	0.45
1:K:1375:ILE:HD13	1:K:1391:PHE:CZ	2.52	0.45
1:L:1008:LEU:HA	1:L:1011:ILE:HG12	1.99	0.45
1:H:738:THR:O	1:H:740:GLN:HG2	2.16	0.45
1:H:757:GLU:O	1:H:760:LYS:HG2	2.17	0.45
1:E:64:ARG:O	1:E:66:ILE:N	2.45	0.45
1:E:230:ILE:O	1:E:246:LYS:N	2.23	0.45
1:E:259:ASP:CG	1:E:279:TYR:H	2.23	0.45
1:E:414:LEU:HD22	1:E:418:PHE:CZ	2.52	0.45
1:E:523:ARG:HH21	1:E:552:VAL:CG2	2.30	0.45
1:E:599:ILE:O	1:E:604:MET:HB2	2.17	0.45
3:C:728:HIS:O	3:C:731:TYR:HB3	2.16	0.45
1:M:612:HIS:CE1	1:M:616:LEU:HD11	2.52	0.45
1:M:650:TRP:CE3	1:M:651:LEU:HB2	2.51	0.45
1:M:750:GLU:O	1:M:752:ASN:ND2	2.49	0.45
1:M:871:GLU:OE1	1:M:871:GLU:N	2.46	0.45
1:M:993:LYS:HA	1:M:996:MET:HE2	1.99	0.45
1:A:1333:ARG:O	1:A:1337:GLU:HG2	2.16	0.45
1:A:1408:ILE:HG22	1:A:1419:LEU:HD11	1.98	0.45
1:A:1433:THR:O	1:A:1436:VAL:HG22	2.17	0.45
1:J:1512:ALA:HA	1:J:1515:PHE:CD2	2.52	0.45
1:K:1477:TYR:O	1:K:1481:ARG:N	2.38	0.45
1:K:1592:MET:HE3	1:K:1599:PHE:HE2	1.81	0.45
1:L:1054:ASP:HA	1:L:1057:ASN:HD22	1.81	0.45
1:L:1099:ALA:HB3	1:L:1107:VAL:HG11	1.99	0.45
1:L:1166:GLU:CD	1:L:1167:SER:H	2.24	0.45
1:L:1270:GLN:CD	1:L:1305:ALA:HB3	2.41	0.45
1:E:91:PHE:CE1	1:E:101:ALA:HB2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:266:ILE:HG12	1:E:273:VAL:HG22	1.99	0.45
1:E:284:LEU:N	1:E:294:TYR:O	2.35	0.45
1:E:345:PRO:HB2	1:E:363:LEU:HD21	1.97	0.45
1:E:399:ARG:HA	1:E:402:GLN:OE1	2.17	0.45
1:E:468:LYS:HG3	1:E:475:ALA:CB	2.47	0.45
2:F:718:VAL:CB	1:M:723:GLN:HE21	2.30	0.45
2:F:861:ALA:HB1	2:F:887:LEU:HD21	1.97	0.45
3:C:813:PRO:HG3	3:C:840:PHE:CE1	2.52	0.45
1:M:879:LEU:O	1:M:882:ILE:HG12	2.17	0.45
1:M:955:LEU:O	1:M:958:SER:OG	2.17	0.45
1:A:1288:ASN:HA	1:A:1291:GLN:NE2	2.31	0.45
1:A:1313:HIS:HD2	1:A:1314:MET:SD	2.40	0.45
1:B:826:GLU:HG2	1:B:827:ASP:H	1.82	0.45
1:B:829:ILE:HG13	1:B:833:ILE:HD11	1.99	0.45
1:B:1072:PHE:O	1:B:1076:ASP:N	2.49	0.45
1:B:1251:ARG:N	1:B:1251:ARG:HD2	2.31	0.45
1:J:1581:VAL:O	1:J:1585:THR:HG22	2.17	0.45
1:K:1378:MET:HE2	1:K:1387:LYS:HG3	1.98	0.45
1:K:1493:ILE:H	1:K:1493:ILE:HD12	1.82	0.45
1:K:1502:HIS:HB3	1:K:1507:PHE:CB	2.46	0.45
1:L:1324:TYR:CD2	1:L:1332:MET:HB3	2.52	0.45
1:L:1436:VAL:HG21	1:L:1462:SER:OG	2.17	0.45
1:H:671:LEU:O	1:H:674:ASN:HB2	2.17	0.45
1:H:714:PHE:O	1:H:717:SER:OG	2.23	0.45
1:H:772:LEU:HD23	1:H:775:ILE:HD11	1.99	0.45
1:E:88:LEU:N	1:E:102:HIS:O	2.50	0.45
1:E:445:LYS:O	1:E:449:GLU:HG3	2.16	0.45
1:E:685:VAL:O	1:E:689:TYR:HB2	2.17	0.45
3:C:503:LEU:O	3:C:507:LYS:HB3	2.17	0.45
3:C:525:SER:OG	3:C:526:PRO:HD3	2.16	0.45
3:C:723:GLN:HG2	3:C:724:ASP:N	2.31	0.45
1:M:613:ILE:HA	1:M:616:LEU:HD12	1.98	0.45
1:A:1326:LYS:HG3	1:A:1327:PHE:HD1	1.81	0.45
1:A:1365:TYR:HD1	1:A:1370:GLU:HB3	1.82	0.45
1:A:1547:THR:HG23	1:A:1548:GLU:HG3	1.99	0.45
1:A:1575:ASP:CG	1:A:1576:LEU:HG	2.42	0.45
4:O:129:ARG:HG3	1:L:1413:GLU:HG3	1.99	0.45
1:K:1506:GLU:OE1	1:K:1509:ARG:NH1	2.49	0.45
1:L:1376:ILE:HD12	1:L:1406:ARG:HH12	1.81	0.45
1:E:69:ASP:N	1:E:83:LYS:O	2.45	0.45
1:E:433:LEU:HD13	1:E:437:ARG:NH2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:434:GLU:HG3	1:E:437:ARG:NH1	2.32	0.45
1:E:559:ILE:HA	1:E:562:CYS:SG	2.57	0.45
2:F:891:LEU:CD1	2:F:899:ILE:HB	2.47	0.45
3:C:522:MET:HE2	3:C:548:GLN:NE2	2.31	0.45
3:C:605:PHE:HE1	3:C:610:ARG:HE	1.63	0.45
3:C:778:CYS:SG	3:C:783:PHE:HB2	2.57	0.45
1:M:1070:ALA:O	1:M:1074:LYS:HB2	2.16	0.45
1:A:1336:LEU:C	1:A:1338:LEU:H	2.25	0.45
1:A:1376:ILE:HA	1:A:1406:ARG:NH2	2.31	0.45
1:A:1566:PHE:CD1	1:A:1569:CYS:HB2	2.52	0.45
1:B:1107:VAL:O	1:B:1111:LEU:HG	2.16	0.45
1:K:1481:ARG:NH1	1:K:1510:ILE:HD11	2.32	0.45
1:K:1603:MET:O	1:K:1607:LEU:N	2.37	0.45
1:L:1006:GLU:HG2	1:L:1010:LYS:NZ	2.32	0.45
1:L:1381:HIS:HB3	1:L:1384:ASP:OD2	2.17	0.45
1:E:79:VAL:HG22	1:E:92:ASN:HB2	1.98	0.45
1:E:204:PHE:CE2	1:E:206:MET:HA	2.51	0.45
1:E:414:LEU:HA	1:E:414:LEU:HD23	1.80	0.45
1:E:510:TYR:HB3	1:E:512:PRO:HD2	1.99	0.45
1:E:697:SER:HA	1:E:700:GLU:OE1	2.16	0.45
3:C:803:TYR:CE1	3:C:807:VAL:HG11	2.52	0.45
1:M:638:ARG:HE	1:H:806:LYS:NZ	2.15	0.45
1:M:728:HIS:O	1:M:731:TYR:HB3	2.17	0.45
1:M:903:ARG:NH1	1:M:929:GLU:OE2	2.50	0.45
1:M:1000:LEU:HB3	1:M:1004:LEU:CB	2.47	0.45
1:M:1020:GLU:O	1:M:1024:LEU:HD12	2.16	0.45
1:A:1400:ASN:HB2	1:A:1402:GLU:OE1	2.16	0.45
1:A:1525:VAL:HA	1:A:1528:CYS:SG	2.57	0.45
1:A:1587:TRP:CH2	1:J:1597:PRO:HD3	2.52	0.45
1:B:1140:VAL:HG21	1:B:1156:TYR:CZ	2.51	0.45
4:D:100:PRO:HG2	4:D:101:GLU:OE2	2.17	0.45
1:J:1512:ALA:O	1:J:1515:PHE:HB2	2.17	0.45
1:K:1372:ASP:OD1	1:K:1373:ASN:N	2.48	0.45
1:K:1396:THR:O	1:K:1429:ARG:NH1	2.49	0.45
1:L:1469:ASN:O	1:L:1472:ILE:HB	2.17	0.45
1:E:15:LEU:HD12	1:E:322:GLY:HA2	1.98	0.45
1:E:90:ILE:O	1:E:99:MET:HB3	2.17	0.45
1:E:159:ASP:HB3	1:E:163:LYS:N	2.32	0.45
1:E:462:GLU:O	1:E:466:LEU:HG	2.17	0.45
2:F:716:PRO:HG2	2:F:719:LYS:HD2	1.99	0.45
2:F:899:ILE:N	2:F:899:ILE:CD1	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:398:ILE:HD11	3:C:402:GLN:NE2	2.32	0.45
3:C:508:VAL:HA	3:C:509:GLY:HA2	1.49	0.45
3:C:579:PRO:HA	3:C:582:THR:HB	1.98	0.45
3:C:603:GLN:NE2	3:C:607:HIS:CE1	2.80	0.45
3:C:627:LEU:HA	3:C:627:LEU:HD23	1.61	0.45
1:A:1380:ASN:O	1:A:1381:HIS:ND1	2.50	0.45
1:A:1478:GLN:O	1:A:1482:THR:HG23	2.16	0.45
1:J:1570:LEU:HD21	1:J:1594:PHE:HD2	1.82	0.45
1:L:1092:LEU:HD22	1:L:1120:MET:HE1	1.98	0.45
1:H:786:ASP:N	1:H:786:ASP:OD1	2.46	0.45
1:E:477:SER:O	1:E:480:LEU:HB2	2.17	0.44
1:E:586:GLU:CG	1:E:616:LEU:HD22	2.47	0.44
1:E:699:ILE:HD13	1:E:715:LEU:HD21	1.99	0.44
3:C:421:LEU:O	3:C:425:GLY:N	2.38	0.44
3:C:436:CYS:SG	3:C:448:LEU:HD21	2.57	0.44
3:C:714:PHE:O	3:C:718:ILE:HG13	2.17	0.44
1:M:725:PRO:HA	1:M:728:HIS:CD2	2.52	0.44
1:M:1063:GLU:HG2	1:M:1064:LEU:HD23	1.99	0.44
1:A:1314:MET:O	1:A:1318:THR:HG23	2.17	0.44
1:A:1387:LYS:HD3	1:A:1389:GLY:H	1.82	0.44
1:A:1535:LYS:O	1:A:1538:MET:N	2.49	0.44
1:A:1609:LYS:O	1:A:1612:LYS:HG3	2.17	0.44
1:B:862:LEU:O	1:B:866:ILE:HG12	2.17	0.44
1:B:962:GLU:H	1:B:967:ARG:HH11	1.63	0.44
1:B:1034:LYS:HA	1:B:1034:LYS:HD3	1.85	0.44
1:B:1152:GLU:OE1	1:B:1152:GLU:N	2.50	0.44
4:D:122:LYS:HA	4:D:125:GLU:CD	2.41	0.44
4:D:134:LYS:HA	4:D:137:GLU:OE1	2.17	0.44
4:O:118:ASP:O	4:O:121:SER:OG	2.29	0.44
1:K:1513:TYR:HA	1:K:1516:LYS:HZ1	1.81	0.44
1:K:1513:TYR:HD2	1:K:1516:LYS:HE2	1.81	0.44
1:L:936:GLU:N	1:L:936:GLU:OE2	2.49	0.44
1:L:1209:LYS:HG3	1:L:1211:TYR:OH	2.16	0.44
1:L:1288:ASN:HD22	1:L:1291:GLN:NE2	2.14	0.44
1:E:6:PRO:C	1:E:330:GLU:HB3	2.42	0.44
1:E:594:GLN:H	1:E:594:GLN:HG3	1.47	0.44
3:C:585:LEU:HD13	3:C:608:TYR:CE2	2.51	0.44
1:A:1285:GLU:HA	1:A:1288:ASN:HD22	1.81	0.44
1:A:1384:ASP:OD1	1:A:1384:ASP:N	2.48	0.44
1:A:1402:GLU:HA	1:A:1405:TYR:CD2	2.50	0.44
1:A:1557:PHE:HE2	1:A:1566:PHE:HB2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:844:GLU:CD	1:B:845:LEU:H	2.26	0.44
1:B:858:LEU:HD22	1:B:861:TRP:CD2	2.52	0.44
1:B:883:TYR:HE2	1:B:893:PHE:CE2	2.34	0.44
1:K:1395:ILE:O	1:K:1429:ARG:NH2	2.51	0.44
1:K:1560:GLU:CD	1:K:1560:GLU:H	2.25	0.44
1:K:1604:LYS:HZ1	4:N:213:SER:N	2.00	0.44
1:L:1166:GLU:O	1:L:1195:ASN:ND2	2.49	0.44
1:L:1209:LYS:HA	1:L:1211:TYR:CE1	2.52	0.44
4:I:195:VAL:HA	4:I:198:LEU:HB3	1.97	0.44
1:E:188:ARG:NH1	1:E:234:GLY:HA2	2.31	0.44
1:E:630:PHE:HA	1:E:633:LEU:HD12	1.99	0.44
3:C:506:LYS:HD2	3:C:536:LEU:O	2.17	0.44
3:C:623:LEU:O	3:C:627:LEU:HG	2.17	0.44
3:C:711:LEU:O	3:C:714:PHE:HB3	2.18	0.44
3:C:726:ASP:CG	3:C:758:ARG:HH12	2.24	0.44
3:C:798:LYS:HA	3:C:798:LYS:HE2	1.98	0.44
3:C:828:VAL:HG13	3:C:829:ILE:H	1.83	0.44
1:M:827:ASP:OD1	1:M:828:VAL:N	2.47	0.44
1:M:906:GLY:HA2	1:M:909:CYS:SG	2.58	0.44
1:A:1248:ASN:ND2	1:B:852:ARG:HA	2.32	0.44
1:A:1509:ARG:HG2	1:A:1510:ILE:HD13	1.98	0.44
1:A:1521:TRP:O	1:A:1522:LYS:HG2	2.17	0.44
1:A:1567:GLY:O	1:A:1570:LEU:HG	2.16	0.44
1:A:1621:LYS:HZ1	1:K:1616:SER:HB2	1.81	0.44
1:B:861:TRP:CH2	1:B:865:ARG:HD2	2.51	0.44
1:B:1115:GLN:HB3	1:B:1120:MET:O	2.17	0.44
1:B:1144:ALA:HA	1:B:1149:ASN:HD21	1.82	0.44
1:B:1212:ASP:H	1:B:1234:LEU:HD11	1.82	0.44
1:B:1221:VAL:O	1:B:1221:VAL:HG12	2.18	0.44
4:D:109:GLU:OE2	4:D:110:GLN:HG3	2.17	0.44
4:O:132:ALA:HA	4:O:135:ASP:OD2	2.16	0.44
1:J:1492:ASN:O	1:J:1496:ALA:N	2.43	0.44
1:K:1452:LEU:HB2	1:K:1453:ARG:NH1	2.32	0.44
1:K:1511:ALA:O	1:K:1514:LEU:HG	2.16	0.44
1:L:1020:GLU:O	1:L:1024:LEU:HD22	2.17	0.44
1:L:1150:TRP:HA	1:L:1153:LEU:HD12	1.99	0.44
1:H:678:ASN:HA	1:H:681:ILE:HD11	1.99	0.44
1:H:829:ILE:O	1:H:833:ILE:HG12	2.17	0.44
1:E:44:VAL:N	1:E:47:GLN:O	2.50	0.44
1:E:86:LYS:O	1:E:104:MET:HG2	2.17	0.44
1:E:130:TRP:NE1	1:E:136:SER:O	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:200:SER:OG	1:E:264:MET:SD	2.61	0.44
1:E:650:TRP:CZ2	1:E:678:ASN:OD1	2.70	0.44
3:C:494:GLU:O	3:C:495:THR:HG23	2.18	0.44
3:C:762:PHE:C	3:C:765:GLU:HG2	2.42	0.44
1:M:576:SER:HB3	1:M:603:GLN:OE1	2.18	0.44
1:M:891:GLU:HA	1:M:894:LEU:HB2	1.98	0.44
1:M:961:LEU:HG	1:M:963:SER:H	1.83	0.44
1:A:1372:ASP:O	1:A:1376:ILE:HG13	2.17	0.44
1:B:1039:ARG:HA	1:B:1042:GLU:OE2	2.17	0.44
1:B:1103:ASN:CG	1:B:1108:TRP:HE1	2.25	0.44
4:O:107:ARG:HD2	4:O:107:ARG:HA	1.85	0.44
1:J:1500:GLU:O	1:J:1508:ARG:HG2	2.17	0.44
1:J:1549:LEU:HD21	1:J:1553:LEU:HD13	1.99	0.44
1:J:1560:GLU:HG2	1:J:1560:GLU:O	2.17	0.44
1:K:1547:THR:OG1	1:K:1548:GLU:N	2.50	0.44
1:K:1563:ARG:HA	1:K:1566:PHE:HB2	2.00	0.44
1:L:1080:SER:HA	1:L:1083:GLN:CD	2.43	0.44
1:L:1449:LYS:O	1:L:1453:ARG:HG3	2.17	0.44
1:H:809:PRO:HG2	1:H:839:GLN:H	1.82	0.44
1:H:827:ASP:OD1	1:H:827:ASP:N	2.50	0.44
1:H:840:PHE:HA	1:H:844:GLU:OE2	2.17	0.44
1:E:502:VAL:O	1:E:506:LYS:HG3	2.17	0.44
1:E:528:GLN:H	1:E:528:GLN:CD	2.19	0.44
1:E:615:GLN:HA	1:E:618:GLU:HG3	2.00	0.44
3:C:479:TYR:CB	3:C:489:ILE:HB	2.47	0.44
3:C:724:ASP:HA	3:C:725:PRO:HD2	1.87	0.44
3:C:842:THR:OG1	3:C:861:TRP:NE1	2.50	0.44
1:M:693:LEU:HB3	1:M:695:THR:HG23	2.00	0.44
1:B:1238:GLN:NE2	1:B:1242:ASP:OD1	2.51	0.44
1:K:1515:PHE:HB3	1:K:1520:ARG:O	2.18	0.44
1:K:1565:CYS:SG	4:N:195:VAL:HA	2.57	0.44
1:L:1020:GLU:CD	1:L:1022:ARG:HH11	2.26	0.44
1:L:1317:PHE:HE2	1:L:1342:ARG:NH1	2.16	0.44
1:L:1402:GLU:HA	1:L:1405:TYR:HD2	1.83	0.44
4:I:209:CYS:SG	4:I:210:LYS:N	2.91	0.44
1:E:285:TYR:HA	1:E:291:THR:O	2.17	0.44
1:E:614:ALA:HA	1:E:633:LEU:HD13	1.99	0.44
1:E:661:GLU:HA	1:E:667:LEU:HD11	1.99	0.44
3:C:401:PHE:HZ	3:C:416:GLN:CG	2.30	0.44
3:C:457:LEU:HD13	3:C:463:LEU:HD12	2.00	0.44
3:C:610:ARG:CZ	3:C:613:ILE:HD11	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:614:ALA:HA	3:C:629:HIS:CB	2.41	0.44
3:C:758:ARG:CG	3:C:759:VAL:N	2.81	0.44
1:M:745:GLU:O	1:M:749:ARG:HG2	2.17	0.44
1:M:891:GLU:HG2	1:M:892:ARG:N	2.33	0.44
1:A:1311:ARG:HH21	1:B:885:ASP:HA	1.83	0.44
1:B:1029:ILE:HD13	1:B:1055:ILE:HG12	2.00	0.44
4:D:102:SER:HA	4:D:105:LYS:HE2	2.00	0.44
4:D:134:LYS:O	4:D:138:GLU:HG3	2.18	0.44
1:J:1539:GLN:HG2	1:J:1540:TYR:CD1	2.53	0.44
1:J:1613:LEU:O	1:J:1617:GLU:HG3	2.16	0.44
1:L:962:GLU:N	1:L:967:ARG:HH22	2.14	0.44
1:L:1378:MET:HE3	1:L:1378:MET:HB2	1.87	0.44
1:E:349:LEU:HB3	1:E:367:LYS:NZ	2.32	0.44
1:E:467:VAL:HG12	1:E:471:ASP:O	2.18	0.44
3:C:445:LYS:HE3	3:C:470:VAL:HG23	1.99	0.44
3:C:506:LYS:HA	3:C:541:GLU:OE2	2.18	0.44
3:C:610:ARG:HA	3:C:610:ARG:HD2	1.57	0.44
3:C:790:TYR:CZ	3:C:794:ASN:ND2	2.86	0.44
3:C:791:LEU:HA	3:C:791:LEU:HD12	1.45	0.44
1:M:680:GLN:HG3	1:M:684:GLN:NE2	2.33	0.44
1:M:1000:LEU:HB2	1:M:1005:ILE:CG1	2.47	0.44
1:A:1285:GLU:HA	1:A:1288:ASN:ND2	2.33	0.44
1:B:941:LYS:O	1:B:945:ARG:HG3	2.18	0.44
1:B:992:VAL:O	1:B:996:MET:HG2	2.18	0.44
1:B:1009:GLU:OE1	1:B:1031:THR:OG1	2.35	0.44
1:B:1209:LYS:HA	1:B:1211:TYR:CE1	2.53	0.44
4:D:109:GLU:CD	4:D:113:ARG:HH21	2.23	0.44
1:K:1518:ASN:C	1:L:1101:ARG:HH12	2.25	0.44
1:L:1125:ILE:HD13	1:L:1152:GLU:CG	2.47	0.44
1:L:1415:LYS:O	1:L:1419:LEU:N	2.45	0.44
1:H:658:LEU:O	1:H:663:SER:OG	2.31	0.44
1:H:800:ILE:O	1:H:804:VAL:HG23	2.18	0.44
4:I:219:LEU:HA	4:I:223:LYS:HE3	1.99	0.44
1:E:21:ASN:HD21	1:E:23:ALA:HB3	1.82	0.44
1:E:37:PHE:HA	1:E:54:ASP:HA	1.98	0.44
1:E:78:LYS:O	1:E:93:ILE:HG22	2.18	0.44
1:E:426:GLN:N	1:E:455:ASP:O	2.50	0.44
1:E:508:VAL:CG1	1:E:509:GLY:HA2	2.47	0.44
1:E:530:GLN:HA	1:E:534:GLN:CD	2.43	0.44
1:E:654:TYR:HD1	1:E:684:GLN:CD	2.26	0.44
1:E:719:VAL:O	1:E:722:SER:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:711:LEU:HA	3:C:714:PHE:HB3	2.00	0.44
3:C:718:ILE:O	3:C:722:SER:OG	2.21	0.44
1:M:630:PHE:CD1	1:M:635:ASP:HB2	2.53	0.44
1:A:1323:LEU:O	1:A:1327:PHE:N	2.49	0.44
1:A:1499:LEU:HA	1:A:1502:HIS:HB2	1.99	0.44
1:B:902:SER:HA	1:B:905:VAL:HG22	1.99	0.44
1:B:933:VAL:O	1:B:936:GLU:HB2	2.18	0.44
1:L:992:VAL:O	1:L:995:PHE:HB2	2.17	0.44
1:L:995:PHE:CZ	1:L:1008:LEU:HD13	2.53	0.44
1:L:1043:TYR:HD1	1:L:1046:ARG:HE	1.66	0.44
1:L:1128:TYR:HA	1:L:1131:ALA:HB3	2.00	0.44
1:L:1158:GLN:O	1:L:1161:ARG:HB3	2.18	0.44
1:L:1174:ILE:HG22	1:L:1186:LEU:HD11	2.00	0.44
1:L:1345:ILE:HG13	1:L:1346:PRO:CD	2.48	0.44
4:N:204:LYS:HE2	4:N:204:LYS:HB2	1.91	0.44
3:C:405:PRO:O	3:C:413:PRO:HG3	2.17	0.44
3:C:519:ARG:HG2	3:C:523:ARG:CZ	2.48	0.44
3:C:521:VAL:HA	3:C:524:ILE:CB	2.40	0.44
3:C:610:ARG:HG2	3:C:632:ASP:HB3	2.00	0.44
3:C:712:PHE:HD2	3:C:713:TYR:CE2	2.36	0.44
1:M:570:LEU:CD1	1:M:581:GLN:HB3	2.48	0.44
1:M:667:LEU:HA	1:M:667:LEU:HD23	1.88	0.44
1:M:826:GLU:HB2	1:M:857:LEU:CD2	2.48	0.44
1:A:1286:LEU:HD11	1:A:1290:TYR:HE1	1.83	0.44
1:A:1381:HIS:HB3	1:A:1384:ASP:OD2	2.18	0.44
1:A:1438:TYR:O	1:A:1442:VAL:HG13	2.18	0.44
1:B:827:ASP:HA	1:B:830:LYS:NZ	2.33	0.44
1:B:936:GLU:H	1:B:936:GLU:CD	2.23	0.44
1:J:1538:MET:HA	1:J:1541:ALA:HB3	2.00	0.44
1:L:1097:GLU:HA	1:L:1100:GLU:OE1	2.18	0.44
1:L:1468:ASN:O	1:L:1472:ILE:HG13	2.18	0.44
1:E:13:LEU:HD13	1:E:18:LEU:HD11	1.99	0.43
1:E:147:SER:OG	1:E:193:PRO:HB3	2.18	0.43
1:E:159:ASP:HB3	1:E:163:LYS:H	1.83	0.43
1:E:391:ILE:HG22	1:E:392:LEU:HD22	2.00	0.43
1:E:395:PRO:O	1:E:398:ILE:N	2.51	0.43
1:E:439:VAL:CG1	1:E:444:ARG:HB2	2.48	0.43
1:E:485:PRO:O	1:E:489:ILE:HD12	2.18	0.43
1:E:641:VAL:O	1:E:645:LEU:HG	2.18	0.43
1:E:654:TYR:CG	1:E:681:ILE:HG13	2.53	0.43
1:E:709:GLU:HB3	1:E:713:TYR:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:540:GLU:H	3:C:575:PRO:CB	2.30	0.43
3:C:557:ASN:C	3:C:559:ILE:H	2.25	0.43
3:C:610:ARG:HH22	3:C:629:HIS:N	2.16	0.43
3:C:643:THR:HA	3:C:646:LEU:HG	1.99	0.43
3:C:660:VAL:C	3:C:662:ASP:N	2.76	0.43
3:C:742:LYS:HB2	3:C:743:GLU:OE1	2.18	0.43
3:C:791:LEU:O	3:C:794:ASN:CG	2.61	0.43
1:M:897:ASN:HA	1:M:899:TYR:CE2	2.53	0.43
1:M:1003:GLU:N	1:M:1006:GLU:OE2	2.23	0.43
1:M:1065:PHE:CG	1:M:1066:GLU:N	2.86	0.43
1:B:1006:GLU:OE1	1:B:1006:GLU:N	2.51	0.43
1:B:1020:GLU:HG2	1:B:1021:HIS:N	2.33	0.43
1:B:1039:ARG:HA	1:B:1042:GLU:CD	2.43	0.43
1:B:1245:ARG:HA	1:B:1275:HIS:CE1	2.52	0.43
4:O:100:PRO:HD3	1:L:1293:ARG:C	2.43	0.43
1:K:1446:PRO:HB2	4:N:139:TRP:HE1	1.83	0.43
1:L:1082:VAL:HG12	1:L:1095:ALA:HB1	2.00	0.43
1:L:1250:THR:O	1:L:1254:LYS:HG2	2.17	0.43
1:E:74:ASN:ND2	1:E:132:MET:SD	2.90	0.43
1:E:263:ALA:O	1:E:276:ILE:N	2.29	0.43
1:E:429:LYS:O	1:E:433:LEU:HB2	2.17	0.43
1:E:509:GLY:HA2	1:E:510:TYR:HA	1.61	0.43
1:E:587:MET:HA	1:E:591:HIS:CD2	2.53	0.43
1:E:611:ALA:C	1:E:638:ARG:HH12	2.21	0.43
1:E:664:LEU:C	1:E:668:ARG:HG3	2.43	0.43
3:C:404:VAL:HG13	3:C:413:PRO:HB3	1.99	0.43
3:C:439:VAL:HG23	3:C:444:ARG:CG	2.48	0.43
3:C:623:LEU:HA	3:C:623:LEU:HD23	1.65	0.43
3:C:638:ARG:H	3:C:638:ARG:CD	2.21	0.43
3:C:772:LEU:HB2	3:C:775:ILE:CD1	2.48	0.43
3:C:805:GLN:O	3:C:809:PRO:HD3	2.19	0.43
3:C:837:ARG:HH21	3:C:838:GLY:N	2.11	0.43
1:M:718:ILE:HG22	1:M:722:SER:OG	2.18	0.43
1:M:829:ILE:O	1:M:832:LEU:HG	2.18	0.43
1:M:954:GLU:HG2	1:M:955:LEU:HD22	2.00	0.43
1:M:1001:PRO:O	1:M:1004:LEU:HB2	2.17	0.43
1:A:1411:TYR:CD2	1:A:1419:LEU:HD13	2.52	0.43
1:A:1521:TRP:C	1:A:1523:GLN:H	2.26	0.43
1:B:966:TYR:C	1:B:969:PRO:HD2	2.42	0.43
1:B:1042:GLU:HA	1:B:1045:ASN:ND2	2.33	0.43
4:D:126:GLN:NE2	4:D:126:GLN:O	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1568:ALA:HA	4:I:199:CYS:SG	2.59	0.43
1:J:1621:LYS:O	1:J:1625:GLN:HG2	2.18	0.43
1:K:1456:GLN:HG3	1:K:1487:TYR:CE1	2.54	0.43
1:L:995:PHE:CE1	1:L:1000:LEU:HD12	2.53	0.43
1:L:1325:SER:HB3	1:L:1332:MET:HE1	1.99	0.43
4:N:191:GLU:O	4:N:195:VAL:HG13	2.17	0.43
1:E:125:ASN:C	1:E:144:ARG:H	2.22	0.43
1:E:349:LEU:HD22	1:E:367:LYS:HZ2	1.82	0.43
1:E:371:LEU:HB3	1:E:376:ASN:HB2	2.00	0.43
1:E:563:THR:HG22	1:E:588:ASN:CG	2.43	0.43
3:C:613:ILE:HG13	3:C:614:ALA:N	2.33	0.43
3:C:743:GLU:HG3	3:C:746:ARG:HH12	1.83	0.43
1:A:1470:LEU:O	1:A:1474:GLU:CB	2.65	0.43
1:B:858:LEU:HB3	1:B:862:LEU:HG	1.99	0.43
4:D:126:GLN:NE2	4:D:130:GLU:HG3	2.33	0.43
4:D:142:ARG:HA	4:D:145:GLU:CG	2.48	0.43
1:J:1597:PRO:HB2	4:I:214:ARG:HH21	1.83	0.43
1:J:1602:VAL:O	1:J:1605:GLU:HG2	2.17	0.43
1:K:1378:MET:HE1	1:K:1391:PHE:HB2	2.00	0.43
1:L:945:ARG:HA	1:L:948:VAL:HG12	1.99	0.43
1:L:1082:VAL:O	1:L:1086:ILE:HG12	2.17	0.43
1:L:1198:ILE:HG22	1:L:1199:GLN:N	2.33	0.43
1:H:744:VAL:O	1:H:747:ILE:HG12	2.18	0.43
4:N:165:PRO:HG2	4:N:198:LEU:HA	2.00	0.43
4:N:202:ASN:HB2	4:N:204:LYS:NZ	2.33	0.43
1:E:127:VAL:HG12	1:E:129:HIS:CE1	2.53	0.43
1:E:559:ILE:O	1:E:563:THR:HG23	2.18	0.43
3:C:392:LEU:HD13	3:C:401:PHE:CD2	2.54	0.43
3:C:472:PRO:HG2	3:C:494:GLU:HB2	2.01	0.43
3:C:531:GLN:HA	3:C:532:PHE:CE2	2.54	0.43
3:C:537:VAL:HB	3:C:569:ALA:CB	2.49	0.43
3:C:846:VAL:O	3:C:850:GLU:HB2	2.18	0.43
1:B:833:ILE:HD13	1:B:858:LEU:HD23	1.99	0.43
1:B:1057:ASN:HA	1:B:1060:ILE:HG22	2.00	0.43
1:B:1185:GLU:H	1:B:1185:GLU:CD	2.16	0.43
1:B:1223:ASN:O	1:B:1227:LEU:N	2.41	0.43
1:J:1595:ALA:O	1:J:1598:TYR:HB3	2.18	0.43
1:L:1231:LEU:O	1:L:1236:GLU:N	2.52	0.43
1:L:1251:ARG:HE	1:L:1254:LYS:NZ	2.16	0.43
1:L:1401:VAL:HG23	1:L:1404:TYR:CD2	2.54	0.43
1:H:777:VAL:HG13	1:H:780:ARG:HD3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:840:PHE:HZ	1:H:845:LEU:HD22	1.83	0.43
4:I:158:ASP:HA	4:I:161:PHE:HB2	2.00	0.43
1:E:57:ASP:OD1	1:E:59:SER:OG	2.35	0.43
1:E:100:LYS:HG3	1:E:130:TRP:CZ2	2.47	0.43
1:E:306:THR:HA	1:E:317:GLY:HA2	1.99	0.43
1:E:425:GLY:C	1:E:456:LYS:HA	2.44	0.43
1:E:460:SER:OG	1:E:463:LEU:HG	2.19	0.43
1:E:490:GLN:HE22	1:E:509:GLY:C	2.25	0.43
1:E:508:VAL:HG12	1:E:509:GLY:HA2	1.99	0.43
1:E:680:GLN:O	1:E:683:VAL:HG22	2.19	0.43
3:C:460:SER:N	3:C:463:LEU:HD22	2.33	0.43
3:C:490:GLN:HB2	3:C:510:TYR:HH	1.82	0.43
3:C:772:LEU:N	3:C:773:PRO:CD	2.81	0.43
1:M:655:PHE:CZ	1:M:659:SER:HB3	2.53	0.43
1:M:734:ALA:HA	1:M:737:LYS:HG2	2.00	0.43
1:M:849:VAL:O	1:M:852:ARG:N	2.52	0.43
1:A:1356:HIS:HB2	1:A:1358:TRP:CH2	2.53	0.43
1:A:1379:MET:HE1	1:A:1410:PHE:CB	2.48	0.43
1:A:1414:PHE:HZ	4:D:129:ARG:HH21	1.66	0.43
1:B:913:ASP:OD1	1:B:915:HIS:ND1	2.44	0.43
1:B:964:ASN:HD21	1:B:966:TYR:HB2	1.84	0.43
1:B:1082:VAL:O	1:B:1086:ILE:HG12	2.18	0.43
1:B:1144:ALA:HA	1:B:1149:ASN:ND2	2.33	0.43
4:D:165:PRO:HG2	4:D:194:LYS:HZ2	1.83	0.43
1:K:1444:GLN:HB3	1:K:1447:LEU:HB3	2.00	0.43
1:K:1510:ILE:HA	1:K:1513:TYR:HB3	2.00	0.43
1:K:1596:MET:O	1:K:1600:ILE:HG13	2.19	0.43
1:L:1002:ASN:C	1:L:1004:LEU:H	2.26	0.43
1:L:1208:GLU:HB2	1:L:1210:MET:HG2	1.99	0.43
1:H:755:ASP:OD1	1:H:758:ARG:NH2	2.52	0.43
4:N:213:SER:OG	4:N:216:ARG:NH1	2.52	0.43
1:E:402:GLN:CA	1:E:414:LEU:HD21	2.48	0.43
1:E:446:GLN:HA	1:E:449:GLU:OE1	2.18	0.43
1:E:554:MET:HE3	1:E:554:MET:HB3	1.70	0.43
2:F:832:MET:HE3	2:F:898:TRP:CE3	2.54	0.43
3:C:540:GLU:HG3	3:C:575:PRO:O	2.19	0.43
1:M:635:ASP:HB3	1:M:638:ARG:HD2	2.00	0.43
1:A:1527:LEU:HG	1:A:1531:ASP:OD2	2.18	0.43
1:B:1097:GLU:H	1:B:1097:GLU:CD	2.23	0.43
4:I:202:ASN:OD1	4:I:202:ASN:N	2.51	0.43
4:N:200:ASP:OD1	4:N:224:GLN:NE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:14:GLN:HE21	1:E:16:GLN:HB2	1.84	0.43
1:E:37:PHE:CZ	1:E:73:MET:HB2	2.54	0.43
1:E:349:LEU:CG	1:E:363:LEU:HB3	2.48	0.43
1:E:448:LEU:O	1:E:452:LEU:HG	2.18	0.43
1:E:553:PHE:O	1:E:558:LEU:N	2.31	0.43
1:E:654:TYR:CD2	1:E:681:ILE:HG13	2.53	0.43
3:C:367:LYS:HE2	3:C:383:VAL:HG11	2.01	0.43
3:C:492:PHE:HE1	3:C:519:ARG:NH1	2.16	0.43
3:C:832:LEU:HD23	3:C:832:LEU:C	2.43	0.43
1:M:891:GLU:H	1:M:891:GLU:CD	2.26	0.43
1:A:1314:MET:SD	1:A:1314:MET:N	2.92	0.43
1:A:1502:HIS:C	1:A:1504:LEU:H	2.26	0.43
1:B:820:LEU:HB3	1:B:848:GLU:CD	2.44	0.43
1:B:897:ASN:HB3	1:B:900:TYR:CE1	2.54	0.43
1:J:1484:ILE:HG21	1:J:1495:LEU:HD21	2.01	0.43
1:J:1551:GLU:H	1:J:1551:GLU:CD	2.23	0.43
1:K:1566:PHE:HA	1:K:1569:CYS:SG	2.58	0.43
1:L:1025:GLN:HG3	1:L:1047:LEU:HD21	2.00	0.43
1:L:1449:LYS:HE3	1:L:1470:LEU:HD21	2.01	0.43
1:E:89:GLN:HG2	1:E:101:ALA:HB1	2.01	0.43
1:E:176:ARG:HD3	1:E:176:ARG:HA	1.71	0.43
1:E:270:HIS:CE1	1:E:331:GLU:HB3	2.54	0.43
1:E:570:LEU:HD22	1:E:581:GLN:HG2	2.01	0.43
1:E:693:LEU:C	1:E:695:THR:H	2.26	0.43
3:C:457:LEU:HB3	3:C:463:LEU:CD1	2.49	0.43
3:C:667:LEU:HD12	3:C:668:ARG:N	2.33	0.43
3:C:792:TYR:CD1	3:C:792:TYR:O	2.72	0.43
1:M:786:ASP:HA	1:M:789:LEU:HB3	2.01	0.43
1:M:791:LEU:HB3	1:M:796:LEU:CG	2.49	0.43
1:M:875:THR:O	1:M:879:LEU:HG	2.19	0.43
1:A:1310:GLU:HG3	1:A:1311:ARG:HG3	2.01	0.43
1:A:1390:GLN:O	1:A:1394:ILE:HG12	2.18	0.43
1:A:1540:TYR:HA	1:A:1543:GLU:CG	2.45	0.43
1:A:1561:GLU:HA	1:A:1563:ARG:HD3	2.01	0.43
1:B:866:ILE:HG13	1:B:867:HIS:H	1.84	0.43
1:B:879:LEU:O	1:B:882:ILE:HG12	2.18	0.43
1:B:921:TYR:HE2	1:B:933:VAL:HG11	1.84	0.43
4:D:155:ARG:NE	4:D:155:ARG:HA	2.33	0.43
1:K:1391:PHE:CZ	1:K:1403:LEU:HD21	2.53	0.43
1:K:1401:VAL:HA	1:K:1404:TYR:CE2	2.54	0.43
1:K:1528:CYS:SG	1:K:1532:SER:OG	2.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1553:LEU:O	1:K:1556:TRP:HE3	2.02	0.43
1:K:1598:TYR:O	1:K:1601:GLN:HB3	2.18	0.43
1:L:1334:GLU:O	1:L:1338:LEU:HG	2.19	0.43
1:L:1449:LYS:HA	1:L:1452:LEU:HD12	2.01	0.43
4:I:151:LYS:HB2	4:I:151:LYS:HE3	1.86	0.43
1:E:317:GLY:N	1:E:325:LEU:O	2.27	0.43
1:E:459:CYS:O	1:E:482:ALA:HB2	2.19	0.43
3:C:494:GLU:CA	3:C:520:ASN:HB3	2.45	0.43
3:C:511:THR:CG2	3:C:544:ALA:H	2.31	0.43
3:C:538:GLN:H	3:C:538:GLN:HG3	1.59	0.43
3:C:745:GLU:HB3	3:C:773:PRO:HB3	2.01	0.43
3:C:819:LEU:HD12	3:C:824:CYS:HB2	2.00	0.43
3:C:820:LEU:HD23	3:C:852:ARG:CB	2.43	0.43
3:C:820:LEU:HA	3:C:820:LEU:HD12	1.41	0.43
1:M:583:ARG:O	1:M:587:MET:HG3	2.19	0.43
1:M:871:GLU:H	1:M:871:GLU:CD	2.27	0.43
1:M:1069:PHE:HD1	1:M:1072:PHE:HD2	1.66	0.43
1:B:921:TYR:HB3	1:B:926:CYS:HB2	1.99	0.43
1:B:967:ARG:HA	1:B:970:LEU:HD21	2.01	0.43
1:B:995:PHE:HB3	1:B:1005:ILE:HD11	2.00	0.43
1:B:1080:SER:HA	1:B:1083:GLN:HB3	2.00	0.43
4:D:127:GLU:O	4:D:131:LYS:HE3	2.18	0.43
1:L:1251:ARG:HH21	1:L:1254:LYS:HZ3	1.67	0.43
1:L:1442:VAL:C	1:L:1443:LYS:HG3	2.44	0.43
1:H:696:GLN:O	1:H:699:ILE:HG12	2.19	0.43
1:E:83:LYS:HA	1:E:88:LEU:HA	2.00	0.43
1:E:338:ILE:H	1:E:338:ILE:HG13	1.56	0.43
1:E:590:MET:O	1:E:622:LEU:HD11	2.18	0.43
1:E:610:ARG:O	1:E:611:ALA:C	2.61	0.43
3:C:514:TRP:HH2	3:C:532:PHE:HB2	1.84	0.43
3:C:740:GLN:C	3:C:744:VAL:HG23	2.43	0.43
1:M:741:ILE:HA	1:M:744:VAL:HB	2.01	0.43
1:A:1394:ILE:O	1:A:1397:LYS:HE2	2.19	0.43
1:B:1085:LEU:HD21	1:B:1091:ASN:HB3	2.00	0.43
4:I:214:ARG:O	4:I:217:SER:OG	2.23	0.43
1:E:128:TYR:N	1:E:128:TYR:CD1	2.87	0.42
1:E:197:HIS:CE1	1:E:221:ARG:H	2.37	0.42
1:E:625:ARG:O	1:E:626:ALA:C	2.62	0.42
1:E:707:SER:O	1:E:708:PHE:C	2.62	0.42
3:C:688:LYS:HA	3:C:691:GLU:CD	2.44	0.42
3:C:709:GLU:CD	3:C:713:TYR:CD2	2.97	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:777:VAL:HA	3:C:780:ARG:CB	2.47	0.42
1:M:715:LEU:O	1:M:718:ILE:N	2.52	0.42
1:A:1265:GLU:HB3	1:A:1268:LEU:HD13	2.00	0.42
1:A:1344:ASN:HD22	1:A:1347:LYS:HD3	1.83	0.42
1:A:1438:TYR:HA	1:A:1441:LYS:HD3	2.01	0.42
1:A:1596:MET:HE2	1:A:1599:PHE:CD2	2.54	0.42
1:B:1200:GLN:O	1:B:1204:ARG:HG3	2.20	0.42
1:K:1578:ARG:HA	1:K:1579:PRO:HD3	1.93	0.42
1:K:1585:THR:O	1:K:1588:ARG:HG2	2.19	0.42
1:L:1085:LEU:HG	1:L:1089:ILE:HG12	2.01	0.42
1:H:818:GLY:HA2	1:H:821:ASP:OD1	2.19	0.42
1:H:845:LEU:O	1:H:849:VAL:HG13	2.19	0.42
4:N:213:SER:HB2	4:N:216:ARG:HD3	2.01	0.42
1:E:271:ASP:C	1:E:287:LEU:HB3	2.44	0.42
1:E:510:TYR:HB2	1:E:513:ASP:CB	2.45	0.42
1:E:518:LEU:HD22	1:E:549:ILE:HD11	2.01	0.42
1:E:534:GLN:HG3	1:E:565:PHE:HD1	1.84	0.42
3:C:516:PHE:O	3:C:519:ARG:HB3	2.19	0.42
3:C:729:PHE:HE1	3:C:759:VAL:HA	1.83	0.42
3:C:791:LEU:HG	3:C:795:ASN:O	2.20	0.42
3:C:827:ASP:OD1	3:C:827:ASP:N	2.52	0.42
1:M:855:LEU:N	1:M:856:LYS:HZ2	2.17	0.42
1:A:1315:GLY:O	1:A:1318:THR:OG1	2.25	0.42
1:A:1419:LEU:HG	1:A:1423:LEU:HD21	2.01	0.42
1:B:829:ILE:O	1:B:832:LEU:N	2.52	0.42
4:D:212:VAL:HG11	4:D:214:ARG:CZ	2.49	0.42
1:K:1574:TYR:O	1:K:1575:ASP:C	2.62	0.42
1:K:1600:ILE:HG23	1:K:1603:MET:HE2	2.00	0.42
1:L:1070:ALA:HA	1:L:1073:ARG:HE	1.84	0.42
1:L:1377:THR:O	1:L:1381:HIS:N	2.38	0.42
4:I:192:TRP:CE3	4:I:222:LEU:HD22	2.54	0.42
1:E:24:ASN:ND2	1:E:42:GLU:HG3	2.35	0.42
1:E:155:ASN:ND2	1:E:157:ARG:HD3	2.22	0.42
1:E:220:VAL:O	1:E:227:LYS:N	2.48	0.42
1:E:452:LEU:HD22	1:E:459:CYS:HA	2.01	0.42
1:E:495:THR:HA	1:E:532:PHE:CE2	2.55	0.42
1:E:554:MET:SD	1:E:591:HIS:CD2	3.13	0.42
1:E:563:THR:HG22	1:E:588:ASN:HB3	2.01	0.42
1:E:674:ASN:HB3	1:E:681:ILE:HD13	2.01	0.42
3:C:717:SER:OG	3:C:721:PHE:HE2	2.02	0.42
3:C:776:ILE:O	3:C:780:ARG:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:623:LEU:HA	1:M:626:ALA:HB3	2.01	0.42
1:M:902:SER:HA	1:M:905:VAL:HG22	2.01	0.42
1:A:1466:SER:O	1:A:1470:LEU:HD23	2.20	0.42
1:A:1561:GLU:HG3	1:A:1563:ARG:HH11	1.84	0.42
1:A:1584:GLU:CD	1:A:1588:ARG:HE	2.26	0.42
1:A:1611:ASP:OD2	1:A:1612:LYS:N	2.52	0.42
1:B:829:ILE:O	1:B:832:LEU:HG	2.19	0.42
1:B:848:GLU:O	1:B:852:ARG:HG2	2.20	0.42
1:B:907:LYS:O	1:B:910:GLU:HG2	2.19	0.42
1:B:955:LEU:O	1:B:959:VAL:HG23	2.19	0.42
1:B:995:PHE:O	1:B:1000:LEU:N	2.38	0.42
1:B:1242:ASP:HA	1:B:1245:ARG:HH21	1.84	0.42
4:D:154:ASN:HB2	4:D:155:ARG:NH1	2.33	0.42
1:J:1535:LYS:HD2	4:I:198:LEU:HG	2.01	0.42
1:J:1617:GLU:O	1:J:1621:LYS:HG2	2.19	0.42
1:K:1397:LYS:HD3	1:K:1397:LYS:HA	1.65	0.42
1:L:1287:ILE:HD11	1:L:1319:GLU:HG3	2.01	0.42
1:H:771:GLN:OE1	1:H:774:LEU:HG	2.19	0.42
1:H:855:LEU:C	1:H:857:LEU:H	2.26	0.42
1:E:197:HIS:ND1	1:E:260:PHE:HB2	2.34	0.42
1:E:211:GLU:HB2	1:E:240:ASN:HD21	1.84	0.42
1:E:275:LEU:HB3	1:E:283:HIS:HB2	1.99	0.42
1:E:335:ILE:HA	1:E:338:ILE:HD12	2.00	0.42
1:E:586:GLU:HG3	1:E:616:LEU:HD22	2.00	0.42
2:F:718:VAL:HA	1:M:723:GLN:HE21	1.78	0.42
3:C:610:ARG:NE	3:C:613:ILE:HD11	2.34	0.42
3:C:812:LEU:HA	3:C:812:LEU:HD13	1.84	0.42
3:C:830:LYS:HZ2	3:C:858:LEU:HB2	1.85	0.42
1:M:702:PHE:CD2	1:M:707:SER:HB2	2.55	0.42
1:M:793:ARG:NH2	1:L:1221:VAL:HA	2.31	0.42
1:M:856:LYS:C	1:M:857:LEU:HD12	2.45	0.42
1:M:940:PHE:HB2	1:M:973:GLN:HG3	2.01	0.42
1:M:1006:GLU:O	1:M:1009:GLU:HB2	2.19	0.42
1:A:1284:GLU:HA	1:A:1287:ILE:HG12	1.99	0.42
1:A:1353:GLU:OE2	1:A:1354:GLN:NE2	2.48	0.42
1:A:1426:LEU:HD13	1:A:1430:LEU:HD21	2.00	0.42
1:A:1454:SER:OG	1:A:1455:VAL:N	2.52	0.42
1:A:1497:GLN:HA	1:A:1500:GLU:OE1	2.19	0.42
1:A:1530:LYS:HE2	1:A:1530:LYS:HB2	1.87	0.42
1:B:1209:LYS:HA	1:B:1211:TYR:CZ	2.54	0.42
1:J:1574:TYR:OH	1:J:1601:GLN:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1494:SER:HA	1:K:1497:GLN:HG2	2.01	0.42
1:L:931:ILE:HA	1:L:934:CYS:SG	2.59	0.42
1:L:1323:LEU:HD12	1:L:1327:PHE:CE2	2.54	0.42
1:L:1461:LYS:O	1:L:1464:ASN:HB3	2.19	0.42
1:E:92:ASN:OD1	1:E:94:GLU:HB3	2.19	0.42
1:E:158:THR:HA	1:E:165:LEU:HA	2.00	0.42
1:E:163:LYS:O	1:E:186:VAL:N	2.42	0.42
1:E:166:LEU:HD22	1:E:216:PHE:CZ	2.54	0.42
1:E:395:PRO:HD3	1:E:430:TYR:CD1	2.55	0.42
1:E:527:ASP:HA	1:E:561:GLN:CD	2.44	0.42
2:F:905:ILE:HG23	2:F:912:TYR:CE1	2.54	0.42
3:C:483:ASN:CG	3:C:485:PRO:HD3	2.45	0.42
3:C:757:GLU:HA	3:C:760:LYS:HZ3	1.84	0.42
3:C:821:ASP:N	3:C:852:ARG:HH21	2.17	0.42
1:M:803:TYR:CE1	1:M:808:ASN:HB3	2.54	0.42
1:M:884:ILE:HG21	1:M:908:TYR:CE2	2.55	0.42
1:A:1451:TYR:O	1:A:1454:SER:OG	2.13	0.42
1:B:1037:ARG:O	1:B:1040:VAL:HG13	2.19	0.42
1:B:1084:VAL:HA	1:B:1087:GLU:CG	2.49	0.42
1:B:1111:LEU:C	1:B:1115:GLN:HE21	2.27	0.42
1:B:1152:GLU:CD	1:B:1152:GLU:H	2.27	0.42
1:B:1182:ARG:HB3	1:B:1185:GLU:OE2	2.19	0.42
4:D:120:ALA:O	4:D:123:VAL:HG22	2.19	0.42
1:K:1536:ASP:HA	1:K:1539:GLN:HB3	2.00	0.42
1:H:735:ALA:HB2	1:H:744:VAL:HG21	2.02	0.42
1:E:42:GLU:N	1:E:49:GLN:O	2.31	0.42
1:E:91:PHE:CG	1:E:98:LYS:HA	2.54	0.42
1:E:117:ASN:O	1:E:131:SER:HA	2.20	0.42
1:E:252:PHE:HD1	1:E:259:ASP:HB3	1.84	0.42
1:E:553:PHE:CD1	1:E:558:LEU:HB2	2.54	0.42
1:E:637:LYS:O	1:E:641:VAL:HG23	2.18	0.42
3:C:524:ILE:HG12	3:C:526:PRO:HD2	2.00	0.42
3:C:626:ALA:O	3:C:630:PHE:CD2	2.72	0.42
3:C:670:MET:O	3:C:674:ASN:CA	2.68	0.42
3:C:690:HIS:CE1	3:C:694:SER:HB3	2.54	0.42
3:C:733:GLN:HA	3:C:736:CYS:SG	2.59	0.42
3:C:741:ILE:HG13	3:C:742:LYS:H	1.81	0.42
3:C:757:GLU:N	3:C:757:GLU:CD	2.78	0.42
3:C:866:ILE:HG23	3:C:870:CYS:C	2.45	0.42
1:M:733:GLN:HE22	1:M:737:LYS:HD3	1.85	0.42
1:M:953:PRO:HA	1:M:956:TRP:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1389:GLY:HA2	1:A:1392:LYS:HE2	2.01	0.42
1:A:1499:LEU:HB3	1:A:1511:ALA:HB2	2.02	0.42
1:A:1566:PHE:CE2	1:A:1570:LEU:HD23	2.54	0.42
1:B:986:GLU:O	1:B:989:SER:OG	2.31	0.42
1:B:1150:TRP:HD1	1:B:1176:ALA:HB1	1.84	0.42
1:B:1155:LYS:HD2	1:B:1156:TYR:N	2.35	0.42
4:D:103:ILE:HB	4:D:107:ARG:HH11	1.84	0.42
1:J:1592:MET:O	1:J:1596:MET:HG2	2.20	0.42
1:K:1596:MET:HB2	1:K:1597:PRO:HD3	2.00	0.42
1:L:1067:GLU:OE1	1:L:1067:GLU:N	2.39	0.42
1:L:1312:ALA:HB1	1:L:1316:MET:HE3	2.02	0.42
1:H:728:HIS:O	1:H:732:ILE:HG13	2.19	0.42
1:H:787:LEU:O	1:H:791:LEU:HD23	2.19	0.42
4:N:201:PHE:CZ	4:N:203:PRO:HG3	2.54	0.42
4:N:210:LYS:HZ3	4:N:210:LYS:HG2	1.65	0.42
1:E:349:LEU:HD23	1:E:360:ALA:HB1	2.01	0.42
1:E:412:SER:O	1:E:413:PRO:C	2.62	0.42
1:E:515:ILE:HG23	1:E:548:GLN:NE2	2.35	0.42
1:E:526:PRO:HB2	1:E:531:GLN:CD	2.45	0.42
1:E:530:GLN:HA	1:E:534:GLN:OE1	2.20	0.42
1:E:570:LEU:HD11	1:E:584:LEU:HD13	2.01	0.42
1:E:627:LEU:HD22	1:E:639:ALA:HB1	2.01	0.42
2:F:747:LEU:CD1	1:M:719:VAL:HB	2.38	0.42
3:C:438:PRO:O	3:C:442:GLN:HB2	2.19	0.42
3:C:457:LEU:HD22	3:C:463:LEU:CB	2.48	0.42
3:C:528:GLN:CA	3:C:558:LEU:HG	2.48	0.42
3:C:633:LEU:HA	3:C:633:LEU:HD12	1.72	0.42
3:C:637:LYS:HB3	3:C:638:ARG:CZ	2.50	0.42
3:C:791:LEU:O	3:C:792:TYR:C	2.58	0.42
3:C:800:ILE:HD12	3:C:803:TYR:HD2	1.85	0.42
3:C:818:GLY:O	3:C:822:VAL:HG22	2.18	0.42
1:M:646:LEU:HG	1:M:647:ASN:H	1.85	0.42
1:M:650:TRP:HE3	1:M:651:LEU:HB2	1.84	0.42
1:M:808:ASN:HD22	1:M:811:ARG:NH1	2.17	0.42
1:M:812:LEU:HB2	1:M:813:PRO:HD3	2.01	0.42
1:M:1021:HIS:HB2	1:M:1025:GLN:CB	2.50	0.42
1:A:1287:ILE:HG22	1:A:1291:GLN:OE1	2.19	0.42
1:A:1324:TYR:CD1	1:A:1328:LYS:HB2	2.55	0.42
1:A:1434:ARG:HA	1:A:1437:ASN:HD22	1.84	0.42
1:B:928:LEU:O	1:B:932:ASN:ND2	2.53	0.42
1:B:1023:ASN:OD1	1:B:1026:ASN:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:126:GLN:HA	4:O:129:ARG:NH1	2.34	0.42
1:K:1437:ASN:O	1:K:1440:SER:OG	2.28	0.42
1:L:1417:LEU:HG	1:L:1418:LEU:H	1.85	0.42
1:E:219:ALA:HA	1:E:228:LEU:HA	2.00	0.42
1:E:408:PRO:C	1:E:410:GLN:H	2.27	0.42
1:E:503:LEU:HD22	1:E:507:LYS:NZ	2.35	0.42
1:E:562:CYS:O	1:E:565:PHE:N	2.52	0.42
1:E:612:HIS:O	1:E:616:LEU:HG	2.20	0.42
1:E:623:LEU:CD1	1:E:647:ASN:HB2	2.50	0.42
2:F:746:ALA:CA	1:M:721:PHE:N	2.83	0.42
3:C:432:SER:HB2	3:C:457:LEU:HA	2.01	0.42
3:C:514:TRP:CH2	3:C:533:ALA:N	2.87	0.42
1:M:986:GLU:O	1:M:989:SER:OG	2.30	0.42
1:A:1365:TYR:O	1:A:1369:GLU:N	2.48	0.42
1:A:1595:ALA:O	1:A:1598:TYR:HB3	2.19	0.42
1:A:1608:THR:HA	1:A:1611:ASP:OD1	2.19	0.42
1:B:1063:GLU:OE1	1:B:1063:GLU:N	2.50	0.42
4:D:146:GLN:OE1	4:D:149:LYS:HD3	2.20	0.42
4:O:104:ARG:HE	4:O:111:ARG:NH2	2.14	0.42
1:J:1574:TYR:OH	1:J:1602:VAL:HG23	2.20	0.42
1:J:1609:LYS:O	1:J:1612:LYS:HG2	2.20	0.42
1:K:1500:GLU:OE2	1:K:1501:LYS:NZ	2.52	0.42
1:K:1534:TYR:C	1:K:1536:ASP:H	2.28	0.42
1:L:1328:LYS:HB3	1:L:1331:LYS:CD	2.48	0.42
1:H:715:LEU:HB3	1:H:719:VAL:HG23	2.01	0.42
1:E:55:MET:O	1:E:58:PRO:HD3	2.20	0.42
1:E:336:PRO:O	1:E:340:ASN:ND2	2.53	0.42
1:E:366:ARG:HA	1:E:369:ASN:ND2	2.33	0.42
1:E:368:PHE:CD1	1:E:392:LEU:HG	2.55	0.42
1:E:401:PHE:HB3	1:E:417:TYR:CE2	2.55	0.42
1:E:522:MET:O	1:E:523:ARG:HG3	2.20	0.42
3:C:368:PHE:CD1	3:C:384:ALA:HB2	2.54	0.42
3:C:426:GLN:HG2	3:C:456:LYS:O	2.18	0.42
3:C:472:PRO:HG2	3:C:494:GLU:CB	2.50	0.42
3:C:723:GLN:OE1	3:C:723:GLN:N	2.43	0.42
1:M:988:VAL:O	1:M:992:VAL:HG13	2.20	0.42
1:M:1048:ASP:N	1:M:1048:ASP:OD1	2.53	0.42
1:B:826:GLU:HG2	1:B:827:ASP:N	2.35	0.42
4:D:155:ARG:O	4:D:159:LYS:HD3	2.20	0.42
4:O:114:LEU:HA	4:O:117:LEU:HD12	2.02	0.42
1:J:1592:MET:HB3	1:J:1596:MET:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1251:ARG:H	1:L:1251:ARG:HG2	1.69	0.42
1:L:1349:LEU:HD23	1:L:1350:ARG:HH11	1.85	0.42
1:L:1451:TYR:CE1	1:L:1455:VAL:HG11	2.55	0.42
1:H:640:VAL:O	1:H:643:THR:OG1	2.23	0.42
1:E:72:ILE:CG1	1:E:81:ALA:HB3	2.47	0.42
1:E:173:GLN:N	1:E:176:ARG:O	2.53	0.42
1:E:227:LYS:HB3	1:E:229:HIS:CE1	2.55	0.42
1:E:265:GLN:HG3	1:E:308:PRO:HA	2.02	0.42
1:E:281:TYR:CD2	1:E:297:ARG:HG3	2.54	0.42
3:C:477:SER:HB2	3:C:481:ARG:HH21	1.84	0.42
3:C:498:VAL:HG12	3:C:502:VAL:CG1	2.50	0.42
3:C:665:GLU:HA	3:C:668:ARG:NH2	2.35	0.42
3:C:740:GLN:O	3:C:743:GLU:HB2	2.20	0.42
1:M:650:TRP:CE2	1:M:654:TYR:HE2	2.38	0.42
1:M:768:LEU:HG	1:M:770:ASP:OD1	2.20	0.42
1:A:1499:LEU:HA	1:A:1499:LEU:HD23	1.83	0.42
1:A:1584:GLU:OE2	1:A:1588:ARG:NE	2.53	0.42
1:A:1592:MET:O	1:A:1596:MET:N	2.53	0.42
1:A:1604:LYS:HE3	4:D:210:LYS:NZ	2.34	0.42
4:D:222:LEU:HA	4:D:225:THR:HB	2.02	0.42
1:K:1434:ARG:HA	1:K:1437:ASN:ND2	2.34	0.42
1:K:1475:GLU:HG3	1:K:1502:HIS:HE1	1.85	0.42
1:L:1002:ASN:O	1:L:1003:GLU:HB2	2.20	0.42
1:L:1404:TYR:CD1	1:L:1404:TYR:N	2.87	0.42
1:L:1433:THR:O	1:L:1436:VAL:HG22	2.19	0.42
1:L:1435:ALA:HB1	1:L:1439:PHE:CZ	2.55	0.42
1:H:657:SER:OG	1:H:658:LEU:HG	2.20	0.42
1:E:164:TRP:C	1:E:165:LEU:HD23	2.45	0.41
1:E:273:VAL:O	1:E:284:LEU:HD12	2.20	0.41
1:E:485:PRO:O	1:E:489:ILE:HB	2.19	0.41
3:C:589:LEU:HD21	3:C:616:LEU:HD22	2.01	0.41
3:C:665:GLU:C	3:C:668:ARG:HH21	2.27	0.41
3:C:792:TYR:O	3:C:795:ASN:HA	2.20	0.41
1:M:846:VAL:HA	1:M:849:VAL:HB	2.01	0.41
1:M:986:GLU:OE1	1:M:986:GLU:N	2.53	0.41
1:M:1039:ARG:HA	1:M:1042:GLU:OE1	2.19	0.41
1:A:1404:TYR:CD2	1:A:1404:TYR:N	2.88	0.41
1:B:956:TRP:O	1:B:960:LEU:HG	2.20	0.41
1:B:988:VAL:O	1:B:991:THR:HG22	2.19	0.41
4:O:104:ARG:NE	4:O:111:ARG:HH22	2.12	0.41
1:K:1449:LYS:HG3	1:K:1453:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:1471:PHE:CG	1:K:1480:LEU:HB2	2.55	0.41
1:L:1331:LYS:HA	1:L:1334:GLU:OE2	2.19	0.41
1:L:1334:GLU:HG2	1:L:1335:HIS:N	2.35	0.41
1:H:640:VAL:HB	1:H:670:MET:HG2	2.02	0.41
4:I:159:LYS:HA	4:I:162:TYR:CD2	2.54	0.41
4:I:202:ASN:OD1	4:I:204:LYS:NZ	2.49	0.41
1:E:33:GLU:HB2	1:E:37:PHE:CZ	2.54	0.41
1:E:432:SER:HB3	1:E:458:GLU:H	1.85	0.41
1:E:533:ALA:O	1:E:537:VAL:HG23	2.19	0.41
1:E:627:LEU:HA	1:E:630:PHE:HD2	1.85	0.41
3:C:681:ILE:O	3:C:685:VAL:HG22	2.20	0.41
3:C:693:LEU:HD23	3:C:693:LEU:N	2.36	0.41
3:C:845:LEU:HD11	3:C:858:LEU:CD2	2.50	0.41
3:C:854:ARG:HA	3:C:856:LYS:NZ	2.34	0.41
3:C:855:LEU:HD23	3:C:855:LEU:O	2.19	0.41
1:M:640:VAL:HG11	1:M:669:ALA:HB3	2.02	0.41
1:M:898:PRO:HD2	1:M:899:TYR:CE2	2.55	0.41
1:M:966:TYR:C	1:M:969:PRO:HD2	2.45	0.41
1:M:967:ARG:HA	1:M:970:LEU:CD2	2.50	0.41
1:M:1042:GLU:CD	1:M:1042:GLU:H	2.28	0.41
1:A:1347:LYS:HG3	1:A:1350:ARG:NH2	2.35	0.41
1:A:1384:ASP:OD1	1:A:1385:ALA:N	2.53	0.41
1:A:1434:ARG:HA	1:A:1437:ASN:ND2	2.35	0.41
1:B:941:LYS:H	1:B:973:GLN:NE2	2.18	0.41
1:B:952:ASP:HB3	1:B:955:LEU:HD13	2.02	0.41
1:B:1002:ASN:O	1:B:1003:GLU:HB2	2.19	0.41
1:B:1085:LEU:HD23	1:B:1086:ILE:HD13	2.02	0.41
4:O:107:ARG:C	4:O:111:ARG:HE	2.28	0.41
4:O:139:TRP:O	4:O:143:GLN:HG2	2.20	0.41
1:K:1386:TRP:CZ3	1:K:1415:LYS:HD3	2.54	0.41
1:K:1426:LEU:O	1:K:1430:LEU:HD12	2.20	0.41
1:L:1281:ASP:OD1	1:L:1281:ASP:N	2.49	0.41
1:L:1319:GLU:HG2	1:L:1323:LEU:HD23	2.02	0.41
1:H:743:GLU:HA	1:H:746:ARG:NE	2.35	0.41
1:H:764:LYS:HA	1:H:767:LYS:NZ	2.35	0.41
1:H:777:VAL:O	1:H:780:ARG:HB3	2.20	0.41
1:H:808:ASN:ND2	1:H:811:ARG:HG3	2.35	0.41
4:N:138:GLU:O	4:N:141:GLN:NE2	2.53	0.41
1:E:32:MET:HB3	1:E:305:VAL:CG1	2.48	0.41
1:E:37:PHE:CE2	1:E:73:MET:HB2	2.54	0.41
1:E:41:ARG:HG3	1:E:50:VAL:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:152:GLN:HB3	1:E:170:ILE:CG1	2.50	0.41
1:E:166:LEU:HD11	1:E:181:MET:CB	2.50	0.41
1:E:201:PHE:CD1	1:E:233:VAL:HG21	2.55	0.41
1:E:273:VAL:HG23	1:E:287:LEU:HA	2.01	0.41
1:E:288:GLU:OE1	1:E:354:ARG:HD3	2.19	0.41
1:E:654:TYR:OH	1:E:680:GLN:HB2	2.19	0.41
1:E:698:LEU:HA	1:E:698:LEU:HD23	1.60	0.41
3:C:546:ILE:O	3:C:547:THR:C	2.64	0.41
3:C:726:ASP:O	3:C:730:LYS:HG2	2.20	0.41
3:C:864:ALA:HA	3:C:867:HIS:HE1	1.80	0.41
1:M:644:HIS:NE2	1:M:673:ALA:O	2.47	0.41
1:M:968:ARG:HE	1:M:968:ARG:HB3	1.55	0.41
1:M:995:PHE:HB3	1:M:1005:ILE:CD1	2.50	0.41
1:B:861:TRP:CZ3	1:B:862:LEU:HD23	2.55	0.41
1:B:918:CYS:SG	1:B:919:VAL:N	2.93	0.41
1:B:919:VAL:O	1:B:923:ARG:HG2	2.20	0.41
1:B:1126:ASP:HB2	1:B:1130:LYS:NZ	2.36	0.41
1:B:1152:GLU:O	1:B:1155:LYS:HG3	2.20	0.41
4:D:113:ARG:O	4:D:117:LEU:HG	2.20	0.41
4:D:201:PHE:O	4:D:202:ASN:ND2	2.53	0.41
1:K:1404:TYR:HH	1:K:1429:ARG:HH21	1.57	0.41
1:K:1593:ASP:C	1:K:1595:ALA:N	2.77	0.41
1:H:659:SER:HA	1:H:663:SER:H	1.86	0.41
1:H:849:VAL:HB	1:H:855:LEU:HA	2.01	0.41
1:E:286:ASP:HB3	1:E:291:THR:H	1.86	0.41
1:E:301:GLU:HG3	1:E:321:LYS:HG2	2.02	0.41
1:E:350:ARG:O	1:E:354:ARG:HD2	2.20	0.41
1:E:510:TYR:HB2	1:E:513:ASP:OD2	2.20	0.41
1:E:689:TYR:O	1:E:690:HIS:C	2.64	0.41
2:F:748:GLN:N	1:M:720:ASN:HB3	2.35	0.41
3:C:748:CYS:O	3:C:780:ARG:NH1	2.54	0.41
1:M:699:ILE:HD13	1:M:727:VAL:HG12	2.02	0.41
1:M:808:ASN:HD22	1:M:811:ARG:CZ	2.34	0.41
1:M:911:LYS:NZ	1:M:912:ARG:HG3	2.35	0.41
1:A:1331:LYS:HE3	1:A:1335:HIS:HB2	2.03	0.41
1:A:1332:MET:HG2	1:A:1336:LEU:HD11	2.03	0.41
1:A:1373:ASN:HD22	1:A:1376:ILE:HD12	1.85	0.41
1:B:829:ILE:HG23	1:B:830:LYS:N	2.32	0.41
4:O:151:LYS:HB2	4:O:151:LYS:HE3	1.82	0.41
1:K:1601:GLN:CD	1:K:1601:GLN:C	2.88	0.41
1:L:967:ARG:HA	1:L:967:ARG:HD3	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1008:LEU:O	1:L:1012:VAL:HG22	2.19	0.41
1:L:1411:TYR:HB2	1:L:1419:LEU:HG	2.02	0.41
1:H:744:VAL:O	1:H:747:ILE:N	2.53	0.41
1:H:830:LYS:O	1:H:834:LEU:HG	2.19	0.41
1:E:26:GLY:O	1:E:29:THR:N	2.54	0.41
1:E:181:MET:HB2	1:E:194:ILE:HG12	2.02	0.41
1:E:205:LYS:HA	1:E:212:GLU:HA	2.03	0.41
1:E:369:ASN:OD1	1:E:400:ARG:NH2	2.51	0.41
3:C:468:LYS:C	3:C:492:PHE:HD2	2.28	0.41
3:C:819:LEU:HG	3:C:820:LEU:N	2.34	0.41
1:M:561:GLN:OE1	1:M:561:GLN:N	2.54	0.41
1:M:1071:ILE:HG12	1:M:1074:LYS:HE3	2.02	0.41
1:A:1313:HIS:ND1	1:A:1316:MET:HE2	2.36	0.41
1:B:904:VAL:HA	1:B:907:LYS:CG	2.50	0.41
1:B:1126:ASP:HA	1:B:1129:ILE:HB	2.02	0.41
1:K:1398:VAL:HB	1:K:1404:TYR:OH	2.21	0.41
1:L:929:GLU:O	1:L:933:VAL:HG13	2.20	0.41
1:L:1089:ILE:HG13	1:L:1091:ASN:H	1.85	0.41
1:L:1183:LEU:HA	1:L:1186:LEU:HB3	2.02	0.41
1:L:1242:ASP:HA	1:L:1245:ARG:NE	2.35	0.41
1:L:1345:ILE:HG13	1:L:1346:PRO:HD3	2.02	0.41
1:H:764:LYS:NZ	1:H:787:LEU:HA	2.36	0.41
1:E:222:GLY:C	1:E:225:GLY:H	2.28	0.41
1:E:259:ASP:HB2	1:E:279:TYR:CE2	2.56	0.41
1:E:654:TYR:CD1	1:E:681:ILE:HG13	2.56	0.41
1:E:701:LEU:HG	1:E:701:LEU:H	1.62	0.41
2:F:746:ALA:CA	1:M:721:PHE:H	2.33	0.41
3:C:489:ILE:HD13	3:C:489:ILE:HG21	1.81	0.41
3:C:597:ASP:H	3:C:625:ARG:HE	1.68	0.41
3:C:678:ASN:O	3:C:682:CYS:HB2	2.21	0.41
1:M:778:CYS:SG	1:M:787:LEU:HD13	2.60	0.41
1:M:882:ILE:HG13	1:M:883:TYR:CD1	2.55	0.41
1:A:1252:THR:HA	1:A:1255:GLU:OE1	2.20	0.41
1:A:1479:ALA:O	1:A:1482:THR:OG1	2.28	0.41
1:B:989:SER:HB2	1:B:993:LYS:HE3	2.02	0.41
1:B:1227:LEU:O	1:B:1231:LEU:HD13	2.21	0.41
4:O:118:ASP:O	4:O:122:LYS:HG3	2.20	0.41
1:K:1382:PRO:HB3	1:K:1410:PHE:CZ	2.53	0.41
1:K:1595:ALA:N	1:K:1597:PRO:HD2	2.35	0.41
1:L:1080:SER:HA	1:L:1083:GLN:NE2	2.36	0.41
1:L:1149:ASN:O	1:L:1153:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:1226:ARG:O	1:L:1230:THR:HG23	2.21	0.41
1:L:1264:LYS:HA	1:L:1264:LYS:HD3	1.75	0.41
1:L:1292:ASP:OD1	1:L:1292:ASP:N	2.53	0.41
1:L:1397:LYS:HE2	1:L:1397:LYS:HB2	1.86	0.41
1:L:1440:SER:HB3	1:L:1445:LEU:HD11	2.01	0.41
1:H:828:VAL:HA	1:H:831:ASN:HD22	1.86	0.41
1:E:206:MET:SD	1:E:206:MET:N	2.94	0.41
1:E:438:PRO:HA	1:E:441:GLN:OE1	2.21	0.41
1:E:502:VAL:HB	1:E:536:LEU:CD2	2.50	0.41
1:E:554:MET:SD	1:E:591:HIS:CG	3.13	0.41
1:E:630:PHE:CB	1:E:639:ALA:HB2	2.51	0.41
2:F:868:LEU:HB3	2:F:873:VAL:HB	2.03	0.41
3:C:572:ASN:CB	3:C:575:PRO:HG2	2.51	0.41
3:C:614:ALA:CB	3:C:633:LEU:HD22	2.51	0.41
1:M:680:GLN:OE1	1:M:683:VAL:HB	2.20	0.41
1:M:775:ILE:HG13	1:M:776:ILE:N	2.36	0.41
1:M:1064:LEU:HD13	1:M:1067:GLU:HG2	2.01	0.41
1:A:1370:GLU:HG3	1:A:1372:ASP:OD1	2.20	0.41
1:A:1372:ASP:OD1	1:A:1373:ASN:N	2.48	0.41
1:A:1426:LEU:H	1:A:1426:LEU:HG	1.78	0.41
1:A:1493:ILE:C	1:A:1497:GLN:HE21	2.24	0.41
1:A:1620:ARG:HH12	1:J:1621:LYS:HA	1.86	0.41
1:B:844:GLU:OE1	1:B:845:LEU:N	2.54	0.41
1:B:858:LEU:HD13	1:B:861:TRP:CZ3	2.55	0.41
1:B:909:CYS:SG	1:B:917:ALA:HB2	2.61	0.41
1:B:941:LYS:HB3	1:B:977:THR:HG21	2.03	0.41
1:B:1254:LYS:HA	1:B:1257:CYS:HB3	2.03	0.41
1:J:1527:LEU:HA	1:J:1530:LYS:HG3	2.02	0.41
1:J:1610:VAL:HG13	1:J:1611:ASP:OD1	2.21	0.41
1:K:1429:ARG:H	1:K:1429:ARG:HG2	1.62	0.41
1:K:1439:PHE:CG	1:K:1448:VAL:HG11	2.55	0.41
1:K:1471:PHE:HB3	1:K:1480:LEU:HD22	2.03	0.41
1:K:1512:ALA:O	1:K:1515:PHE:HB2	2.21	0.41
1:L:1401:VAL:HA	1:L:1404:TYR:CD2	2.56	0.41
1:H:676:ARG:HD3	1:H:679:LEU:HD13	2.02	0.41
1:E:230:ILE:HG21	1:E:287:LEU:O	2.21	0.41
1:E:349:LEU:CD2	1:E:363:LEU:HB3	2.49	0.41
1:E:368:PHE:O	1:E:369:ASN:C	2.64	0.41
1:E:453:LYS:HG2	1:E:481:ARG:HH12	1.86	0.41
1:E:472:PRO:HG2	1:E:495:THR:OG1	2.20	0.41
1:E:589:LEU:HD22	1:E:629:HIS:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:648:PRO:HB3	1:E:670:MET:HE1	2.02	0.41
1:E:664:LEU:HD13	1:E:694:SER:HB2	2.03	0.41
3:C:402:GLN:HB3	3:C:442:GLN:HE22	1.86	0.41
3:C:472:PRO:HB3	3:C:492:PHE:O	2.20	0.41
3:C:712:PHE:HD2	3:C:713:TYR:CZ	2.38	0.41
3:C:777:VAL:O	3:C:781:PHE:HD2	2.04	0.41
1:M:796:LEU:HD23	1:M:796:LEU:HA	1.92	0.41
1:M:811:ARG:O	1:M:815:VAL:HG13	2.21	0.41
1:M:1037:ARG:O	1:M:1040:VAL:HG22	2.21	0.41
1:A:1283:LEU:O	1:A:1286:LEU:HB3	2.20	0.41
1:A:1430:LEU:HB2	1:A:1432:HIS:CD2	2.55	0.41
1:B:929:GLU:O	1:B:933:VAL:HG22	2.20	0.41
1:B:1000:LEU:HD13	1:B:1000:LEU:HA	1.92	0.41
1:B:1114:ALA:HA	1:B:1117:GLN:OE1	2.20	0.41
1:B:1218:TYR:HB3	1:B:1223:ASN:HB2	2.01	0.41
1:J:1493:ILE:H	1:J:1493:ILE:HD12	1.85	0.41
1:J:1504:LEU:HD12	1:J:1507:PHE:CD1	2.56	0.41
1:L:995:PHE:CD1	1:L:1000:LEU:HD12	2.56	0.41
1:L:1115:GLN:HB2	1:L:1124:ALA:HB2	2.03	0.41
1:L:1152:GLU:HA	1:L:1155:LYS:NZ	2.36	0.41
1:H:820:LEU:HD13	1:H:852:ARG:HG2	2.03	0.41
1:H:830:LYS:HZ1	1:H:861:TRP:HB2	1.86	0.41
1:H:862:LEU:O	1:H:866:ILE:HG12	2.21	0.41
4:I:155:ARG:HD3	4:I:155:ARG:HA	1.80	0.41
1:E:21:ASN:O	1:E:25:ILE:N	2.54	0.41
1:E:123:THR:H	1:E:123:THR:HG1	1.64	0.41
1:E:301:GLU:HB3	1:E:320:ARG:HB3	2.02	0.41
1:E:318:VAL:HA	1:E:323:GLN:O	2.20	0.41
1:E:566:LEU:HD13	1:E:584:LEU:HD22	2.03	0.41
1:E:604:MET:HG3	1:E:613:ILE:HD13	2.02	0.41
1:E:610:ARG:HD3	1:E:633:LEU:O	2.20	0.41
1:E:617:CYS:HB3	1:E:626:ALA:HB1	2.03	0.41
1:E:668:ARG:NE	1:E:694:SER:OG	2.54	0.41
2:F:753:PHE:HA	2:F:808:LYS:O	2.21	0.41
2:F:854:ILE:O	2:F:854:ILE:CG1	2.66	0.41
3:C:574:ARG:CD	3:C:575:PRO:HD3	2.51	0.41
3:C:668:ARG:HB2	3:C:668:ARG:CZ	2.51	0.41
3:C:675:ILE:HG23	3:C:676:ARG:NH2	2.36	0.41
3:C:693:LEU:HG	3:C:695:THR:HG23	2.03	0.41
3:C:757:GLU:HA	3:C:760:LYS:NZ	2.36	0.41
3:C:784:VAL:HA	3:C:787:LEU:CB	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:834:LEU:HA	3:C:834:LEU:HD23	1.82	0.41
3:C:859:LEU:HA	3:C:862:LEU:HB3	2.03	0.41
1:M:595:VAL:O	1:M:599:ILE:HG13	2.21	0.41
1:M:871:GLU:HA	1:M:876:HIS:NE2	2.36	0.41
1:M:925:GLN:HB3	1:M:950:ARG:NH2	2.29	0.41
1:M:945:ARG:O	1:M:948:VAL:HG22	2.20	0.41
1:A:1391:PHE:HE2	1:A:1422:LEU:HD13	1.86	0.41
1:A:1520:ARG:HG2	1:A:1523:GLN:OE1	2.21	0.41
1:A:1532:SER:OG	1:A:1532:SER:O	2.32	0.41
1:A:1620:ARG:HH22	1:J:1621:LYS:HB3	1.86	0.41
1:A:1621:LYS:O	1:A:1624:GLU:HG3	2.21	0.41
1:B:842:THR:C	1:B:844:GLU:H	2.29	0.41
1:B:943:LEU:O	1:B:947:LEU:HG	2.21	0.41
1:B:967:ARG:NH2	1:B:1000:LEU:HD11	2.36	0.41
1:B:995:PHE:HB3	1:B:1000:LEU:HB2	2.03	0.41
1:B:1166:GLU:O	1:B:1170:GLU:HG3	2.21	0.41
4:D:221:SER:O	4:D:222:LEU:HD22	2.21	0.41
4:O:139:TRP:CE2	4:O:143:GLN:HG3	2.56	0.41
1:J:1465:GLU:HA	1:J:1468:ASN:ND2	2.36	0.41
1:J:1475:GLU:OE1	4:I:147:VAL:HG13	2.20	0.41
1:K:1475:GLU:HG3	1:K:1502:HIS:CE1	2.56	0.41
1:K:1504:LEU:HD11	4:N:154:ASN:OD1	2.21	0.41
1:L:1056:ALA:O	1:L:1060:ILE:HG12	2.21	0.41
1:L:1073:ARG:HD2	1:L:1074:LYS:N	2.36	0.41
1:L:1199:GLN:HE22	1:L:1221:VAL:HG21	1.86	0.41
1:L:1251:ARG:O	1:L:1252:THR:C	2.61	0.41
1:L:1461:LYS:N	1:L:1461:LYS:HD2	2.36	0.41
1:H:702:PHE:HE2	1:H:711:LEU:N	2.18	0.41
1:H:747:ILE:HA	1:H:750:GLU:HB2	2.02	0.41
1:H:778:CYS:SG	1:H:783:PHE:HB2	2.61	0.41
1:E:8:ARG:O	1:E:327:VAL:HA	2.21	0.41
1:E:55:MET:HE2	1:E:55:MET:HB2	1.85	0.41
1:E:228:LEU:HD12	1:E:229:HIS:H	1.85	0.41
1:E:369:ASN:OD1	1:E:400:ARG:NH1	2.53	0.41
3:C:449:GLU:HA	3:C:452:LEU:HG	2.02	0.41
3:C:467:VAL:O	3:C:470:VAL:N	2.48	0.41
3:C:476:LEU:HB3	3:C:500:LYS:CE	2.51	0.41
3:C:514:TRP:HH2	3:C:533:ALA:N	2.19	0.41
3:C:712:PHE:HZ	3:C:735:ALA:HB2	1.86	0.41
3:C:755:ASP:O	3:C:759:VAL:HG23	2.21	0.41
3:C:760:LYS:HE2	3:C:783:PHE:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:828:VAL:HG13	3:C:829:ILE:N	2.36	0.41
1:M:948:VAL:O	1:M:949:ARG:NH1	2.47	0.41
1:M:961:LEU:HD11	1:M:964:ASN:HB2	2.03	0.41
1:A:1376:ILE:CA	1:A:1406:ARG:HH22	2.32	0.41
1:A:1401:VAL:O	1:A:1404:TYR:N	2.53	0.41
1:B:1022:ARG:N	1:B:1024:LEU:HD13	2.36	0.41
1:B:1126:ASP:OD1	1:B:1126:ASP:N	2.54	0.41
1:J:1478:GLN:H	1:J:1478:GLN:CD	2.26	0.41
1:K:1501:LYS:HA	1:K:1508:ARG:HH21	1.86	0.41
1:K:1592:MET:O	1:K:1596:MET:HG2	2.21	0.41
1:L:1114:ALA:O	1:L:1118:LYS:HE2	2.21	0.41
1:L:1434:ARG:HD2	1:L:1434:ARG:HA	1.71	0.41
1:H:752:ASN:HD21	1:H:780:ARG:HH21	1.69	0.41
1:E:14:GLN:NE2	1:E:16:GLN:HB2	2.36	0.40
1:E:111:TRP:HB2	1:E:121:LEU:HG	2.02	0.40
1:E:124:ASP:O	1:E:144:ARG:NH2	2.54	0.40
1:E:185:SER:N	1:E:190:VAL:O	2.36	0.40
1:E:362:GLU:HB3	1:E:366:ARG:HH21	1.86	0.40
1:E:511:THR:O	1:E:514:TRP:HB2	2.21	0.40
1:E:649:GLU:O	1:E:650:TRP:C	2.63	0.40
3:C:490:GLN:CD	3:C:504:TYR:HB3	2.46	0.40
3:C:511:THR:HG21	3:C:544:ALA:N	2.36	0.40
3:C:638:ARG:HA	3:C:641:VAL:HG22	2.02	0.40
3:C:828:VAL:HG13	3:C:829:ILE:HG12	2.03	0.40
3:C:859:LEU:HG	3:C:860:PRO:HD3	2.03	0.40
1:M:714:PHE:O	1:M:718:ILE:HG13	2.21	0.40
1:A:1412:LEU:HD23	1:A:1413:GLU:N	2.36	0.40
1:A:1470:LEU:O	1:A:1474:GLU:HB2	2.21	0.40
1:B:952:ASP:HB2	1:B:955:LEU:HB2	2.02	0.40
1:B:1227:LEU:HD12	1:B:1228:ALA:N	2.36	0.40
4:D:158:ASP:HB3	4:D:162:TYR:CZ	2.56	0.40
1:J:1475:GLU:HG2	1:J:1504:LEU:HD11	2.03	0.40
1:K:1558:LEU:HD21	1:K:1566:PHE:CD2	2.56	0.40
1:L:988:VAL:O	1:L:991:THR:OG1	2.23	0.40
1:H:649:GLU:OE1	1:H:649:GLU:N	2.54	0.40
1:E:1:MET:CE	2:F:896:GLY:O	2.64	0.40
1:E:34:SER:OG	1:E:75:PRO:O	2.13	0.40
1:E:82:LEU:C	1:E:88:LEU:HD12	2.46	0.40
1:E:86:LYS:NZ	1:E:106:ASP:HA	2.37	0.40
1:E:86:LYS:O	1:E:103:THR:HA	2.21	0.40
1:E:603:GLN:HB2	1:E:608:TYR:CE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:390:GLY:O	3:C:394:THR:HG23	2.21	0.40
3:C:514:TRP:CH2	3:C:517:LEU:HD22	2.56	0.40
3:C:726:ASP:HA	3:C:758:ARG:NH1	2.34	0.40
3:C:760:LYS:HA	3:C:763:LEU:CG	2.51	0.40
3:C:791:LEU:HD12	3:C:794:ASN:ND2	2.35	0.40
1:M:743:GLU:OE1	1:M:743:GLU:N	2.47	0.40
1:M:826:GLU:O	1:M:830:LYS:HG3	2.21	0.40
1:M:874:ALA:HA	1:M:877:ASN:HD21	1.85	0.40
1:A:1276:ILE:H	1:A:1276:ILE:HD12	1.86	0.40
1:A:1613:LEU:O	1:A:1617:GLU:HG3	2.20	0.40
1:B:1042:GLU:HA	1:B:1045:ASN:HD22	1.85	0.40
1:B:1085:LEU:HD13	1:B:1095:ALA:HB2	2.03	0.40
1:B:1177:LEU:CB	1:B:1186:LEU:HD22	2.51	0.40
1:B:1205:CYS:SG	1:B:1213:ALA:HB3	2.61	0.40
1:B:1251:ARG:O	1:B:1254:LYS:HG2	2.21	0.40
1:J:1563:ARG:HA	1:J:1566:PHE:HB2	2.02	0.40
1:L:967:ARG:O	1:L:971:ILE:HG12	2.21	0.40
1:L:1160:ALA:HA	1:L:1163:LYS:HD3	2.03	0.40
1:L:1183:LEU:HD12	1:L:1183:LEU:H	1.85	0.40
1:L:1282:GLU:O	1:L:1283:LEU:C	2.63	0.40
1:L:1363:PHE:O	1:L:1366:ASP:HB3	2.21	0.40
1:E:257:GLN:HG2	1:E:258:ASN:ND2	2.36	0.40
1:E:365:ALA:O	1:E:369:ASN:ND2	2.54	0.40
1:E:540:GLU:O	1:E:574:ARG:HD2	2.21	0.40
1:E:585:LEU:HA	1:E:588:ASN:HB2	2.03	0.40
1:E:598:ALA:O	1:E:602:ASN:N	2.54	0.40
1:E:682:CYS:O	1:E:686:ALA:HB3	2.20	0.40
3:C:529:GLY:H	3:C:561:GLN:CG	2.32	0.40
3:C:726:ASP:CA	3:C:758:ARG:HH12	2.33	0.40
3:C:758:ARG:HA	3:C:761:ASN:HB3	2.02	0.40
3:C:853:ASN:HB2	3:C:854:ARG:CZ	2.52	0.40
3:C:854:ARG:HA	3:C:856:LYS:HZ3	1.85	0.40
1:M:580:LEU:O	1:M:584:LEU:HG	2.21	0.40
1:M:944:SER:O	1:M:948:VAL:HG13	2.21	0.40
1:M:1008:LEU:O	1:M:1012:VAL:HG13	2.22	0.40
1:A:1290:TYR:CA	1:A:1295:TYR:HB2	2.51	0.40
1:A:1345:ILE:HG13	1:A:1368:TYR:OH	2.21	0.40
1:A:1350:ARG:HA	1:A:1353:GLU:HG3	2.02	0.40
1:A:1404:TYR:O	1:A:1408:ILE:HG12	2.21	0.40
1:A:1535:LYS:HG2	1:A:1538:MET:HB2	2.04	0.40
1:A:1587:TRP:C	1:A:1590:ASN:H	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:979:LEU:HD12	1:B:979:LEU:H	1.87	0.40
1:B:1113:LYS:HA	1:B:1113:LYS:HD2	1.75	0.40
4:D:139:TRP:HA	4:D:142:ARG:NH1	2.36	0.40
1:J:1515:PHE:CD2	1:J:1523:GLN:HG3	2.57	0.40
1:K:1574:TYR:O	1:K:1577:LEU:HG	2.21	0.40
1:K:1582:VAL:HG11	1:K:1598:TYR:CD2	2.56	0.40
1:K:1604:LYS:HA	1:K:1607:LEU:HB3	2.03	0.40
1:L:1025:GLN:HG2	1:L:1050:TYR:HB3	2.04	0.40
1:L:1199:GLN:HE21	1:L:1223:ASN:ND2	2.08	0.40
1:L:1327:PHE:C	1:L:1329:PRO:HD3	2.47	0.40
1:L:1405:TYR:O	1:L:1408:ILE:HB	2.22	0.40
1:H:674:ASN:HA	1:H:678:ASN:OD1	2.21	0.40
1:H:708:PHE:CE2	1:H:709:GLU:HG2	2.56	0.40
4:I:218:VAL:O	4:I:223:LYS:HB3	2.22	0.40
1:E:83:LYS:HB2	1:E:111:TRP:CZ2	2.56	0.40
1:E:108:VAL:HG22	1:E:128:TYR:OH	2.21	0.40
1:E:578:GLY:HA2	1:E:581:GLN:OE1	2.22	0.40
1:E:664:LEU:O	1:E:665:GLU:C	2.64	0.40
3:C:471:ASP:OD2	3:C:474:LEU:N	2.32	0.40
3:C:479:TYR:HB2	3:C:489:ILE:CG1	2.52	0.40
3:C:533:ALA:HB3	3:C:565:PHE:CD2	2.56	0.40
3:C:755:ASP:HB3	3:C:758:ARG:HD3	2.03	0.40
3:C:772:LEU:N	3:C:772:LEU:HD23	2.36	0.40
1:M:573:ASN:OD1	1:M:603:GLN:NE2	2.55	0.40
1:M:671:LEU:HD12	1:M:674:ASN:HD22	1.86	0.40
1:M:692:GLN:HG2	1:M:693:LEU:N	2.37	0.40
1:M:939:LEU:HD21	1:M:941:LYS:HB3	2.04	0.40
1:A:1250:THR:H	1:A:1250:THR:HG23	1.68	0.40
1:A:1293:ARG:HB3	1:A:1295:TYR:CZ	2.57	0.40
1:A:1294:GLY:HA2	1:A:1296:PHE:CE2	2.56	0.40
1:A:1432:HIS:O	1:A:1436:VAL:HG13	2.22	0.40
1:A:1554:LEU:HD23	1:A:1566:PHE:HE1	1.85	0.40
1:B:1248:ASN:HA	1:B:1275:HIS:CE1	2.56	0.40
4:D:111:ARG:O	4:D:115:GLN:HG2	2.22	0.40
1:J:1580:ASP:OD1	1:J:1580:ASP:N	2.55	0.40
1:L:1262:ASP:OD2	1:L:1289:TYR:OH	2.40	0.40
1:H:709:GLU:HA	1:H:712:PHE:HB3	2.03	0.40
4:N:148:GLU:HA	4:N:151:LYS:HE2	2.04	0.40
1:E:153:ILE:HA	1:E:168:THR:O	2.21	0.40
1:E:272:VAL:HA	1:E:287:LEU:H	1.87	0.40
1:E:436:CYS:SG	1:E:463:LEU:HD22	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:439:VAL:HG23	3:C:444:ARG:CD	2.51	0.40
3:C:468:LYS:HA	3:C:471:ASP:C	2.47	0.40
3:C:556:TYR:HB3	3:C:558:LEU:CD1	2.39	0.40
3:C:576:SER:HG	3:C:607:HIS:CE1	2.24	0.40
3:C:758:ARG:HG2	3:C:759:VAL:N	2.37	0.40
1:A:1379:MET:HG3	1:A:1406:ARG:NH2	2.36	0.40
1:B:901:ASP:OD2	1:B:903:ARG:HB2	2.22	0.40
1:B:968:ARG:O	1:B:971:ILE:HG12	2.21	0.40
4:D:104:ARG:O	4:D:107:ARG:HG2	2.22	0.40
4:D:129:ARG:O	4:D:133:LYS:HG3	2.21	0.40
1:L:1262:ASP:O	1:L:1264:LYS:HE2	2.21	0.40
1:L:1387:LYS:HB3	1:L:1390:GLN:OE1	2.22	0.40
1:L:1434:ARG:NH1	1:L:1437:ASN:HB2	2.36	0.40
1:H:723:GLN:HA	1:H:753:CYS:SG	2.61	0.40
1:H:796:LEU:HD23	1:H:796:LEU:HA	1.84	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	377/1630 (23%)	328 (87%)	49 (13%)	0	100	100
1	B	466/1630 (29%)	398 (85%)	67 (14%)	1 (0%)	43	78
1	E	724/1630 (44%)	610 (84%)	114 (16%)	0	100	100
1	H	234/1630 (14%)	204 (87%)	29 (12%)	1 (0%)	30	67
1	J	163/1630 (10%)	145 (89%)	18 (11%)	0	100	100
1	K	255/1630 (16%)	229 (90%)	25 (10%)	1 (0%)	30	67
1	L	546/1630 (34%)	466 (85%)	80 (15%)	0	100	100
1	M	516/1630 (32%)	433 (84%)	83 (16%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	F	231/233 (99%)	228 (99%)	3 (1%)	0	100	100
3	C	508/1630 (31%)	424 (84%)	82 (16%)	2 (0%)	30	67
4	D	100/229 (44%)	91 (91%)	9 (9%)	0	100	100
4	I	54/229 (24%)	50 (93%)	4 (7%)	0	100	100
4	N	76/229 (33%)	71 (93%)	5 (7%)	0	100	100
4	O	57/229 (25%)	53 (93%)	4 (7%)	0	100	100
All	All	4307/15819 (27%)	3730 (87%)	572 (13%)	5 (0%)	49	83

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	674	ASN
1	K	1594	PHE
3	C	438	PRO
1	B	855	LEU
1	H	773	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	342/1437 (24%)	341 (100%)	1 (0%)	86	86
1	B	407/1437 (28%)	406 (100%)	1 (0%)	87	87
1	E	629/1437 (44%)	624 (99%)	5 (1%)	73	80
1	H	219/1437 (15%)	219 (100%)	0	100	100
1	J	150/1437 (10%)	150 (100%)	0	100	100
1	K	236/1437 (16%)	236 (100%)	0	100	100
1	L	482/1437 (34%)	482 (100%)	0	100	100
1	M	471/1437 (33%)	469 (100%)	2 (0%)	84	84
2	F	204/209 (98%)	195 (96%)	9 (4%)	25	47

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	C	457/1437 (32%)	438 (96%)	19 (4%)	26	48
4	D	96/184 (52%)	96 (100%)	0	100	100
4	I	53/184 (29%)	53 (100%)	0	100	100
4	N	74/184 (40%)	74 (100%)	0	100	100
4	O	55/184 (30%)	55 (100%)	0	100	100
All	All	3875/13878 (28%)	3838 (99%)	37 (1%)	65	78

All (37) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	E	128	TYR
1	E	501	ILE
1	E	551	ASP
1	E	662	ASP
1	E	678	ASN
2	F	749	HIS
2	F	777	MET
2	F	835	GLN
2	F	854	ILE
2	F	869	GLN
2	F	876	ILE
2	F	879	ARG
2	F	891	LEU
2	F	899	ILE
3	C	404	VAL
3	C	457	LEU
3	C	467	VAL
3	C	495	THR
3	C	513	ASP
3	C	517	LEU
3	C	664	LEU
3	C	674	ASN
3	C	679	LEU
3	C	681	ILE
3	C	693	LEU
3	C	754	TYR
3	C	761	ASN
3	C	779	ASP
3	C	783	PHE
3	C	786	ASP

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Mol	Chain	Res	Type
3	C	808	ASN
3	C	812	LEU
3	C	819	LEU
1	M	843	ASP
1	M	927	ASP
1	A	1393	ASP
1	B	812	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (121) such sidechains are listed below:

Mol	Chain	Res	Type
1	E	14	GLN
1	E	24	ASN
1	E	102	HIS
1	E	192	GLN
1	E	229	HIS
1	E	240	ASN
1	E	258	ASN
1	E	340	ASN
1	E	344	ASN
1	E	490	GLN
1	E	520	ASN
1	E	531	GLN
1	E	560	GLN
1	E	602	ASN
1	E	603	GLN
1	E	607	HIS
1	E	653	ASN
1	E	674	ASN
1	E	678	ASN
1	E	720	ASN
2	F	802	ASN
2	F	853	GLN
2	F	869	GLN
3	C	426	GLN
3	C	538	GLN
3	C	548	GLN
3	C	572	ASN
3	C	603	GLN
3	C	677	GLN
3	C	771	GLN
3	C	785	HIS

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Mol	Chain	Res	Type
3	C	808	ASN
3	C	831	ASN
3	C	853	ASN
1	M	588	ASN
1	M	591	HIS
1	M	642	HIS
1	M	653	ASN
1	M	684	GLN
1	M	720	ASN
1	M	723	GLN
1	M	740	GLN
1	M	761	ASN
1	M	805	GLN
1	M	808	ASN
1	M	888	ASN
1	M	1057	ASN
1	A	1248	ASN
1	A	1275	HIS
1	A	1313	HIS
1	A	1356	HIS
1	A	1373	ASN
1	A	1381	HIS
1	A	1437	ASN
1	A	1460	ASN
1	A	1469	ASN
1	A	1492	ASN
1	A	1601	GLN
1	B	831	ASN
1	B	853	ASN
1	B	888	ASN
1	B	889	ASN
1	B	932	ASN
1	B	935	ASN
1	B	937	ASN
1	B	983	GLN
1	B	1045	ASN
1	B	1057	ASN
1	B	1110	GLN
1	B	1115	GLN
1	B	1117	GLN
1	B	1219	ASN
1	B	1233	HIS

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Mol	Chain	Res	Type
1	B	1238	GLN
1	B	1248	ASN
4	D	126	GLN
4	D	143	GLN
4	D	150	ASN
4	D	202	ASN
4	O	146	GLN
1	J	1469	ASN
1	J	1492	ASN
1	J	1555	GLN
1	J	1601	GLN
1	J	1625	GLN
1	K	1373	ASN
1	K	1409	GLN
1	K	1437	ASN
1	K	1502	HIS
1	K	1559	GLN
1	K	1589	HIS
1	K	1601	GLN
1	K	1625	GLN
1	L	937	ASN
1	L	973	GLN
1	L	976	GLN
1	L	1026	ASN
1	L	1057	ASN
1	L	1088	HIS
1	L	1110	GLN
1	L	1149	ASN
1	L	1181	ASN
1	L	1199	GLN
1	L	1220	ASN
1	L	1238	GLN
1	L	1248	ASN
1	L	1270	GLN
1	L	1275	HIS
1	L	1291	GLN
1	L	1313	HIS
1	L	1420	ASN
1	L	1468	ASN
1	H	677	GLN
1	H	684	GLN
1	H	690	HIS

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Mol	Chain	Res	Type
1	H	761	ASN
1	H	795	ASN
1	H	831	ASN
4	I	150	ASN
4	I	154	ASN
4	N	150	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
3	C	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	870:CYS	C	871:THR	N	7.18

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	659:SER	C	660:VAL	N	3.20

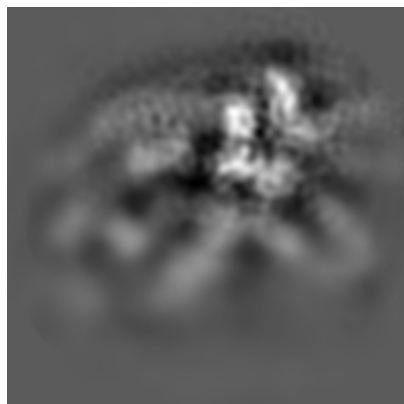
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10754. These allow visual inspection of the internal detail of the map and identification of artifacts.

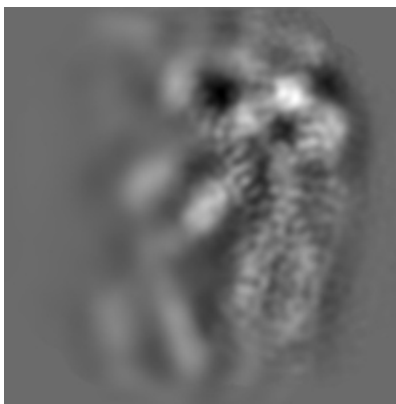
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

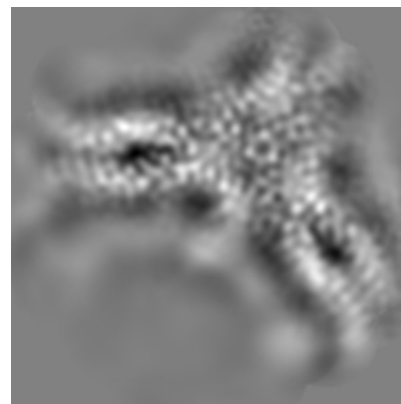
6.1.1 Primary map



X

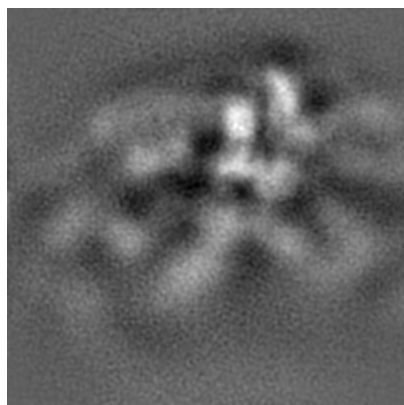


Y

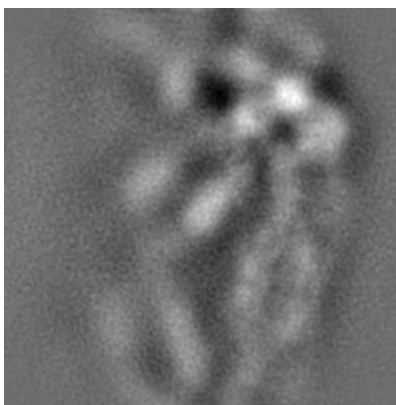


Z

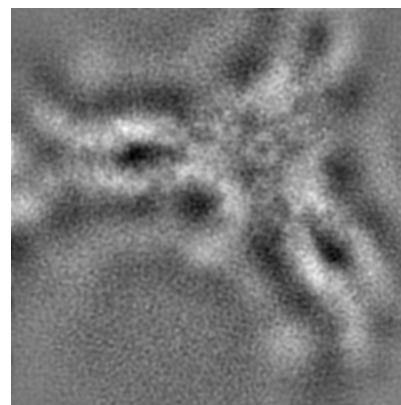
6.1.2 Raw map



X



Y

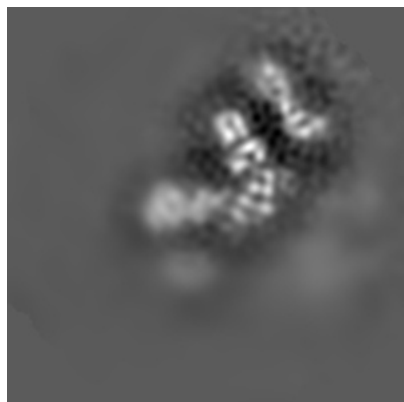


Z

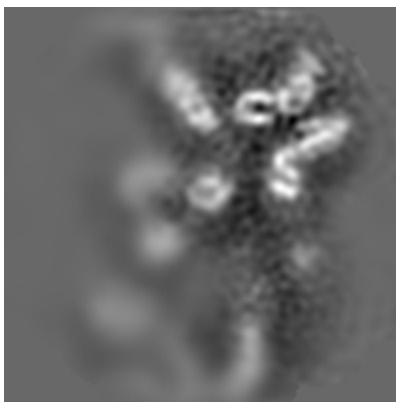
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

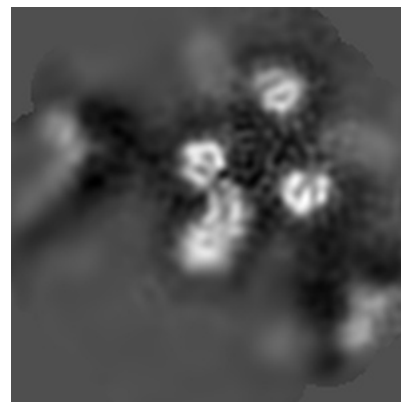
6.2.1 Primary map



X Index: 80

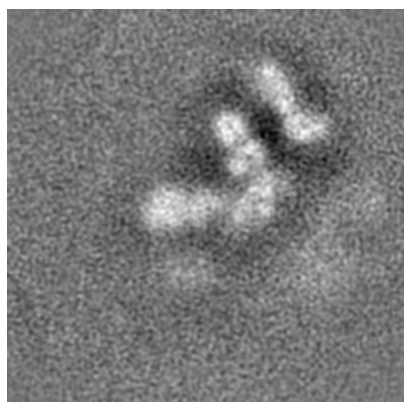


Y Index: 80



Z Index: 80

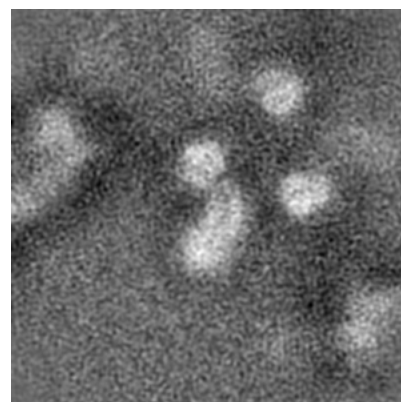
6.2.2 Raw map



X Index: 80



Y Index: 80

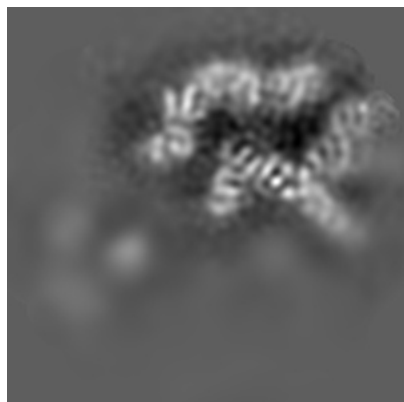


Z Index: 80

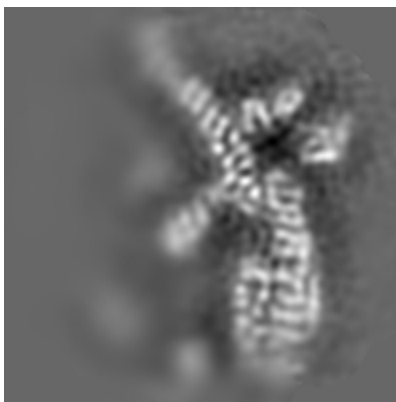
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

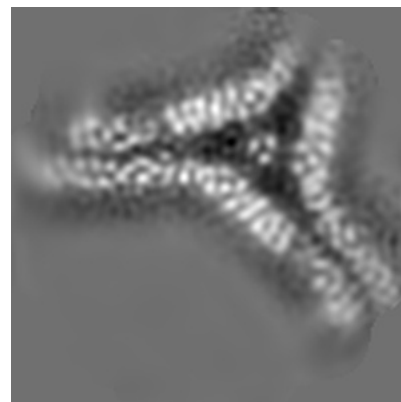
6.3.1 Primary map



X Index: 110

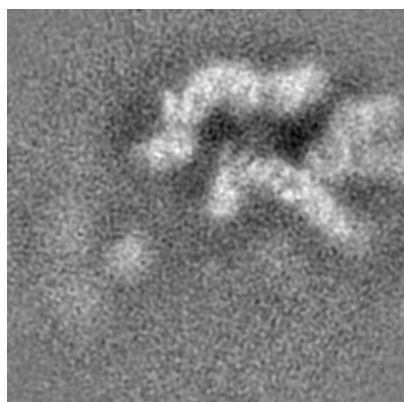


Y Index: 90



Z Index: 110

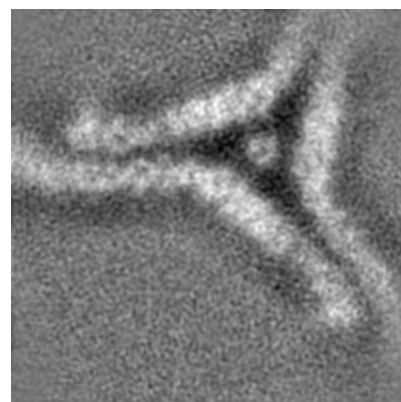
6.3.2 Raw map



X Index: 110



Y Index: 90

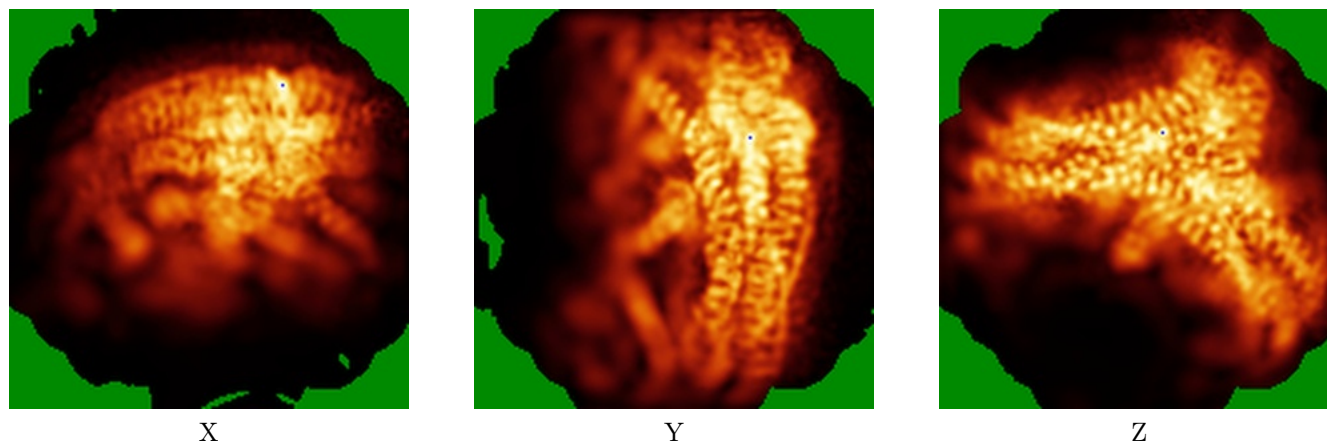


Z Index: 111

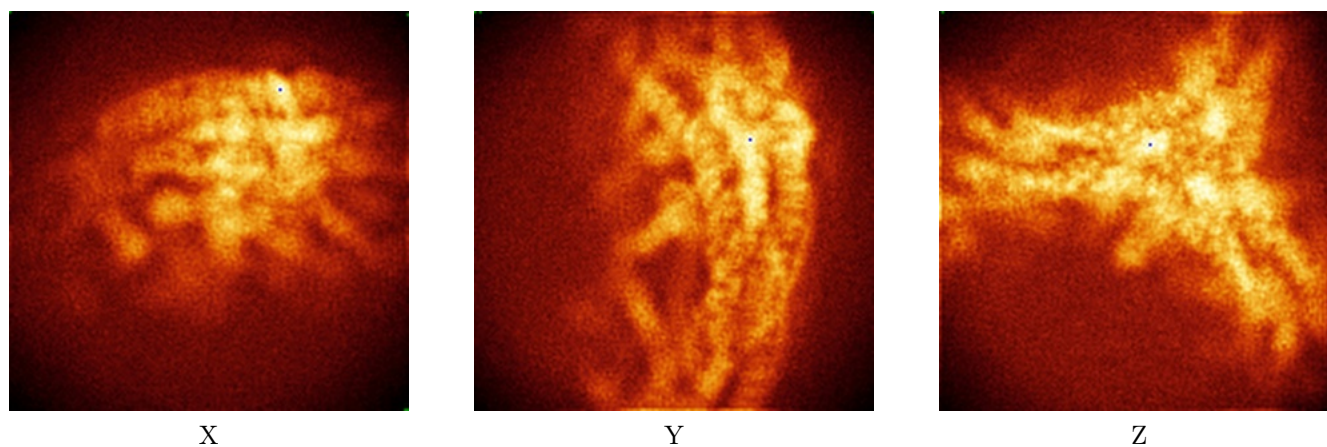
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



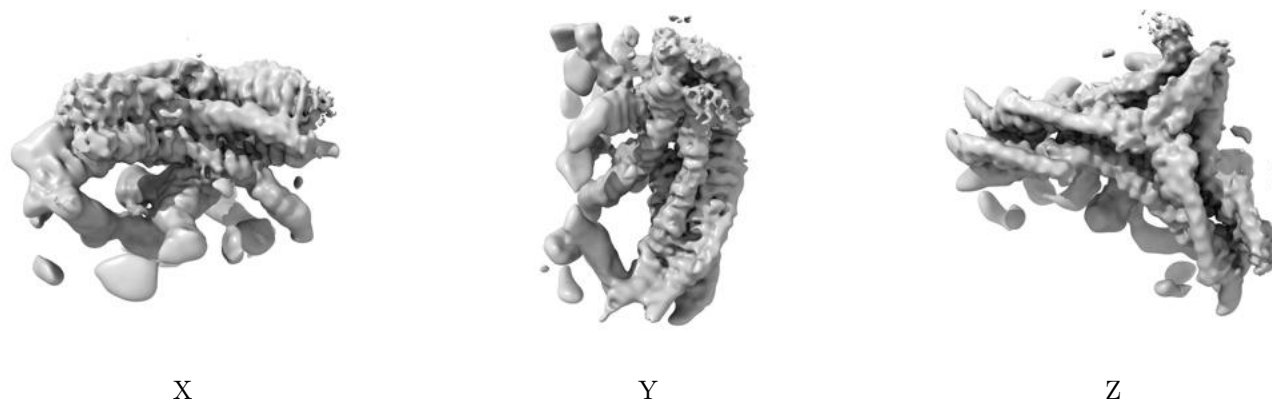
6.4.2 Raw map



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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.07. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

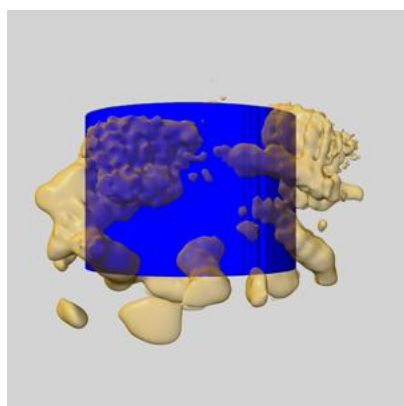
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

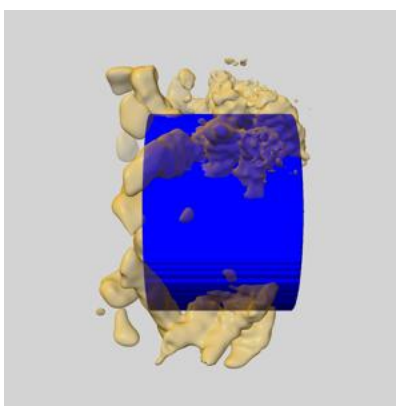
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

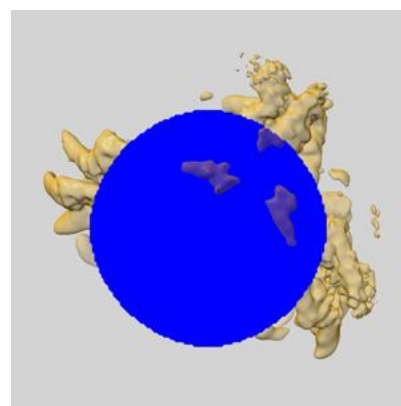
6.6.1 emd_10754_msk_1.map [i](#)



X



Y

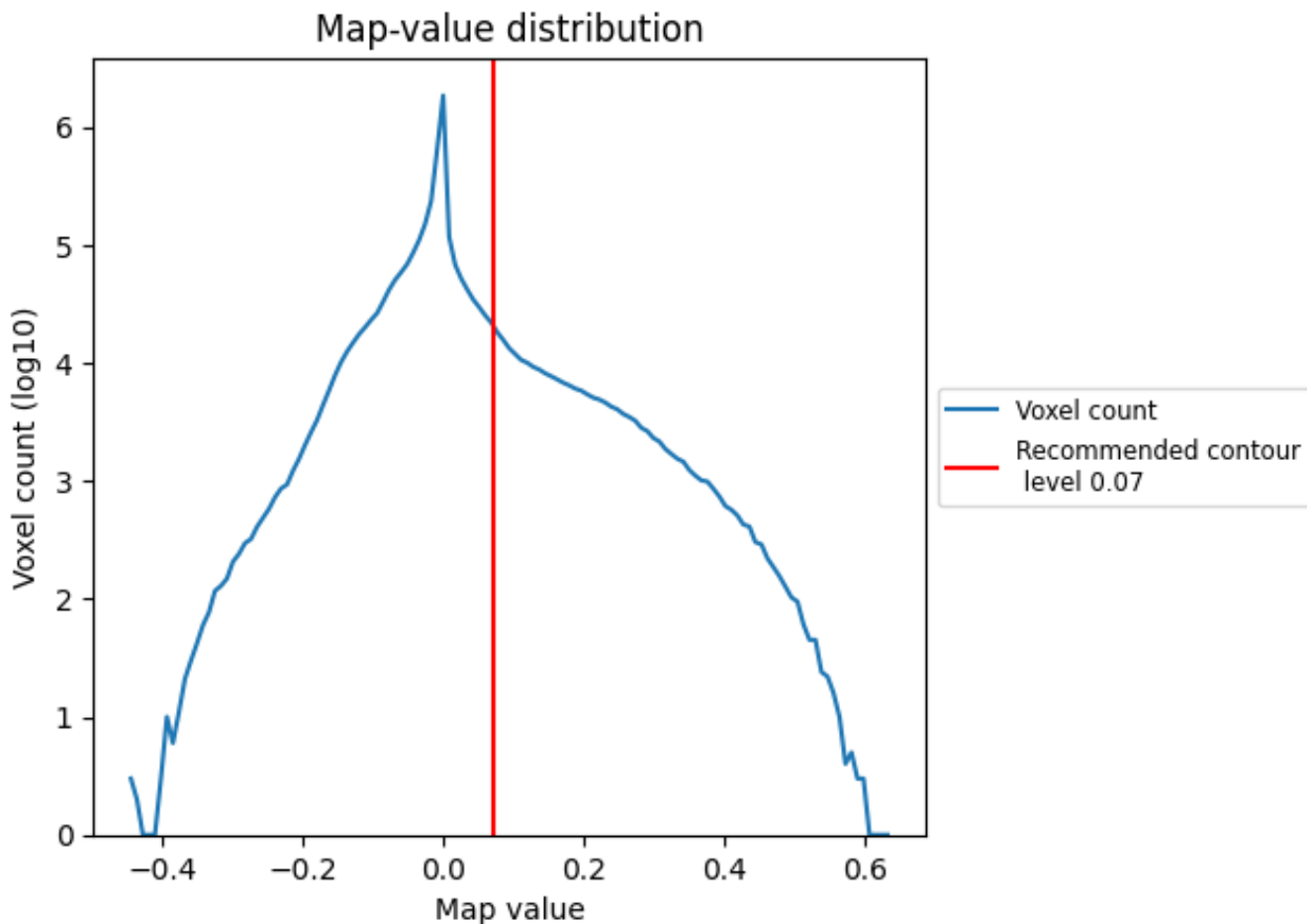


Z

7 Map analysis [i](#)

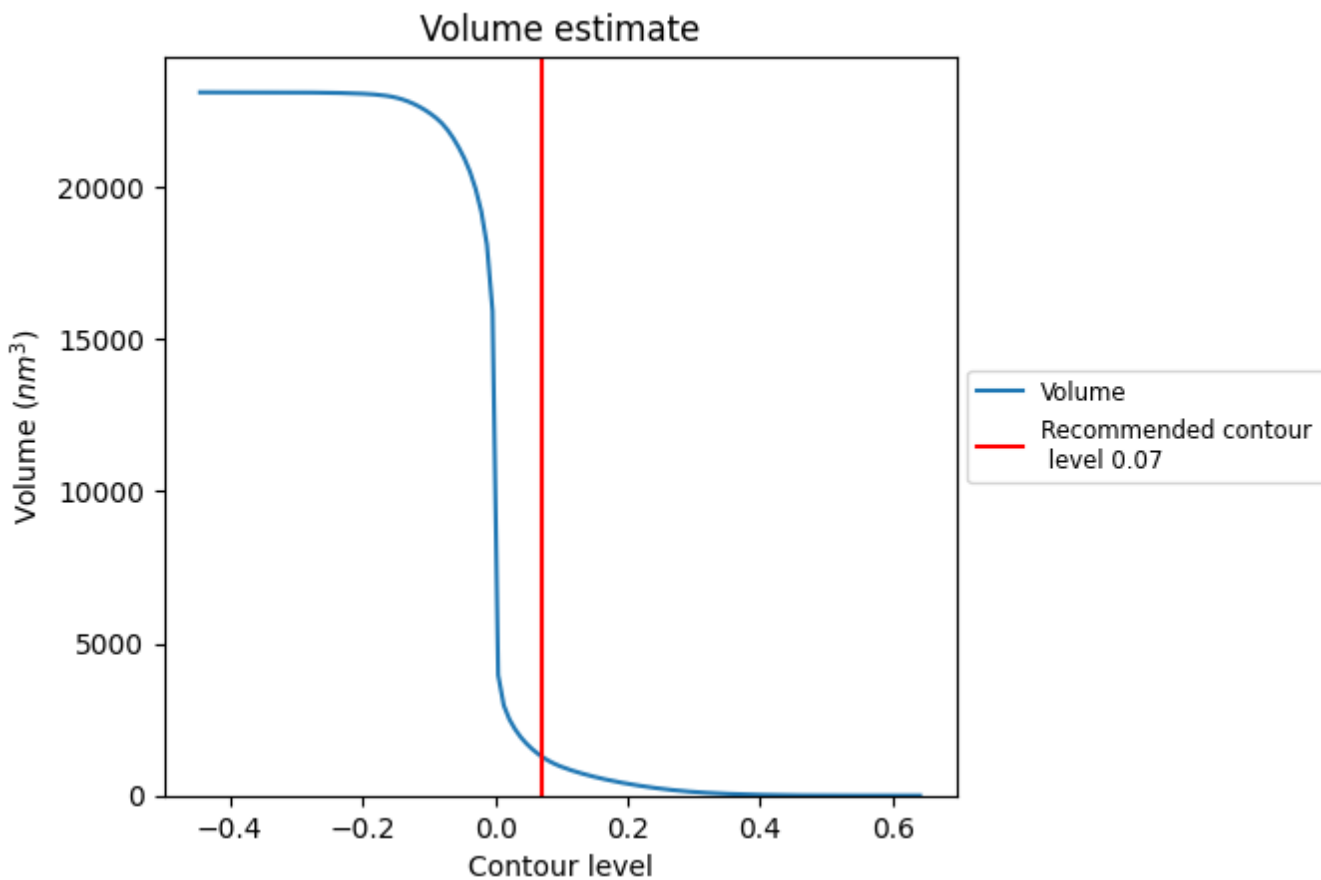
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

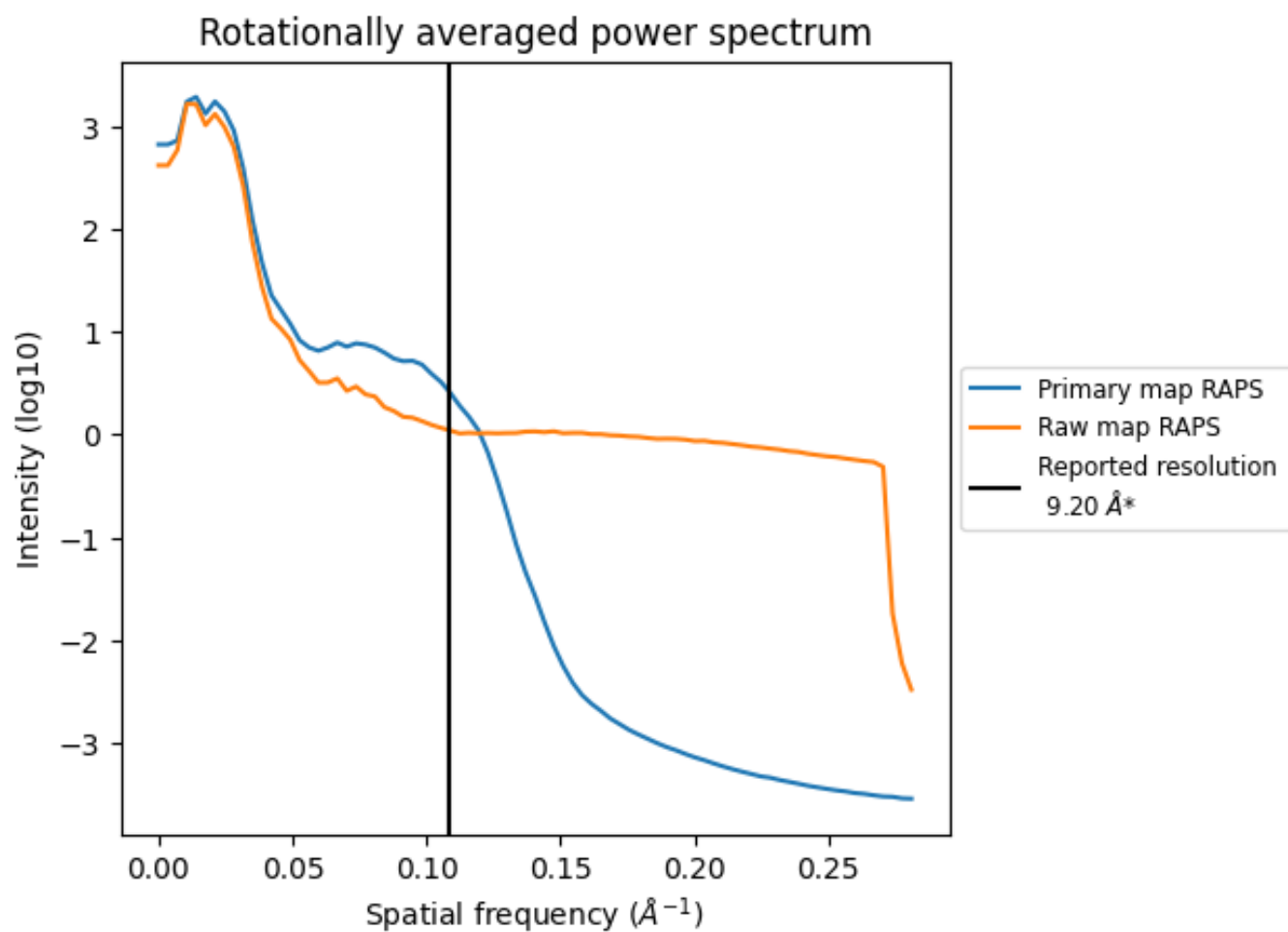
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1289 nm^3 ; this corresponds to an approximate mass of 1164 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)

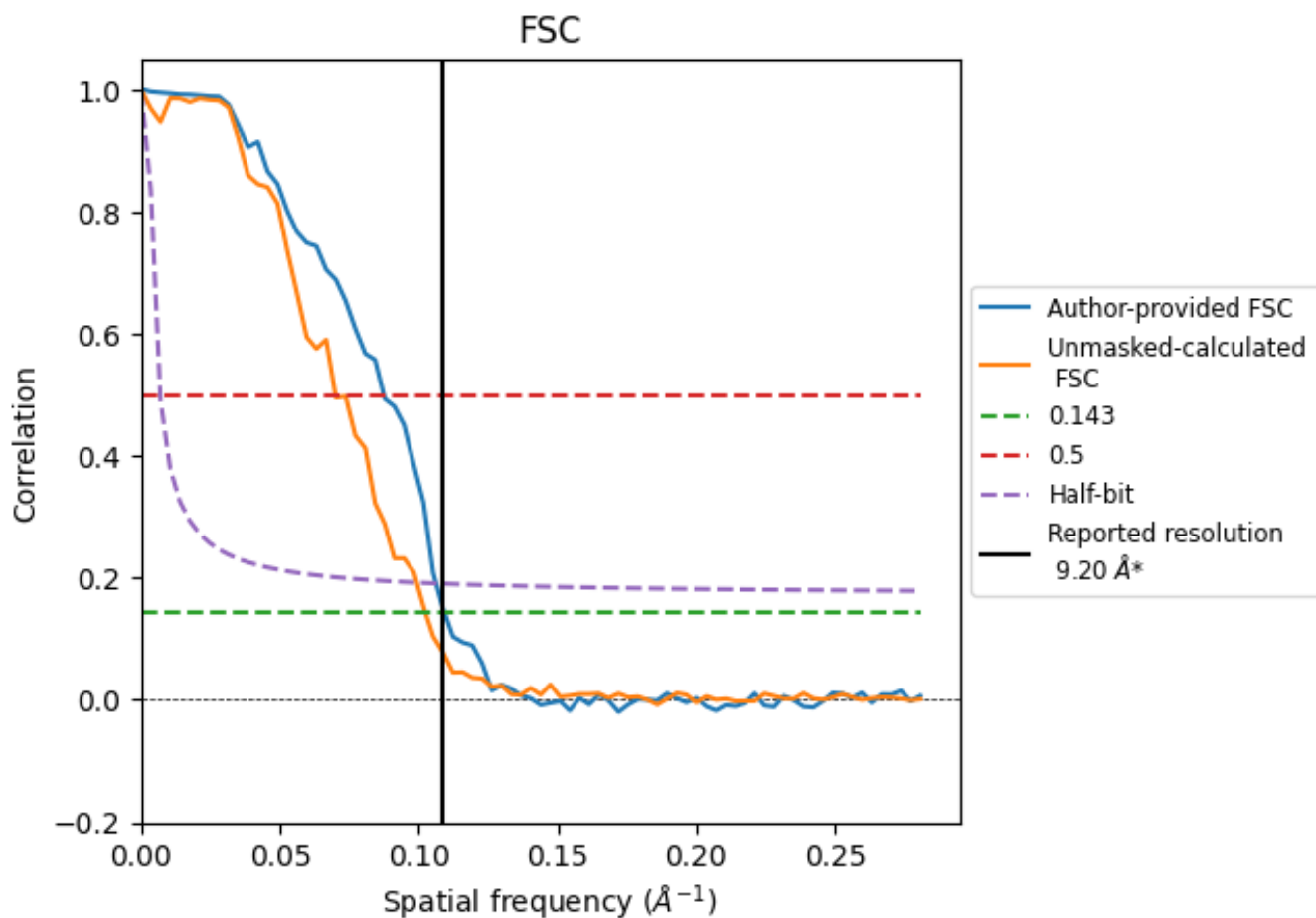


*Reported resolution corresponds to spatial frequency of 0.109 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.109 Å⁻¹

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.20	-	-
Author-provided FSC curve	9.14	11.44	9.40
Unmasked-calculated*	9.76	14.27	10.06

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

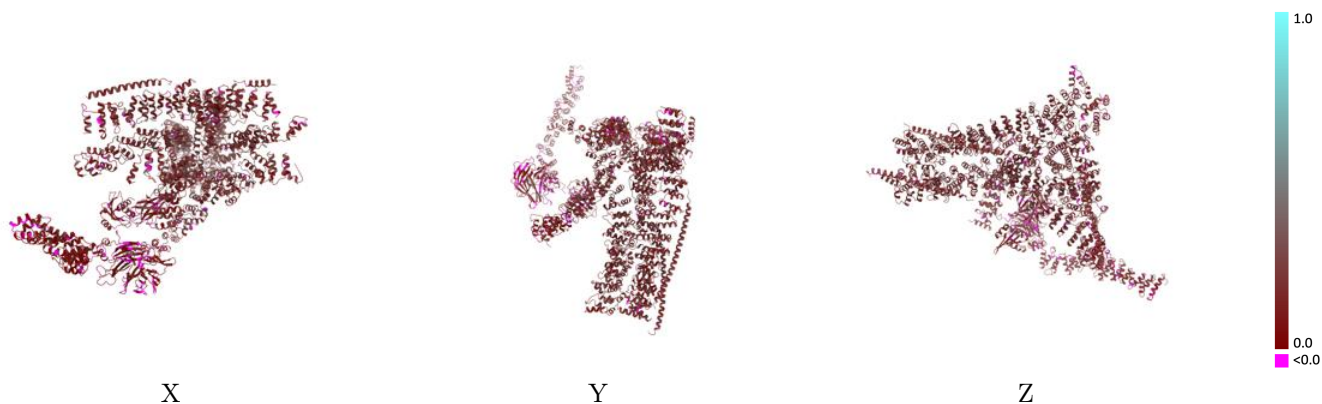
This section contains information regarding the fit between EMDB map EMD-10754 and PDB model 6YAI. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay [i](#)



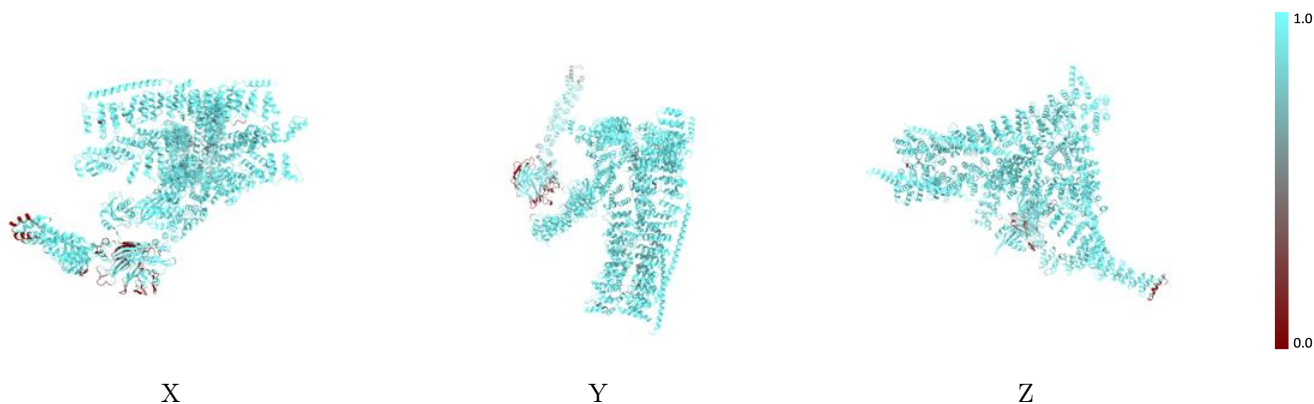
The images above show the 3D surface view of the map at the recommended contour level 0.07 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



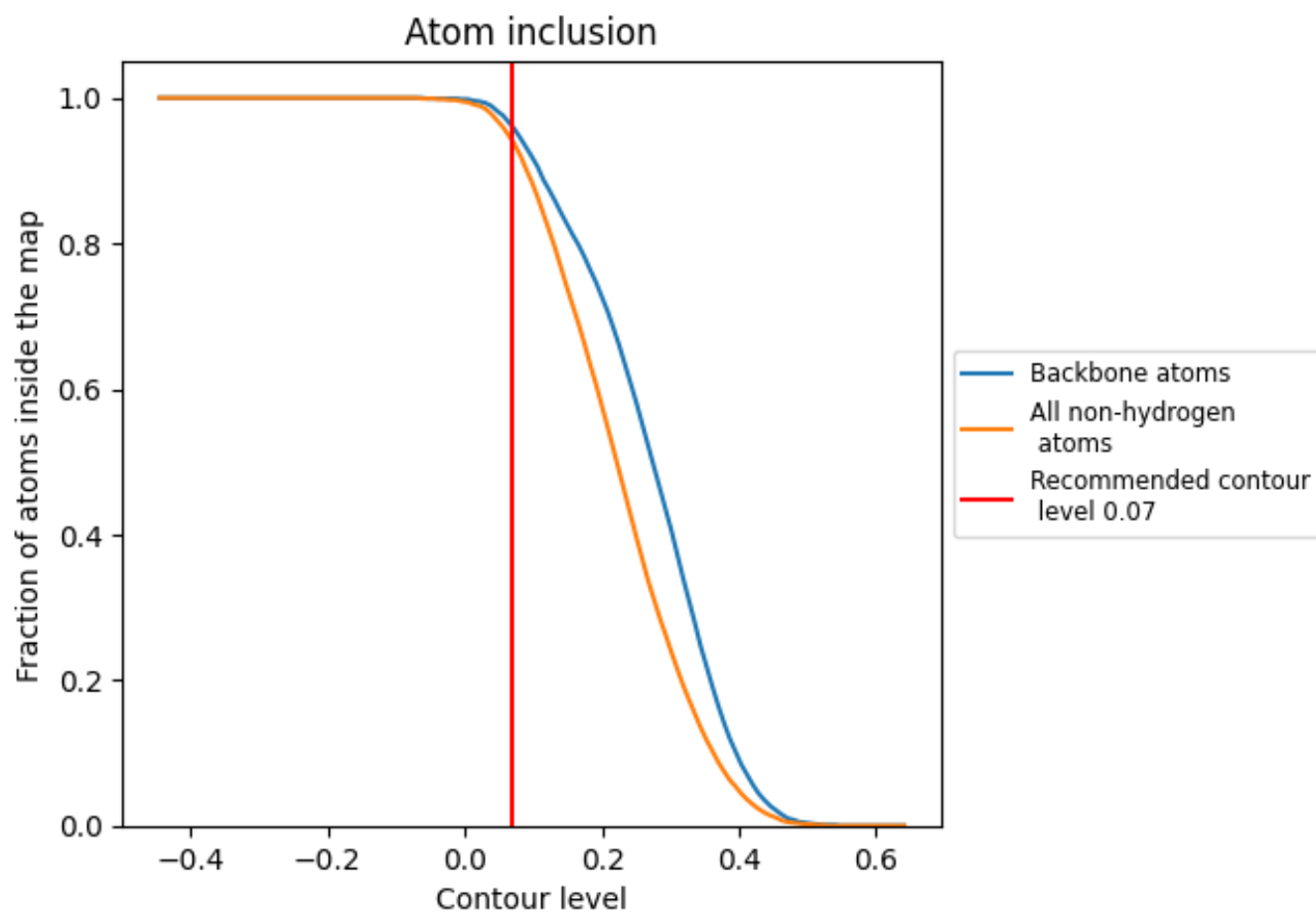
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.07).































9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 94% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.07) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9400	 0.1710
A	 0.9630	 0.2040
B	 0.9770	 0.2040
C	 0.9820	 0.1750
D	 0.9720	 0.2210
E	 0.7610	 0.0710
F	 0.9780	 0.1190
H	 0.9570	 0.1940
I	 0.9440	 0.2100
J	 0.9790	 0.1790
K	 0.9660	 0.1740
L	 0.9820	 0.1980
M	 0.9780	 0.2010
N	 0.9690	 0.1920
O	 0.9980	 0.2210

