



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 05:49 AM UTC

PDB ID : 8RUY / pdb_00008ruy
EMDB ID : EMD-19515
Title : Structure of IFTA and IFTB in Retrograde Intraflagellar transport trains
Authors : Lacey, S.; Pigino, G.
Deposited on : 2024-01-31
Resolution : 15.40 Å(reported)

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:

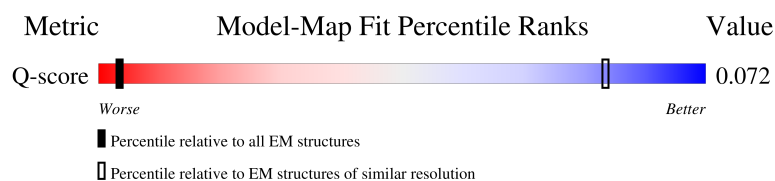
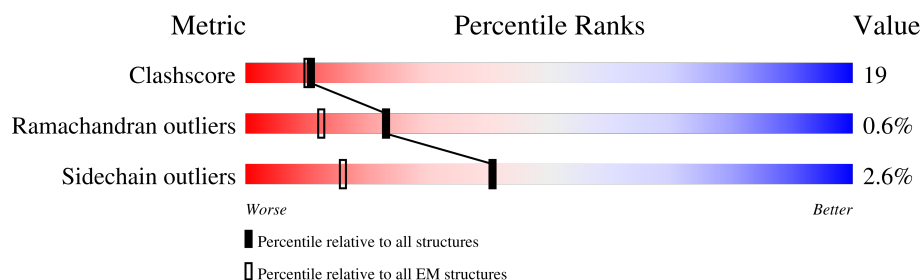
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 15.40 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	36 (14.90 - 15.90)

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	1367	16% 63% 36% .
2	B	1409	21% 60% 36% ..
3	H	454	19% 52% 43% 5%
3	h	454	13% 54% 40% ...

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Mol	Chain	Length	Quality of chain
4	J	765	
4	j	765	
5	K	510	
5	k	510	
6	L	135	
6	l	135	
7	N	443	
7	n	443	
8	O	641	
9	P	683	
10	Q	204	
11	R	189	
12	S	344	
12	s	344	
13	T	192	
14	I	1755	
14	i	1755	
15	C	1239	
16	D	1224	
17	E	1355	
18	F	782	
18	f	782	
19	G	647	
19	g	647	
20	M	469	

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Mol	Chain	Length	Quality of chain
20	m	469	24%43%21%•34%

2 Entry composition [i](#)

There are 20 unique types of molecules in this entry. The entry contains 139391 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 Intraflagellar transport protein 144.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1367	Total	C	N	O	S	0	0
			10579	6654	1857	1998	70		

- Molecule 2 is a protein called Intraflagellar transport particle protein 140.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1374	Total	C	N	O	S	0	0
			10764	6763	1893	2029	79		

- Molecule 3 is a protein called Osm-6-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	H	454	Total	C	N	O	S	0	0
			3553	2269	591	680	13		
3	h	440	Total	C	N	O	S	0	0
			3443	2199	574	657	13		

- Molecule 4 is a protein called Intraflagellar transport protein 80.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	J	765	Total	C	N	O	S	0	0
			6025	3807	1053	1132	33		
4	j	765	Total	C	N	O	S	0	0
			6025	3807	1053	1132	33		

- Molecule 5 is a protein called IFT54.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	K	106	Total	C	N	O	S	0	0
			849	524	155	164	6		
5	k	106	Total	C	N	O	S	0	0
			849	524	155	164	6		

- Molecule 6 is a protein called Intraflagellar transport particle protein IFT20.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L	114	Total	C	N	O	S	0	0
			919	562	166	187	4		
6	l	114	Total	C	N	O	S	0	0
			919	562	166	187	4		

- Molecule 7 is a protein called Clusterin-associated protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	N	303	Total	C	N	O	S	0	0
			2472	1547	439	476	10		
7	n	303	Total	C	N	O	S	0	0
			2472	1547	439	476	10		

- Molecule 8 is a protein called Intraflagellar transport protein 74.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	O	299	Total	C	N	O	S	0	0
			2411	1485	437	474	15		

- Molecule 9 is a protein called Intraflagellar transport protein 81.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	P	306	Total	C	N	O	S	0	0
			2439	1512	436	482	9		

- Molecule 10 is a protein called Intraflagellar transport protein 27.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Q	204	Total	C	N	O	S	0	0
			1602	1025	262	307	8		

- Molecule 11 is a protein called Intraflagellar transport protein 25.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	R	136	Total	C	N	O	S	0	0
			1086	681	190	208	7		

- Molecule 12 is a protein called Intraflagellar transport protein 46.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	S	133	Total	C	N	O	S	0	0
			1045	666	172	197	10		
12	s	141	Total	C	N	O	S	0	0
			1138	727	190	213	8		

- Molecule 13 is a protein called Intraflagellar transport protein 22.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	T	192	Total	C	N	O	S	0	0
			1500	946	261	285	8		

- Molecule 14 is a protein called Intraflagellar transport protein 172.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	i	1755	Total	C	N	O	S	0	0
			13906	8752	2439	2639	76		
14	I	1714	Total	C	N	O	S	0	0
			13615	8578	2384	2577	76		

- Molecule 15 is a protein called Intraflagellar transport protein 122 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	C	1210	Total	C	N	O	S	0	0
			9609	6108	1671	1773	57		

- Molecule 16 is a protein called Intraflagellar transport protein 121.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	D	1027	Total	C	N	O	S	0	0
			8154	5184	1401	1509	60		

- Molecule 17 is a protein called Intraflagellar transport protein 139.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	E	1325	Total	C	N	O	S	0	0
			10464	6587	1860	1956	61		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	188	GLN	GLU	variant	UNP A9XPA6

- Molecule 18 is a protein called IFT88.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	F	539	Total	C	N	O	S	0	0
			4337	2747	762	795	33		
18	f	538	Total	C	N	O	S	0	0
			4328	2741	760	794	33		

- Molecule 19 is a protein called IFT70.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	G	619	Total	C	N	O	S	0	0
			4978	3171	826	948	33		
19	g	619	Total	C	N	O	S	0	0
			4978	3171	826	948	33		

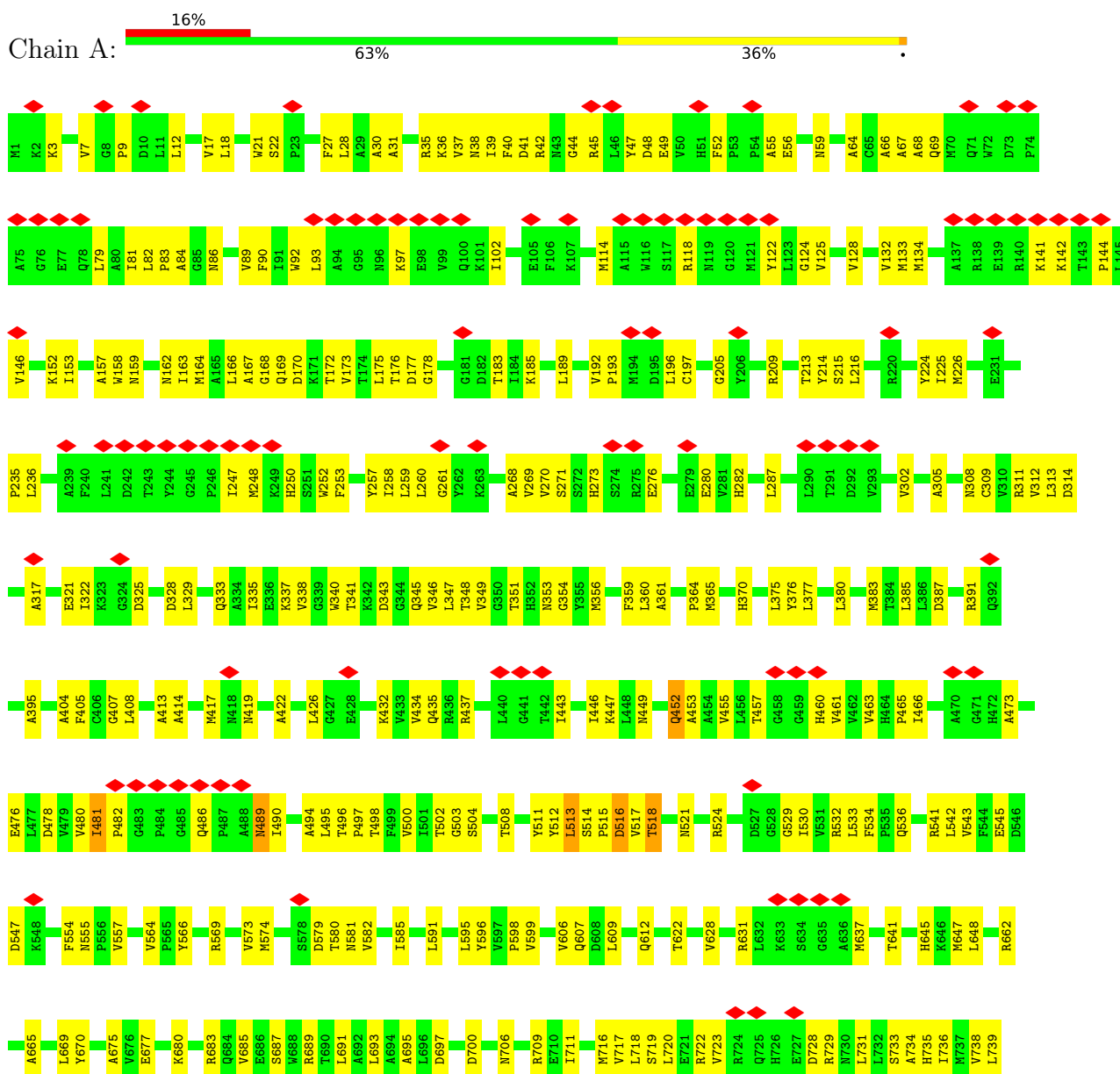
- Molecule 20 is a protein called Intraflagellar transport protein 57.

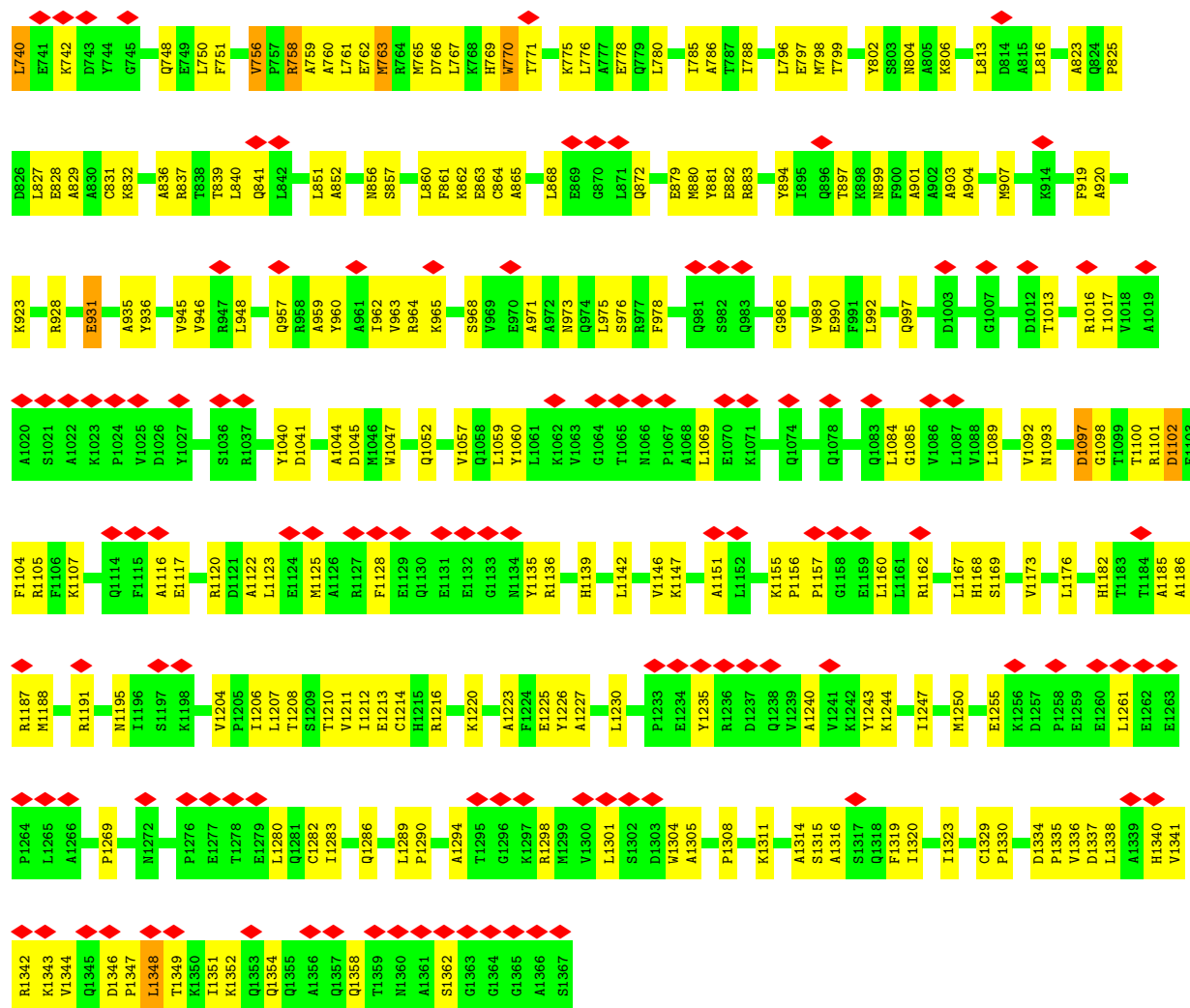
Mol	Chain	Residues	Atoms					AltConf	Trace
20	M	309	Total	C	N	O	S	0	0
			2466	1552	438	466	10		
20	m	309	Total	C	N	O	S	0	0
			2466	1552	438	466	10		

3 Residue-property plots

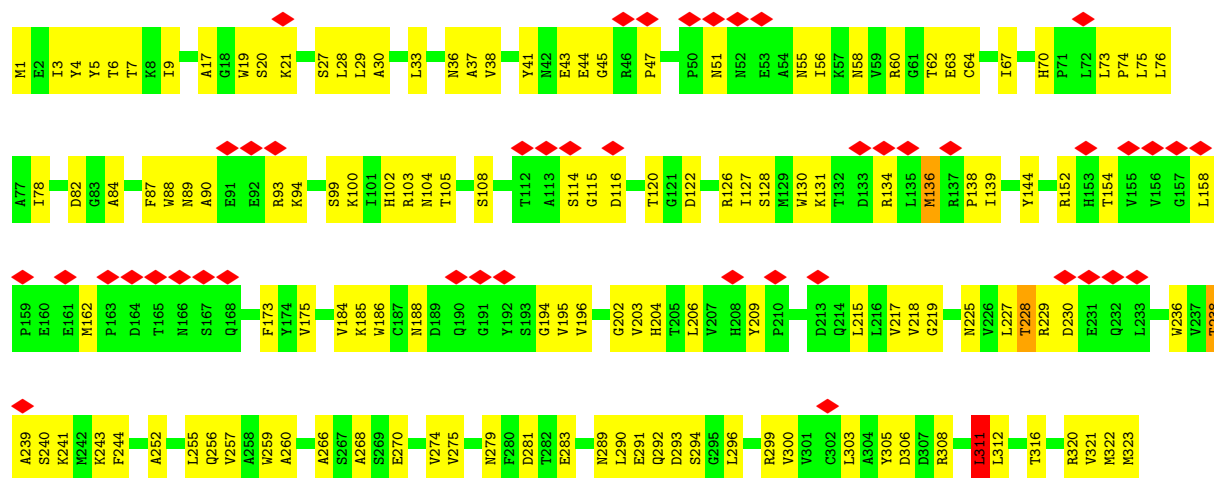
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: Intraflagellar transport protein 144

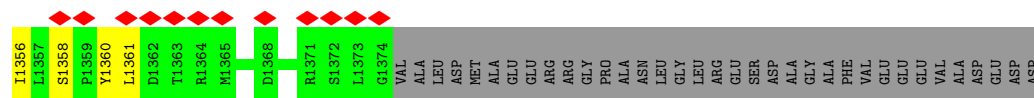




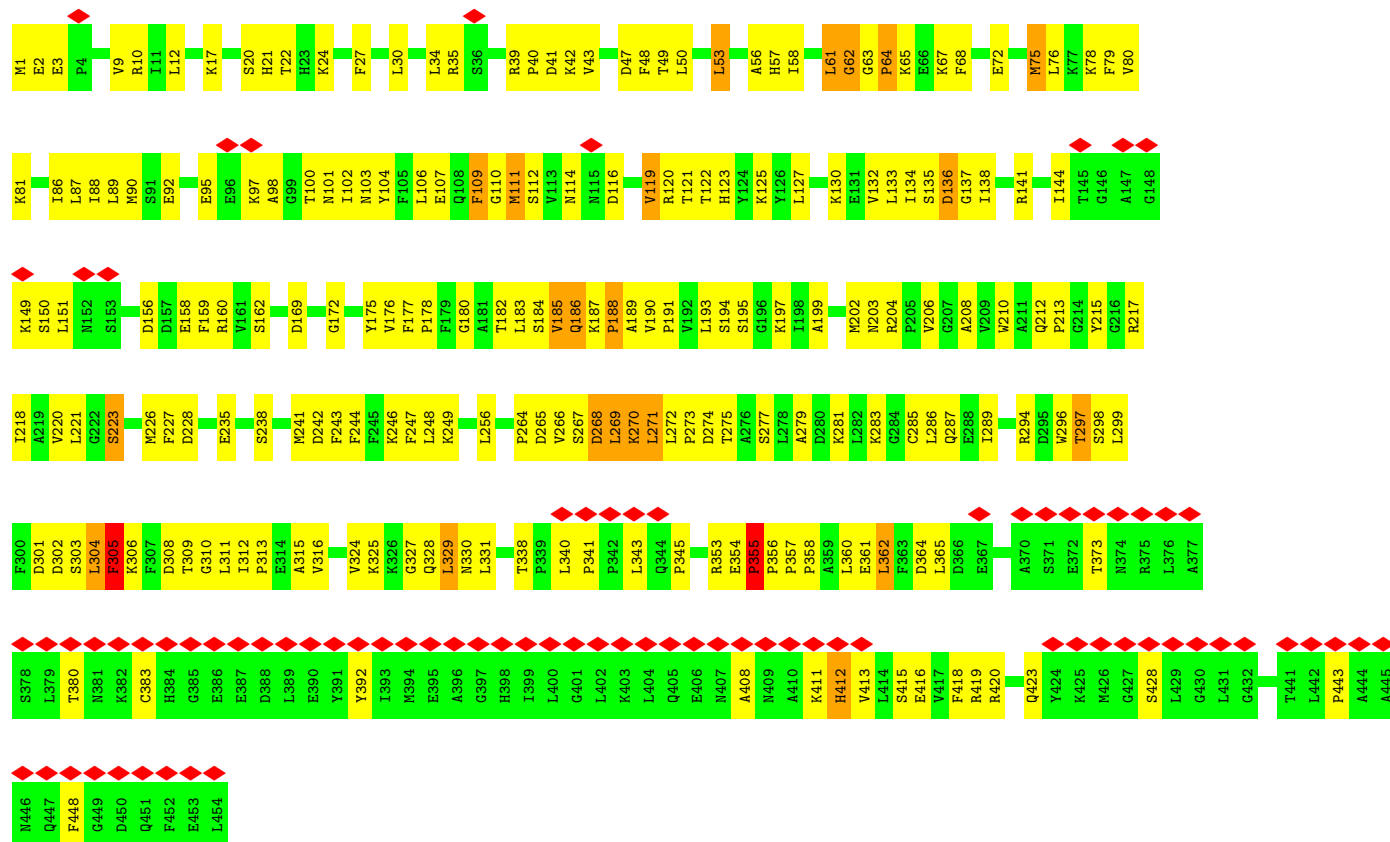
• Molecule 2: Intraflagellar transport particle protein 140



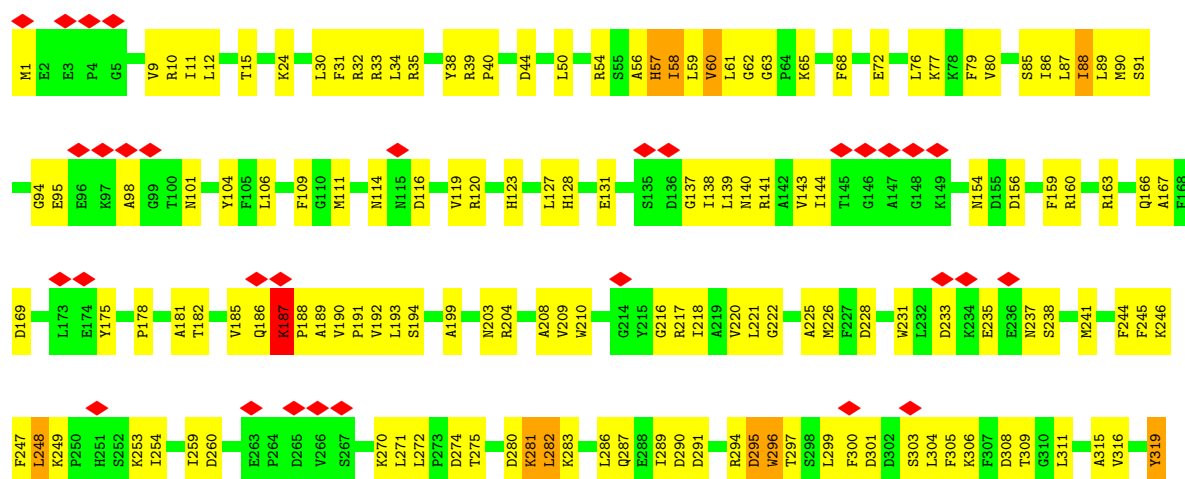


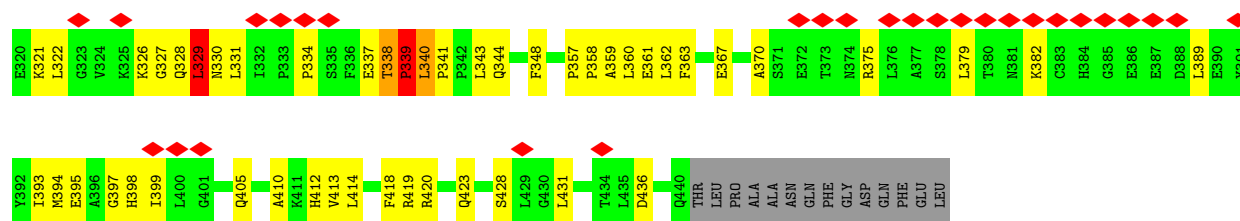


• Molecule 3: Osm-6-like protein

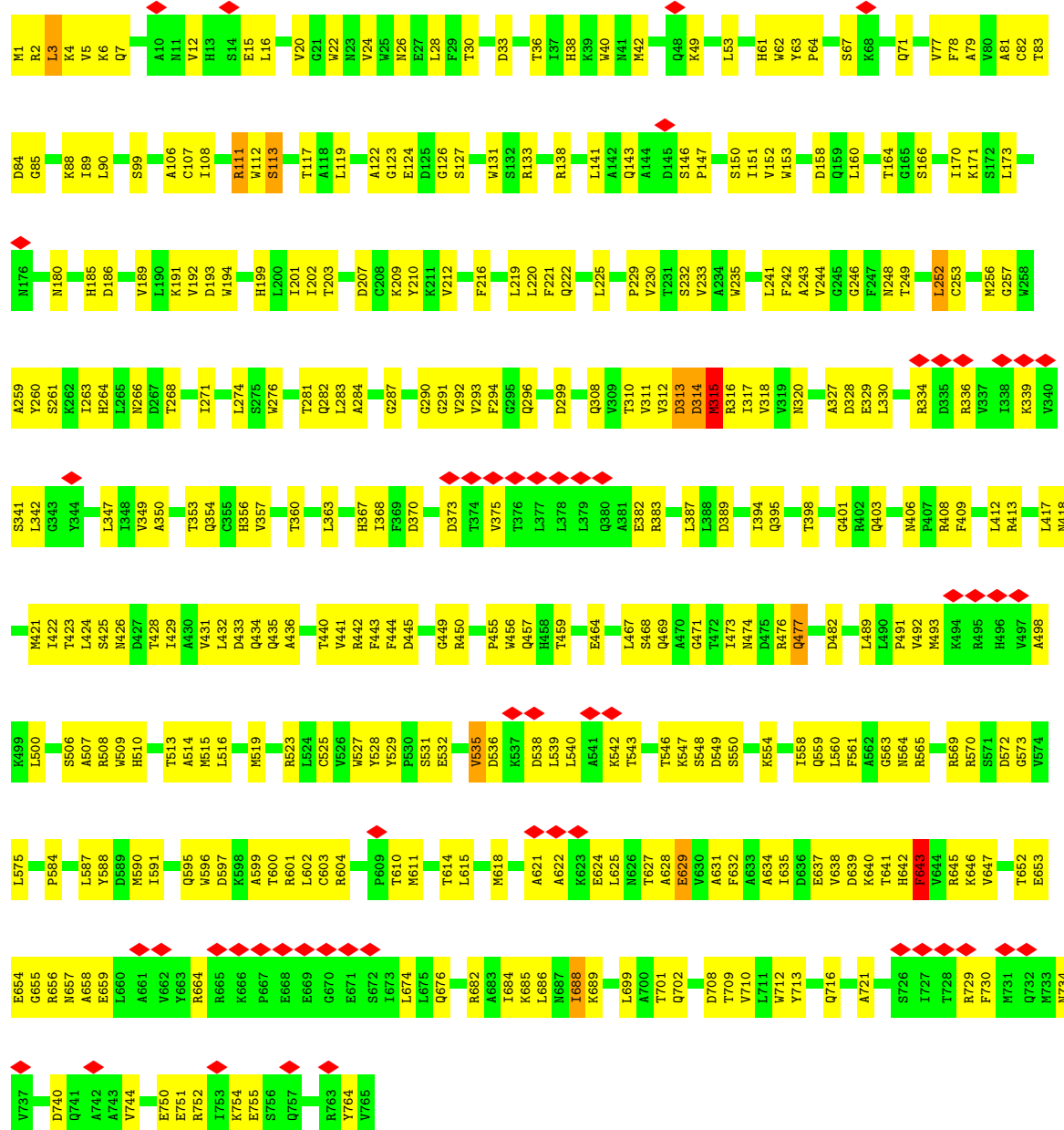


• Molecule 3: Osm-6-like protein



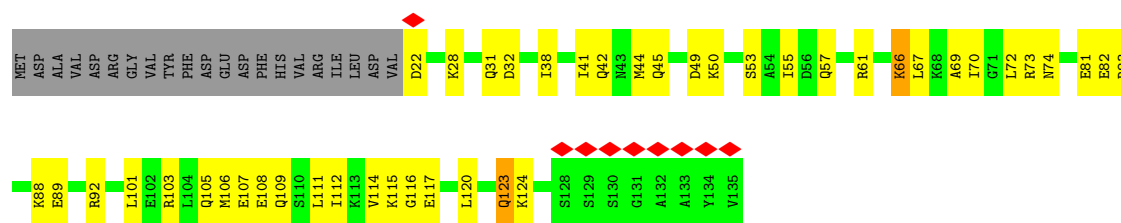


• Molecule 4: Intraflagellar transport protein 80

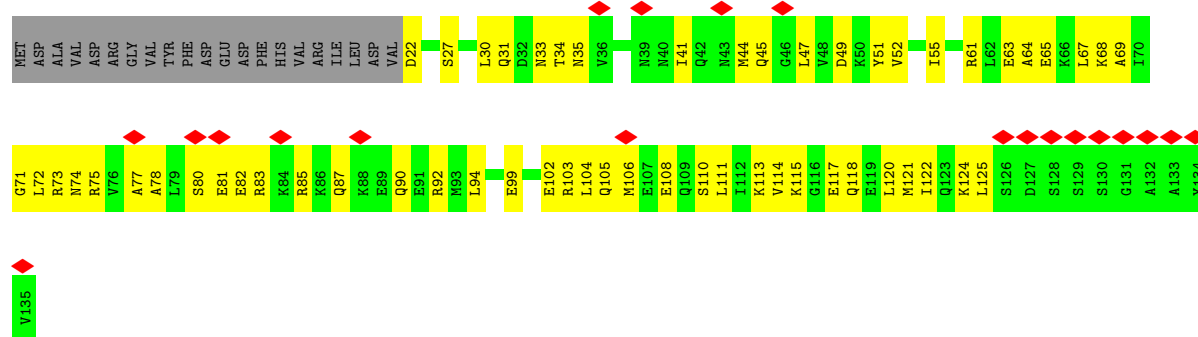
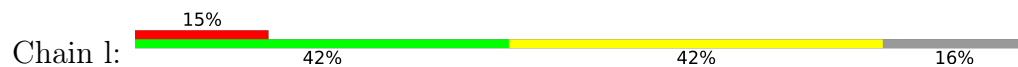


• Molecule 4: Intraflagellar transport protein 80

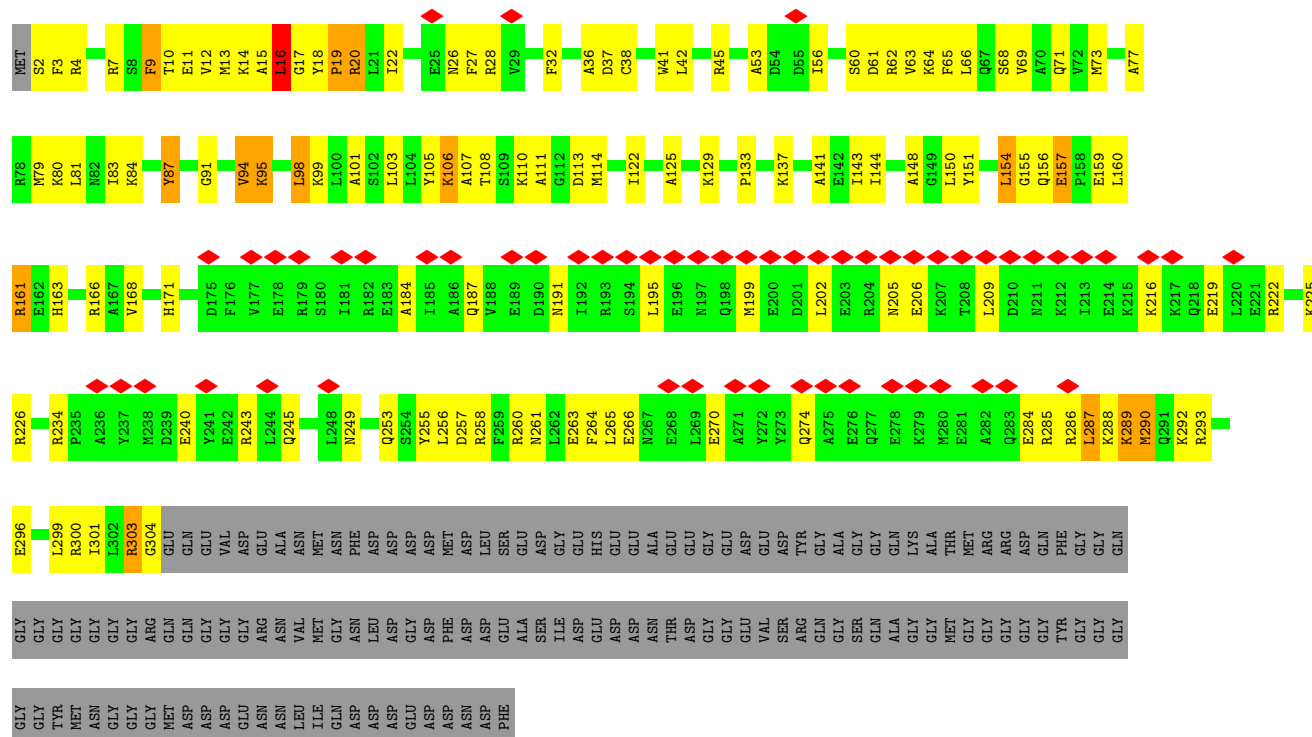




• Molecule 6: Intraflagellar transport particle protein IFT20



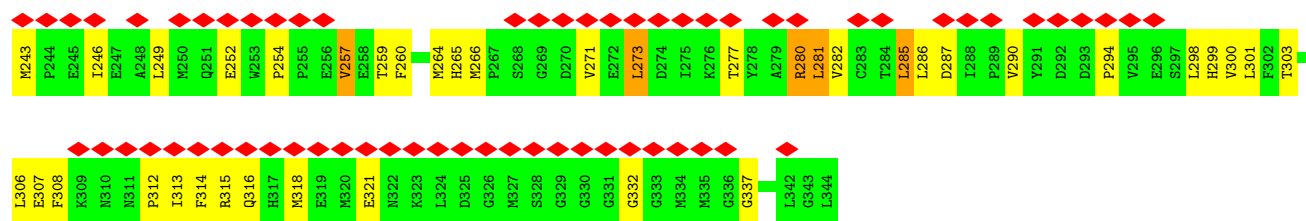
• Molecule 7: Clusterin-associated protein 1



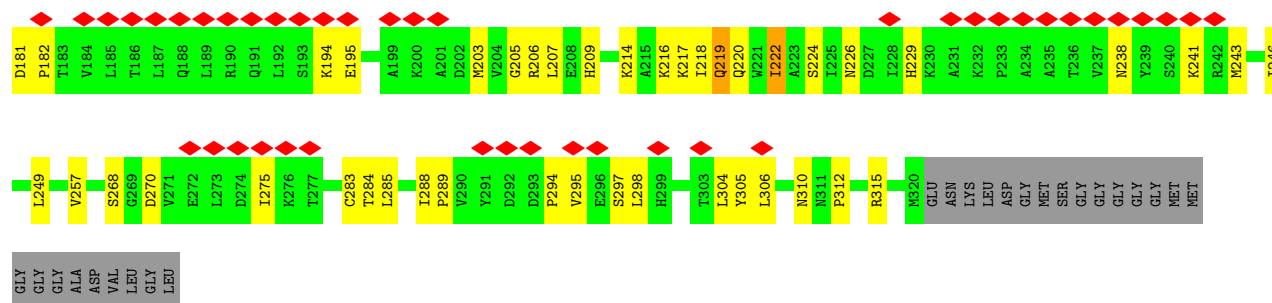
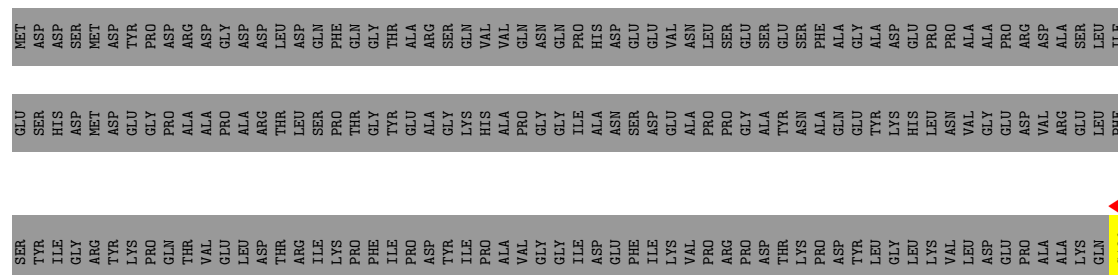
• Molecule 7: Clusterin-associated protein 1



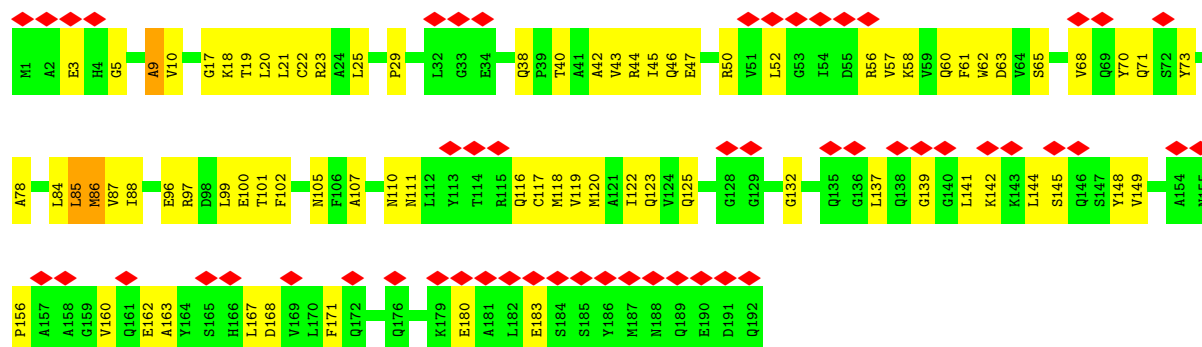




• Molecule 12: Intraflagellar transport protein 46



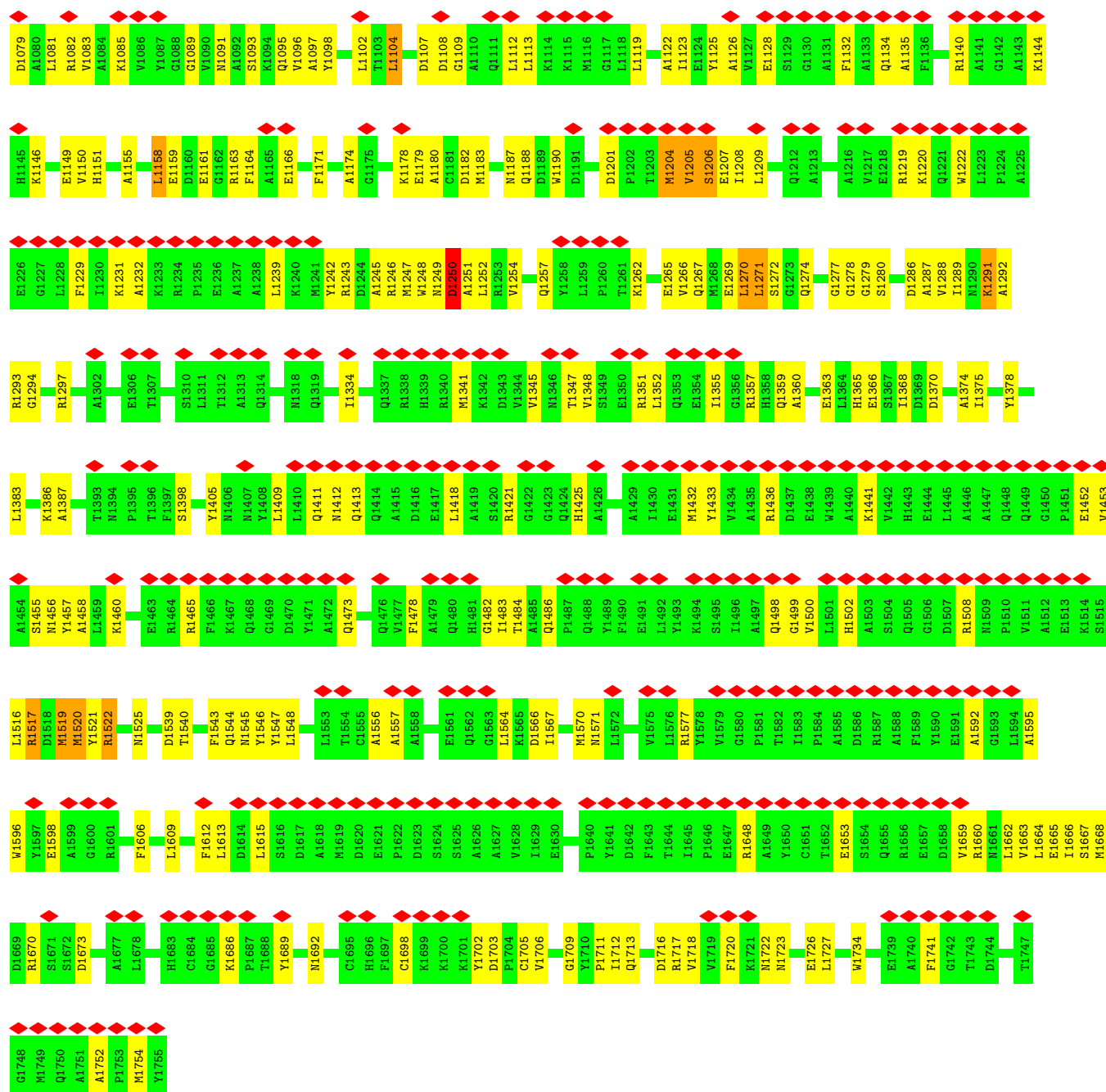
• Molecule 13: Intraflagellar transport protein 22



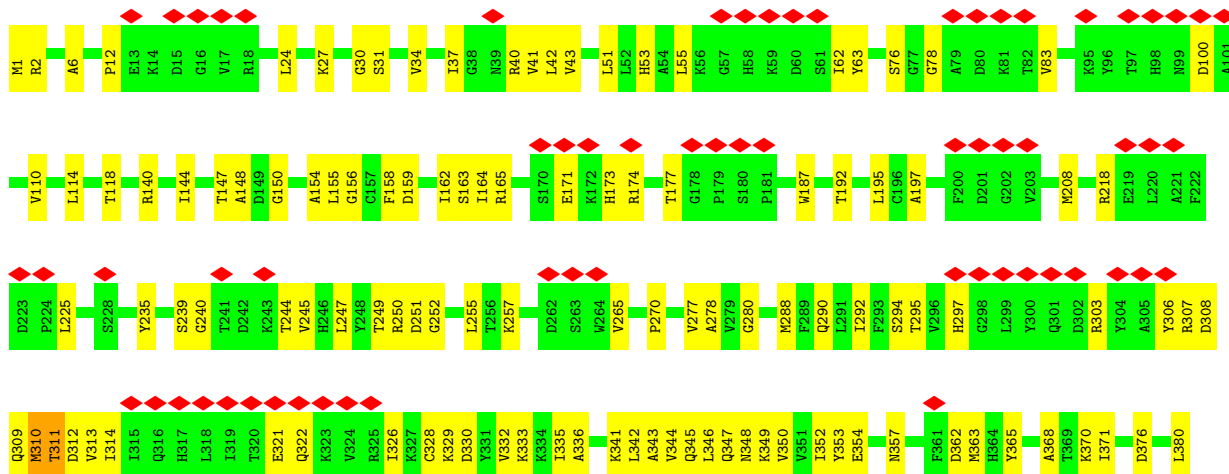
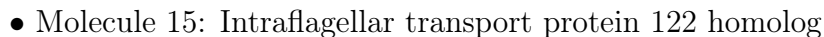
• Molecule 14: Intraflagellar transport protein 172

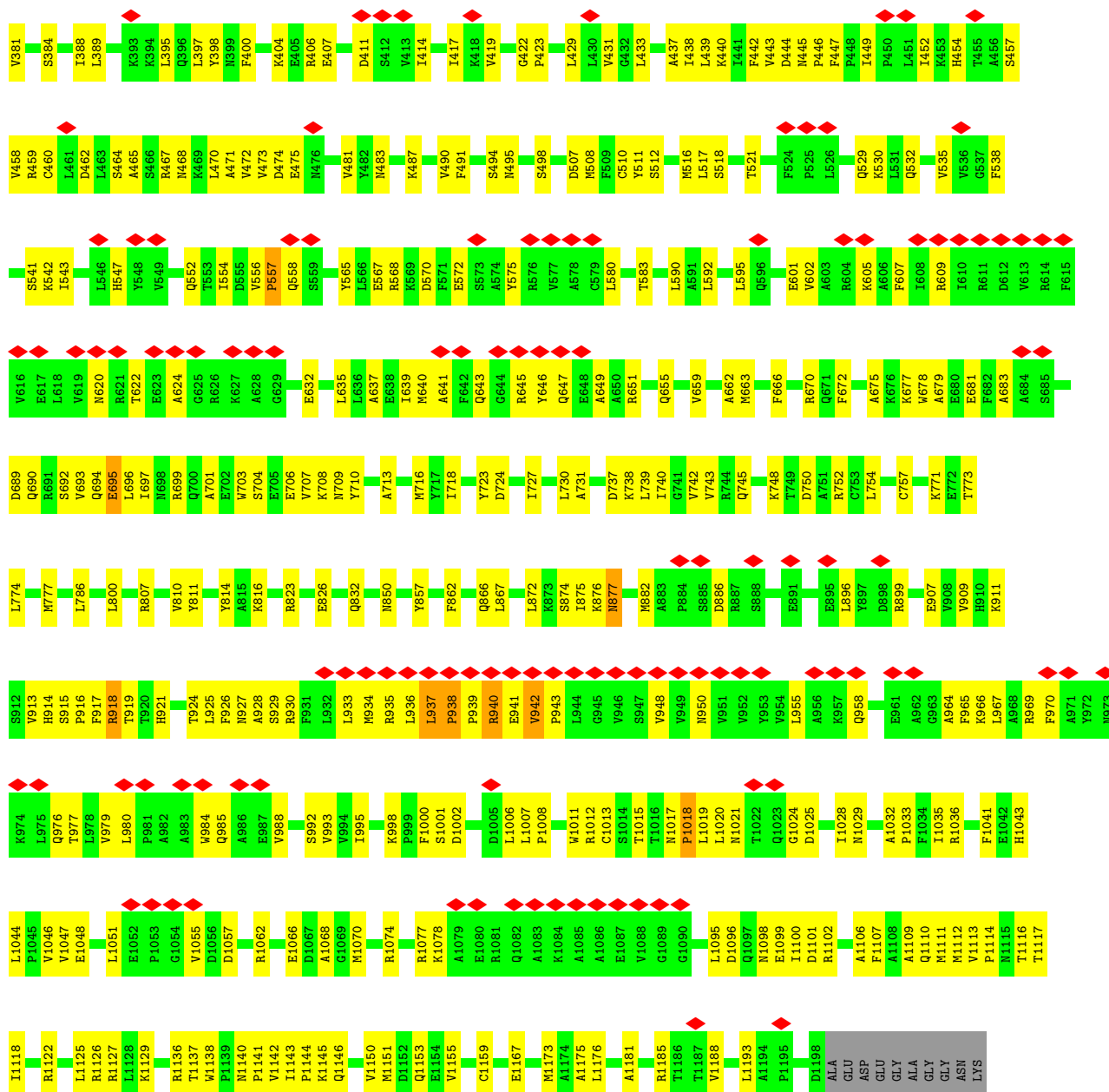


A987	R912	B837	E757	K666	Y602	T502	M428	V343	C251	V182	T99	M1
A988	R913	Y842	E758	V667	F603	L505	D429	K344	A252	K183	G100	R4
H989	E914	Y845	Q759	R668	G604	L506	V430	T345	F253	F184	A101	P11
K990	A915	A845	A762	R669	A605	D508	L431	K346	N254	N185	K104	P12
L991	M916	I846	V763	A671	A606	K509	G432	T347	P255	F186	L108	L22
F919	R920	D847	K764	A674	L607	K510	T433	G349	G257	P187	M108	L27
K992	R921	L848	V765	Y674	E608	R511	R435	M350	D258	T195	K109	L22
E993	R922	A849	E766	T683	D609	H512	B435	R351	T259	S196	F110	N27
A994	R923	R850	R766	Y686	D610	H513	Y440	I352	V260	Q198	F111	N27
E995	R924	R851	E767	V688	D611	L515	L443	V353	F262	L199	Q112	R30
A1001	T928	E952	G768	R689	D612	L516	L444	L354	G263	V200	L117	L31
G1002	T929	R690	D769	R691	Y613	L518	A446	V357	G264	T117	S118	S35
G1003	G930	A690	E613	M691	Y614	S519	V447	Y358	Y265	S119	T36	T36
D1004	A931	A855	L771	M692	E615	G520	V448	G359	N266	L119	V120	D37
D1005	L932	E856	A615	A693	A616	G521	V449	Y360	R267	V205	V121	L42
E933	E933	L858	A772	Q694	A617	E522	A450	Y361	F268	P206	P122	L42
E934	E934	L859	A773	Q695	L619	L526	A451	E361	Y269	Y207	K123	L42
A935	E935	M696	L776	R697	E620	L527	R452	I362	M270	S208	E128	E45
E936	E936	D698	Y777	Y698	E621	N528	G453	E363	N274	L209	G132	D51
E937	E937	Y700	L778	M699	E622	Q531	I454	K364	Q275	G210	L133	D51
Y938	Y938	W701	Y779	Y702	L624	W535	A455	N366	I276	W211	A134	K54
Y939	Y939	S702	L782	S703	L625	G538	S457	T367	R277	G212	D135	A58
I940	I940	W704	F783	E703	P626	E539	A458	A375	N278	S213	G136	E59
H1023	H1023	S704	G784	S705	E627	G539	K459	A376	D279	I215	A216	E59
H1024	H1024	L705	W706	L707	E628	Y543	K460	L461	A283	G216	K137	A60
D875	D875	A708	Q709	A709	E629	A544	L462	T377	Y291	N220	A217	N61
M944	M944	Q709	Y710	Y711	E630	Q545	L463	T378	Y292	G217	R139	N62
Y949	Y949	Y712	Y713	Y714	E631	Y546	L464	T379	Y293	N221	M142	F83
E950	E950	Y715	Y716	Y717	E632	Q546	L465	T380	Y294	N222	N145	N64
M951	M951	Y718	Y719	Y720	E633	R547	L466	T381	Y295	G223	N146	Y66
Y952	Y952	Y721	Y722	Y723	E634	V552	L467	L382	K300	V225	K147	I67
S953	S953	Y724	Y725	Y726	E635	Y553	Q468	L383	P301	Y227	S148	I68
R954	R954	Y727	Y728	Y729	E636	Y554	Q469	L384	D302	Y228	Y149	R69
Q956	Q956	Y730	Y731	Y732	E637	Y555	L472	D385	P302	D229	Y152	S74
K957	K957	Y733	Y734	Y735	E638	Y556	Q473	K390	K305	L230	A153	P75
Y958	Y958	Y736	Y737	Y738	E639	N557	D474	L391	K306	H154	H154	D76
E959	E959	Y739	Y740	Y741	E640	K568	L475	P395	M311	G231	P155	L80
A960	A960	Y742	Y743	Y744	E641	P559	M476	D397	V322	R232	E158	A91
A961	A961	Y745	Y746	Y747	E642	D560	L483	S398	K323	R235	V161	I82
Q962	Q962	Y748	Y749	Y750	E643	D561	A484	D399	R324	F237	A162	A83
R963	R963	Y751	Y752	Y753	E644	Y562	L484	N408	Y327	D238	L163	Q84
V964	V964	Y754	Y755	Y756	E645	T563	L485	V411	K328	Y239	A164	I88
Y968	Y968	Y757	Y758	Y759	E646	M564	L486	C412	G329	S240	S165	V89
L969	L969	Y760	Y761	Y762	E647	Y574	L487	V412	K330	N242	N168	F90
T970	T970	Y763	Y764	Y765	E648	E575	H488	C413	F331	N243	M171	I91
E971	E971	Y766	Y767	Y768	E649	R576	D489	V414	E332	E244	R93	Y92
S972	S972	Y769	Y770	Y771	E650	R577	T490	H415	F333	D245	V173	L94
E973	E973	Y772	Y773	Y774	E651	H577	T491	V416	E334	V245	I172	V95
M974	M974	Y775	Y776	Y777	E652	N578	D493	Y416	T334	R246	S174	D96
R975	R975	Y778	Y779	Y780	E653	Y579	L496	H421	K338	E247	G175	P97
Q1076	Q1076	Y781	Y782	Y783	E654	T581	E496	I422	V341	T250	L181	D98
E1078	E1078	Y784	Y785	Y786	E655	E582	L497	A423	I342			
		Y787	Y788	Y789	E656	Y583	N498	Y423				
		Y790	Y791	Y792	E657	I584	Q499	R500				
		Y793	Y794	Y795	E658	S593	G501					
		Y796	Y797	Y798	E659							
		Y799	Y800	Y801	E660							
		Y802	Y803	Y804	E661							
		Y805	Y806	Y807	E662							
		Y808	Y809	Y810	E663							
		Y811	Y812	Y813	E664							
		Y814	Y815	Y816	E665							
		Y817	Y818	Y819	E666							
		Y820	Y821	Y822	E667							
		Y823	Y824	Y825	E668							
		Y826	Y827	Y828	E669							
		Y829	Y830	Y831	E670							
		Y832	Y833	Y834	E671							
		Y835	Y836	Y837	E672							
		Y838	Y839	Y840	E673							
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		Y847	Y848	Y849	E676							
		Y850	Y851	Y852	E677							
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		Y856	Y857	Y858	E679							
		Y859	Y860	Y861	E680							
		Y862	Y863	Y864	E681							
		Y865	Y866	Y867	E682							
		Y868	Y869	Y870	E683							
		Y871	Y872	Y873	E684							
		Y874	Y875	Y876	E685							
		Y877	Y878	Y879	E686							
		Y880	Y881	Y882	E687							
		Y883	Y884	Y885	E688							
		Y886	Y887	Y888	E689							
		Y889	Y890	Y891	E690							
		Y892	Y893	Y894	E691							
		Y895	Y896	Y897	E692							
		Y898	Y899	Y900	E693							
		Y901	Y902	Y903	E694							
		Y904	Y905	Y906	E695							
		Y907	Y908	Y909	E696							
		Y910	Y911	Y912	E697							
		Y913	Y914	Y915	E698							
		Y916	Y917	Y918	E699							
		Y919	Y920	Y921	E700							
		Y922	Y923	Y924	E701							
		Y925	Y926	Y927	E702							
		Y928	Y929	Y930	E703							
		Y931	Y932	Y933	E704							
		Y934	Y935	Y936	E705							
		Y937	Y938	Y939	E706							
		Y940	Y941	Y942	E707							
		Y943	Y944	Y945	E708							
		Y946	Y947	Y948	E709							
		Y949	Y950	Y951	E710							
		Y952	Y953	Y954	E711							
		Y955	Y956	Y957	E712							
		Y958	Y959	Y960	E713							
		Y961	Y962	Y963	E714							
		Y964	Y965	Y966	E715							
		Y967	Y968	Y969	E716							
		Y970	Y971	Y972	E717							
		Y973	Y974	Y975	E718							
		Y976	Y977	Y978	E719							
		Y979	Y980	Y981	E720							
		Y982	Y983	Y984	E721							
		Y985	Y986	Y987	E722							
		Y988	Y989	Y990	E723							
		Y991	Y992	Y993	E724							
		Y994	Y995	Y996	E725							
		Y997	Y998	Y999	E726							
		Y1000	Y1001	Y1002	E727							
		Y1003	Y1004	Y1005	E728							
		Y1006	Y1007	Y1008	E729							
		Y1009	Y1010	Y1011	E730							
		Y1012	Y1013	Y1014	E731							
		Y1015	Y1016	Y1017	E732							
		Y1018	Y1019	Y1020	E733							
		Y1021	Y1022	Y1023	E734							
		Y1024	Y1025	Y1026	E735							
		Y1027	Y1028	Y1029	E736							
		Y1030	Y1031	Y1032	E737							
		Y1033	Y1034	Y1035</								



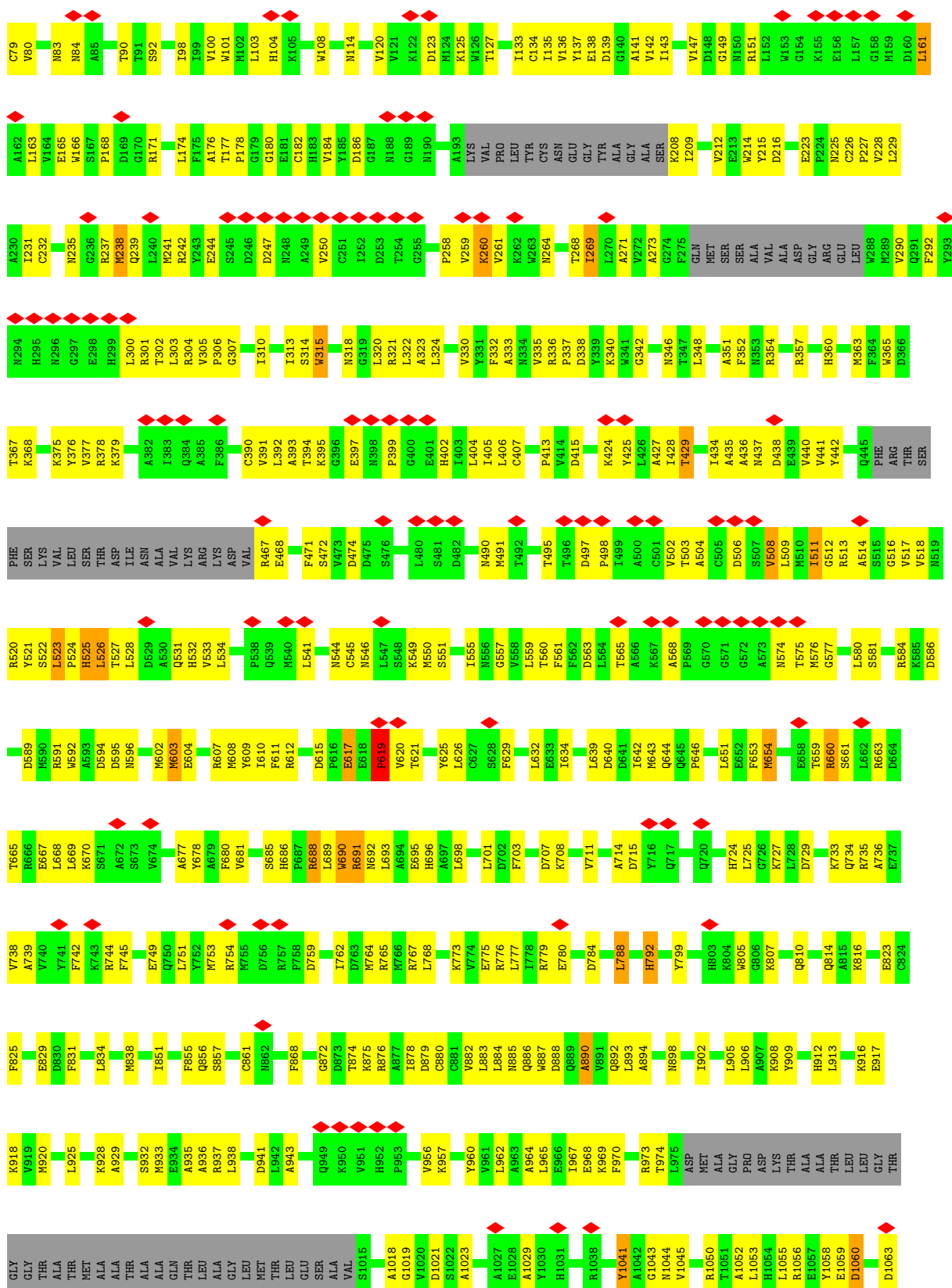


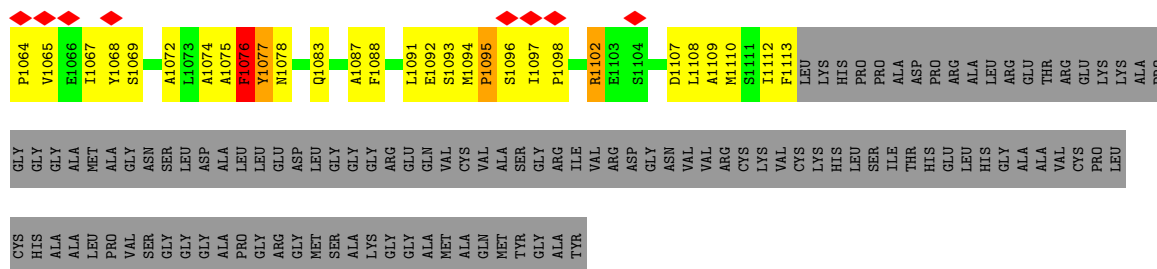




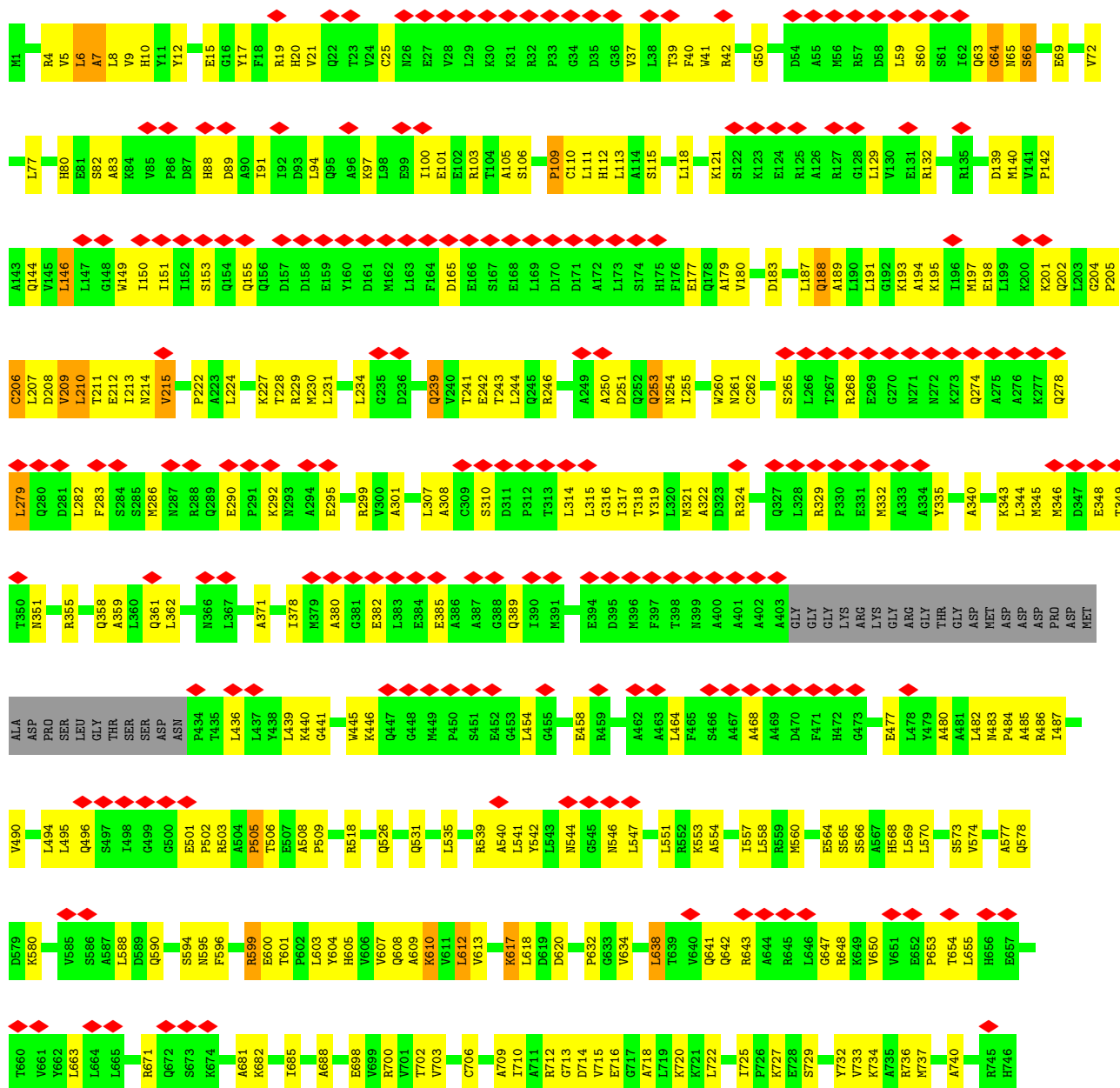
• Molecule 16: Intraflagellar transport protein 121

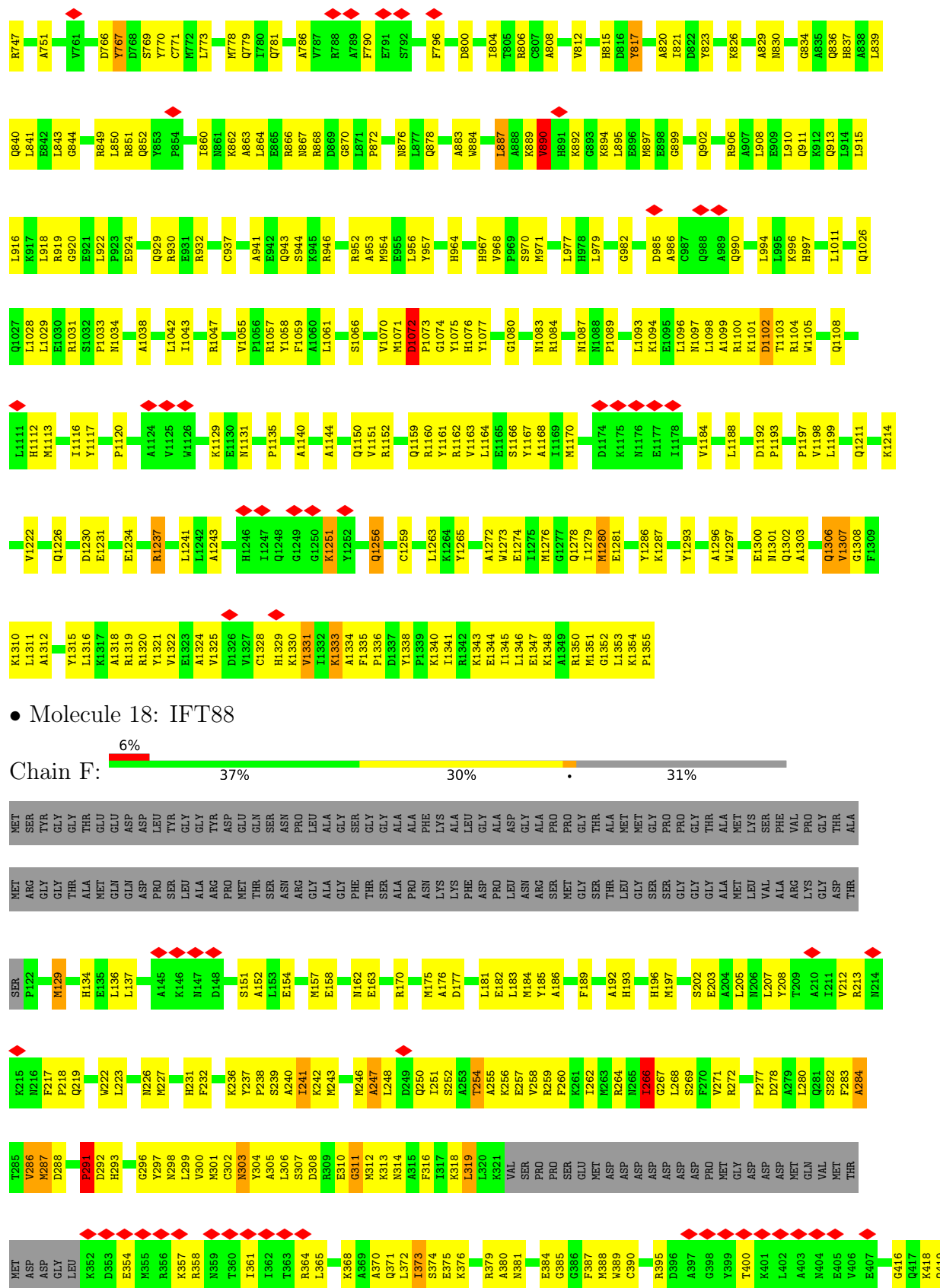


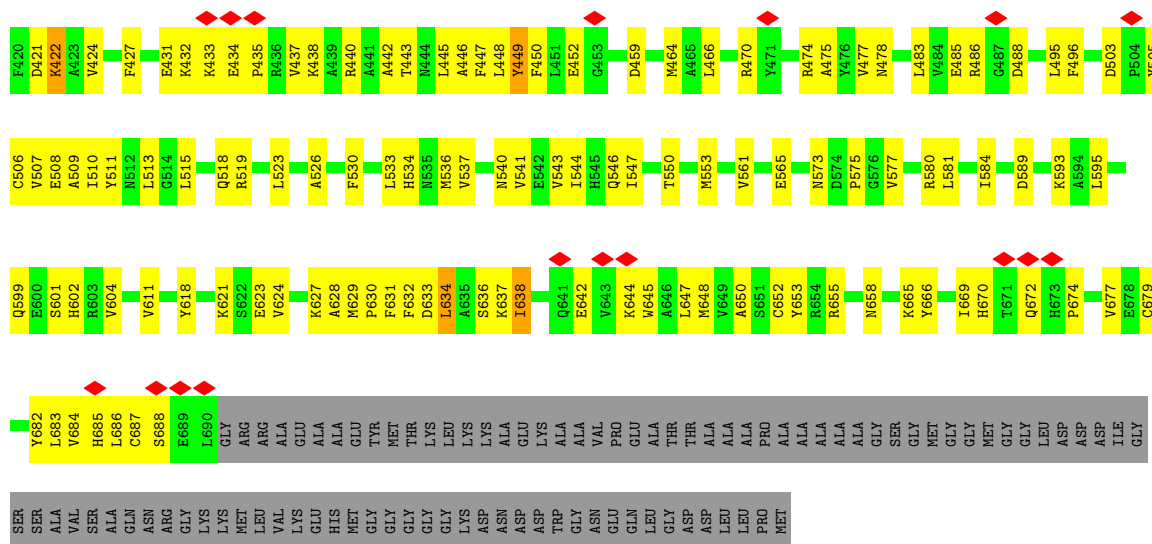




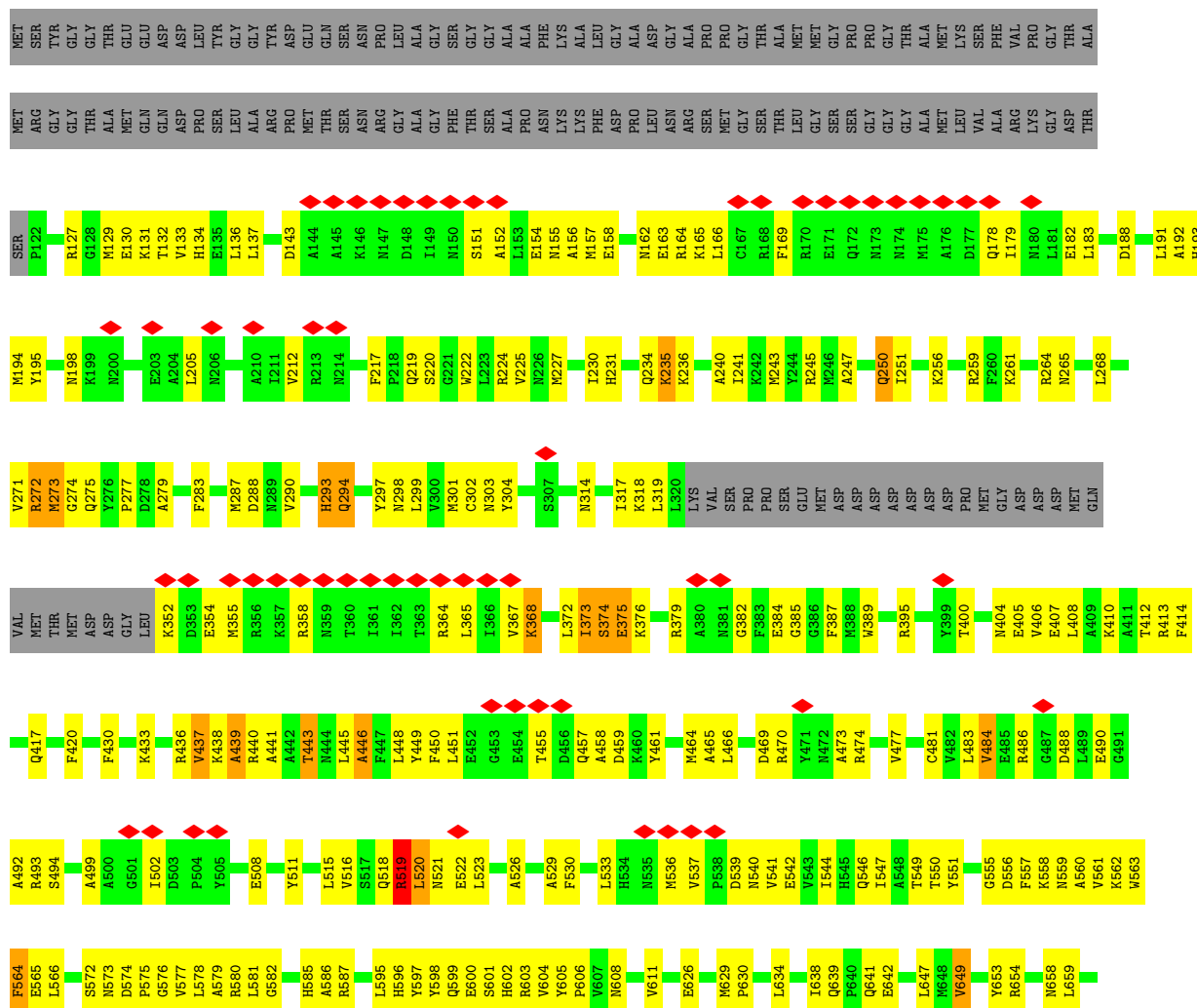
• Molecule 17: Intraflagellar transport protein 139

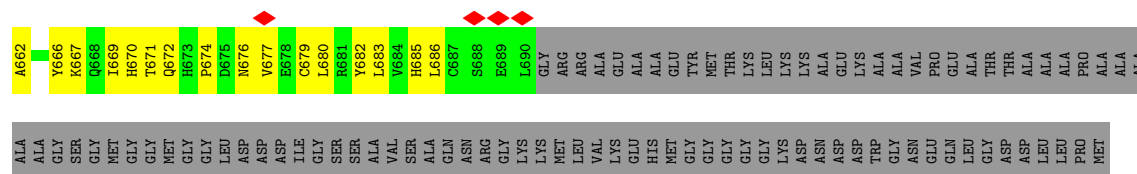




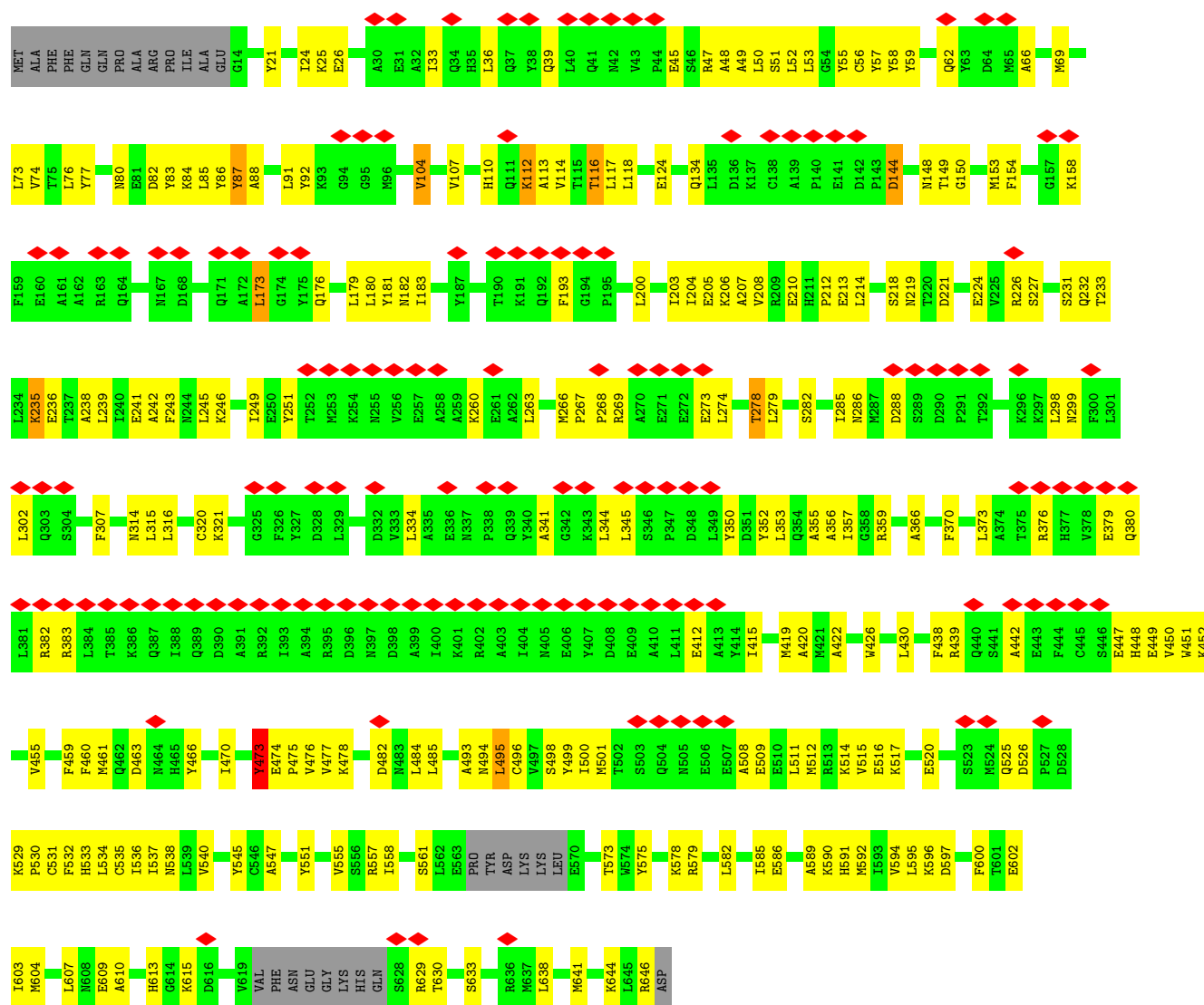


• Molecule 18: IFT88

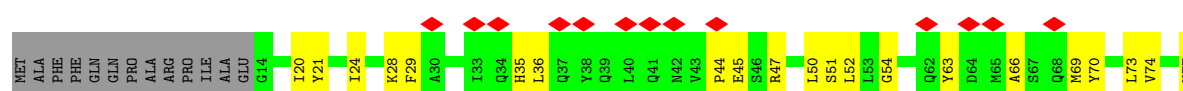


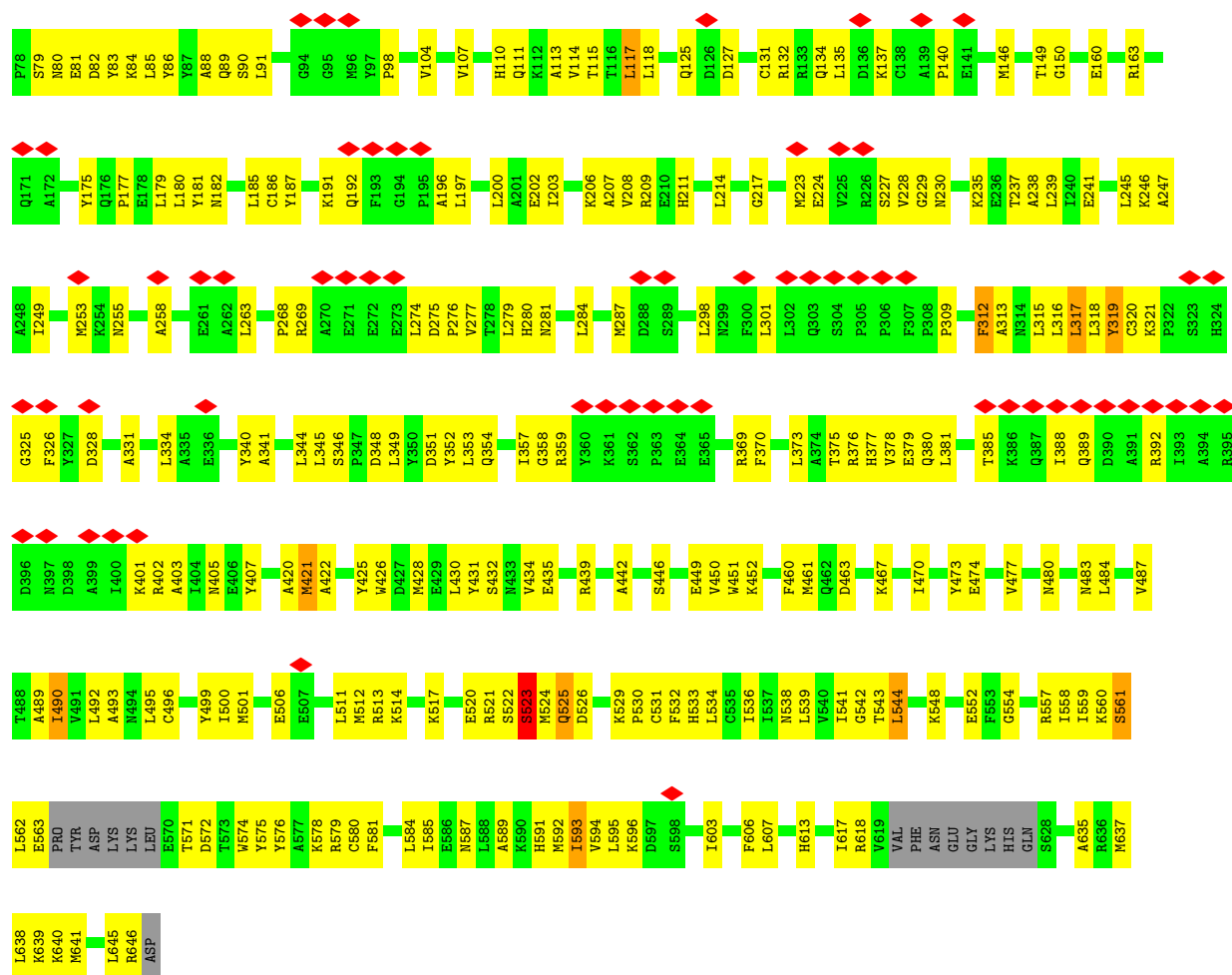


• Molecule 19: IFT70

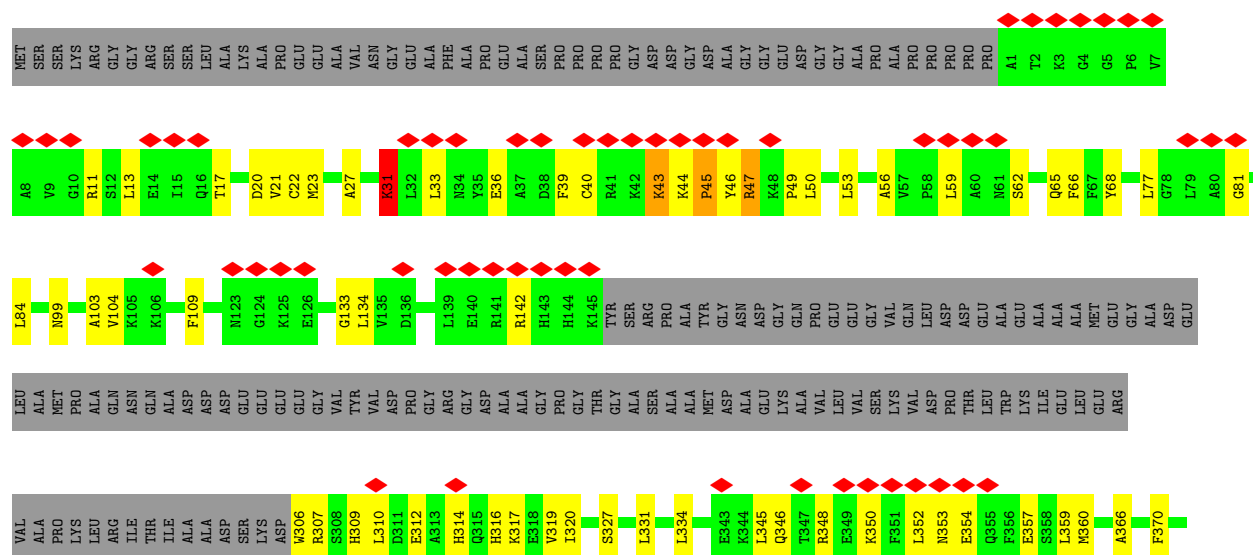


• Molecule 19: IFT70





● Molecule 20: Intraflagellar transport protein 57



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of subtomograms used	5896	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	104	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	Not provided	
Image detector	TFS FALCON 4i (4k x 4k)	Depositor
Maximum map value	11.329	Depositor
Minimum map value	0.000	Depositor
Average map value	0.045	Depositor
Map value standard deviation	0.478	Depositor
Recommended contour level	4.5	Depositor
Map size (Å)	1357.44, 2090.7, 1357.44	wwPDB
Map dimensions	224, 345, 224	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	6.06, 6.06, 6.06	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	0.40	0/10781	0.71	4/14601 (0.0%)
2	B	0.41	0/10982	0.71	2/14878 (0.0%)
3	H	0.51	0/3635	0.86	8/4918 (0.2%)
3	h	0.46	0/3522	0.80	4/4765 (0.1%)
4	J	0.46	0/6147	0.78	3/8333 (0.0%)
4	j	0.42	0/6147	0.76	1/8333 (0.0%)
5	K	0.31	0/857	0.66	0/1144
5	k	0.29	0/857	0.58	0/1144
6	L	0.38	0/922	0.67	0/1226
6	l	0.41	0/922	0.75	1/1226 (0.1%)
7	N	0.50	0/2504	0.83	2/3356 (0.1%)
7	n	0.46	0/2504	0.76	4/3356 (0.1%)
8	O	0.40	0/2425	0.77	0/3223
9	P	0.44	0/2462	0.75	1/3290 (0.0%)
10	Q	0.48	0/1637	0.76	2/2224 (0.1%)
11	R	0.41	0/1103	0.71	0/1485
12	S	0.50	0/1068	0.91	2/1441 (0.1%)
12	s	0.27	0/1164	0.66	2/1579 (0.1%)
13	T	0.34	0/1528	0.70	0/2066
14	I	0.45	0/13910	0.78	5/18827 (0.0%)
14	i	0.36	0/14205	0.68	7/19226 (0.0%)
15	C	0.37	0/9820	0.66	2/13292 (0.0%)
16	D	0.45	0/8336	0.78	9/11273 (0.1%)
17	E	0.46	0/10649	0.82	14/14397 (0.1%)
18	F	0.48	0/4423	0.85	4/5956 (0.1%)
18	f	0.47	0/4414	0.85	6/5945 (0.1%)
19	G	0.47	0/5080	0.83	6/6863 (0.1%)
19	g	0.42	0/5080	0.74	5/6863 (0.1%)
20	M	0.35	0/2510	0.67	2/3385 (0.1%)
20	m	0.29	0/2510	0.56	0/3385
All	All	0.43	0/142104	0.75	96/192000 (0.1%)

There are no bond length outliers.

All (96) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	E	6	LEU	N-CA-C	-9.85	101.28	113.20
14	i	1706	VAL	N-CA-C	-9.30	102.10	111.77
4	j	665	ARG	N-CA-C	-9.23	96.81	110.48
3	H	127	LEU	CA-C-N	8.36	132.01	120.39
3	H	127	LEU	C-N-CA	8.36	132.01	120.39
17	E	206	CYS	N-CA-C	-8.27	102.14	112.72
12	s	219	GLN	N-CA-C	-7.98	102.17	112.23
14	i	222	ASN	N-CA-C	-7.60	103.30	112.58
17	E	307	LEU	N-CA-C	7.43	117.68	107.73
14	i	664	LEU	N-CA-C	-7.32	102.35	110.91
17	E	767	TYR	N-CA-C	7.31	121.44	112.23
10	Q	94	TYR	N-CA-C	-7.18	101.64	111.56
20	M	31	LYS	N-CA-C	-6.88	103.87	111.36
17	E	64	GLY	CA-C-O	-6.86	117.50	122.23
18	F	266	ILE	N-CA-C	-6.82	103.02	112.50
14	i	1231	LYS	N-CA-C	-6.75	104.00	111.36
3	H	109	PHE	N-CA-C	-6.64	104.19	112.90
20	M	451	LEU	N-CA-C	-6.57	103.95	112.23
18	f	564	PHE	N-CA-C	-6.57	104.20	111.36
3	h	245	PHE	N-CA-C	-6.50	105.42	113.15
4	J	664	ARG	N-CA-C	-6.50	100.04	109.59
19	g	544	LEU	N-CA-C	-6.47	104.30	111.36
3	h	57	HIS	N-CA-C	-6.47	105.13	114.12
17	E	600	GLU	N-CA-C	-6.45	104.56	112.88
19	G	279	LEU	N-CA-C	-6.43	104.19	111.07
14	i	1250	ASP	N-CA-C	-6.40	104.31	111.28
7	n	291	GLN	N-CA-C	-6.31	105.41	113.23
3	h	300	PHE	N-CA-C	-6.31	106.12	113.88
17	E	817	TYR	N-CA-C	6.22	117.86	111.14
17	E	7	ALA	N-CA-C	-6.18	104.47	112.68
14	i	557	ASN	N-CA-C	-6.16	104.67	111.82
1	A	823	ALA	CA-C-N	6.01	128.74	120.39
1	A	823	ALA	C-N-CA	6.01	128.74	120.39
3	h	319	TYR	N-CA-C	-5.98	104.70	112.23
14	I	698	GLN	N-CA-C	-5.98	98.07	110.80
19	G	213	GLU	N-CA-C	-5.97	105.48	112.89
16	D	78	ILE	N-CA-C	-5.97	107.68	113.53
16	D	619	PRO	N-CA-CB	-5.95	97.00	103.25
16	D	792	HIS	N-CA-C	-5.95	104.72	111.14
19	g	312	PHE	N-CA-C	-5.88	105.46	114.16
17	E	505	PRO	N-CA-C	-5.88	105.87	113.57
14	i	975	ARG	N-CA-C	-5.84	104.99	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	E	767	TYR	CA-C-N	-5.80	111.93	120.28
17	E	767	TYR	C-N-CA	-5.80	111.93	120.28
15	C	966	LYS	N-CA-C	-5.71	105.14	111.36
16	D	688	ARG	N-CA-C	-5.67	106.03	113.12
3	H	121	THR	N-CA-C	-5.61	106.79	113.97
18	f	293	HIS	N-CA-C	-5.61	106.27	113.23
9	P	566	HIS	CB-CA-C	5.57	120.31	110.85
10	Q	170	PRO	N-CA-C	5.54	117.46	110.70
7	N	303	ARG	N-CA-C	-5.54	106.65	113.41
3	H	268	ASP	N-CA-C	-5.54	104.78	112.03
3	H	305	PHE	N-CA-C	-5.53	101.30	109.86
12	s	222	ILE	N-CA-C	-5.53	105.14	110.72
14	I	783	PRO	N-CA-C	-5.51	106.35	113.57
7	n	288	LYS	N-CA-C	-5.51	105.29	112.23
1	A	247	ILE	CA-C-N	-5.47	109.99	121.64
1	A	247	ILE	C-N-CA	-5.47	109.99	121.64
3	H	303	SER	N-CA-C	-5.46	104.88	112.03
19	g	593	ILE	CA-C-N	5.45	128.01	120.49
19	g	593	ILE	C-N-CA	5.45	128.01	120.49
18	f	294	GLN	N-CA-C	-5.44	105.00	111.03
15	C	695	GLU	N-CA-C	-5.40	106.53	113.01
17	E	109	PRO	N-CA-C	-5.35	109.12	114.68
2	B	311	LEU	N-CA-C	5.34	117.45	107.99
18	f	484	VAL	N-CA-C	-5.33	105.19	111.00
3	H	188	PRO	N-CA-C	-5.33	105.69	114.75
7	n	230	LEU	N-CA-C	-5.33	106.62	113.23
14	I	974	MET	N-CA-C	-5.30	105.40	111.07
19	G	473	TYR	N-CA-C	-5.26	106.89	113.72
18	F	284	ALA	N-CA-C	-5.23	108.66	114.62
18	F	291	PRO	CA-C-N	5.22	131.51	122.32
18	F	291	PRO	C-N-CA	5.22	131.51	122.32
16	D	711	VAL	CA-C-N	-5.21	113.52	122.79
16	D	711	VAL	C-N-CA	-5.21	113.52	122.79
19	G	260	LYS	N-CA-C	-5.20	107.96	114.56
17	E	215	VAL	N-CA-C	-5.17	107.71	112.83
18	f	519	ARG	N-CA-C	-5.16	105.55	111.07
4	J	266	ASN	CA-C-N	5.14	129.71	122.46
4	J	266	ASN	C-N-CA	5.14	129.71	122.46
19	G	173	LEU	CA-C-N	5.13	128.33	120.07
19	G	173	LEU	C-N-CA	5.13	128.33	120.07
17	E	253	GLN	N-CA-C	-5.13	105.04	113.50
14	I	836	TYR	N-CA-C	-5.12	105.70	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	n	72	VAL	N-CA-C	-5.11	108.52	113.53
2	B	1235	CYS	N-CA-C	-5.10	105.80	111.36
19	g	319	TYR	N-CA-C	-5.07	105.64	111.07
16	D	315	TRP	CB-CA-C	-5.04	103.48	113.45
16	D	315	TRP	N-CA-C	5.04	117.13	109.63
6	l	122	ILE	N-CA-C	-5.03	105.59	110.42
12	S	257	VAL	CA-C-N	5.02	131.13	121.54
12	S	257	VAL	C-N-CA	5.02	131.13	121.54
14	I	984	GLU	N-CA-C	-5.02	105.50	110.97
16	D	1076	PHE	CA-C-O	-5.02	116.21	121.88
7	N	9	PHE	N-CA-C	-5.00	106.34	112.90
18	f	470	ARG	N-CA-C	-5.00	107.86	114.31

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	10579	0	10549	376	0
2	B	10764	0	10610	398	0
3	H	3553	0	3523	199	0
3	h	3443	0	3424	188	0
4	J	6025	0	5988	285	0
4	j	6025	0	5988	294	0
5	K	849	0	863	29	0
5	k	849	0	863	51	0
6	L	919	0	936	56	0
6	l	919	0	936	62	0
7	N	2472	0	2484	137	0
7	n	2472	0	2484	128	0
8	O	2411	0	2484	89	0
9	P	2439	0	2492	102	0
10	Q	1602	0	1595	61	0
11	R	1086	0	1078	65	0
12	S	1045	0	1039	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
12	s	1138	0	1144	38	0
13	T	1500	0	1494	60	0
14	I	13615	0	13253	510	0
14	i	13906	0	13526	455	0
15	C	9609	0	9529	350	0
16	D	8154	0	7994	371	0
17	E	10464	0	10515	373	0
18	F	4337	0	4306	226	0
18	f	4328	0	4293	214	0
19	G	4978	0	4912	190	0
19	g	4978	0	4912	218	0
20	M	2466	0	2487	99	0
20	m	2466	0	2487	94	0
All	All	139391	0	138188	5160	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 19.

All (5160) 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)
18:F:304:TYR:HA	18:F:312:MET:HB2	1.46	0.97
15:C:934:MET:HG2	15:C:1020:LEU:HB3	1.45	0.96
14:i:1271:LEU:HA	14:i:1293:ARG:HD3	1.46	0.94
14:I:215:ILE:HB	14:I:227:TYR:O	1.67	0.93
6:L:120:LEU:HB3	14:I:781:GLY:HA3	1.49	0.92
7:n:230:LEU:HD22	20:m:412:ILE:HD12	1.49	0.92
14:i:1246:ARG:HB3	14:i:1279:GLY:HA3	1.49	0.92
13:T:3:GLU:HA	13:T:56:ARG:O	1.69	0.91
19:G:85:LEU:HD13	19:G:110:HIS:HB2	1.50	0.91
1:A:453:ALA:O	1:A:463:VAL:HA	1.69	0.91
15:C:333:LYS:HG3	15:C:376:ASP:HA	1.53	0.90
16:D:517:VAL:HA	16:D:532:HIS:O	1.72	0.90
4:J:436:ALA:HB3	4:J:440:THR:HB	1.54	0.89
16:D:1068:TYR:HB3	16:D:1097:ILE:HG12	1.54	0.89
1:A:258:ILE:HB	1:A:270:VAL:O	1.71	0.88
18:F:217:PHE:HB2	19:G:592:MET:HG3	1.55	0.88
3:H:87:LEU:HB2	3:H:248:LEU:HD11	1.54	0.88
20:M:43:LYS:HE2	20:M:46:TYR:H	1.38	0.87
16:D:509:LEU:HD13	16:D:523:LEU:HD21	1.56	0.87
19:G:478:LYS:HE2	19:G:511:LEU:HD22	1.54	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:373:LEU:O	14:I:383:MET:HA	1.76	0.86
1:A:349:VAL:O	1:A:356:MET:HA	1.75	0.85
17:E:21:VAL:O	17:E:25:CYS:HB2	1.76	0.85
4:j:469:GLN:HG2	4:j:509:TRP:HB3	1.58	0.85
16:D:1074:ALA:HB1	16:D:1087:ALA:HB1	1.56	0.85
2:B:227:LEU:HB3	2:B:236:TRP:HB3	1.56	0.85
17:E:1297:TRP:HB2	17:E:1307:VAL:HG21	1.56	0.85
4:J:468:SER:HB2	4:J:476:ARG:HA	1.59	0.84
3:h:326:LYS:HD3	3:h:329:LEU:HD12	1.60	0.84
14:I:364:LYS:O	14:I:376:ARG:HB2	1.77	0.84
6:L:67:LEU:HD21	7:N:15:ALA:HB2	1.60	0.83
18:f:220:SER:O	18:f:224:ARG:HB2	1.78	0.83
19:g:85:LEU:HD21	19:g:113:ALA:HB3	1.60	0.83
17:E:531:GLN:O	17:E:535:LEU:HB3	1.78	0.83
15:C:1017:ASN:HB3	15:C:1028:ILE:H	1.44	0.82
8:O:465:LYS:O	8:O:469:ASP:HB2	1.80	0.82
16:D:745:PHE:O	16:D:749:GLU:HB2	1.79	0.82
18:F:257:GLU:HB3	19:G:646:ARG:HA	1.62	0.82
2:B:1315:GLN:HG2	2:B:1355:ILE:HG12	1.61	0.82
14:I:1628:VAL:HG21	14:I:1643:PHE:H	1.45	0.82
4:J:655:GLY:O	4:J:659:GLU:HB2	1.80	0.82
7:N:60:SER:HA	7:N:87:TYR:HE2	1.45	0.82
14:i:220:ASN:HB3	20:m:52:ARG:HB2	1.63	0.81
14:i:1188:GLN:HG3	14:I:1258:TYR:HA	1.60	0.81
16:D:123:ASP:HB2	16:D:136:VAL:HB	1.63	0.81
1:A:225:ILE:O	1:A:236:LEU:HB3	1.81	0.81
3:H:329:LEU:HD23	18:F:177:ASP:HB3	1.63	0.81
19:G:274:LEU:HB3	19:G:278:THR:HB	1.63	0.81
15:C:328:CYS:HB3	15:C:346:LEU:HD21	1.62	0.80
14:I:1703:ASP:HB2	14:I:1728:ASN:HB2	1.62	0.80
4:J:202:ILE:HD13	4:J:242:PHE:HB2	1.64	0.80
16:D:887:TRP:HE1	16:D:913:LEU:HD12	1.47	0.80
14:I:1602:LYS:HB3	14:I:1666:ILE:HG23	1.64	0.80
17:E:69:GLU:HG2	17:E:101:GLU:HG3	1.64	0.80
18:f:578:LEU:HD13	18:f:600:GLU:HG2	1.64	0.79
16:D:429:THR:HB	16:D:523:LEU:HD13	1.62	0.79
18:f:274:GLY:HA3	18:f:302:CYS:HA	1.63	0.79
14:I:1707:VAL:HB	14:I:1734:TRP:HD1	1.48	0.79
2:B:737:PHE:O	2:B:741:LYS:HB2	1.83	0.79
7:N:84:LYS:HE3	17:E:212:GLU:HB2	1.65	0.79
20:M:43:LYS:HE2	20:M:45:PRO:HB2	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:F:648:MET:O	18:F:652:CYS:HB2	1.83	0.78
2:B:499:ASN:HD21	2:B:538:PRO:HB3	1.46	0.78
8:O:625:ILE:HG13	12:S:264:MET:HE3	1.66	0.78
16:D:602:MET:HG3	16:D:609:TYR:HB3	1.65	0.77
14:I:783:PRO:HB2	14:I:810:LEU:HG	1.64	0.77
14:I:940:ILE:HG23	14:I:969:LEU:HG	1.66	0.77
20:M:43:LYS:HE2	20:M:46:TYR:N	1.99	0.77
1:A:1354:GLN:O	1:A:1358:GLN:HB2	1.84	0.77
8:O:561:LEU:HD21	9:P:562:GLU:HG3	1.65	0.77
13:T:10:VAL:HA	13:T:85:LEU:HB3	1.64	0.77
14:i:1163:ARG:HB3	14:i:1166:GLU:HB3	1.65	0.77
4:j:688:ILE:HG13	4:j:706:HIS:HD1	1.50	0.77
2:B:392:ALA:HB1	2:B:394:MET:HE2	1.66	0.77
3:H:62:GLY:HA2	3:H:89:LEU:HB2	1.65	0.77
10:Q:53:VAL:HA	10:Q:75:ASP:O	1.84	0.77
14:I:461:LEU:O	14:I:472:ILE:HA	1.84	0.77
4:j:560:LEU:HB3	4:j:567:LEU:HB3	1.66	0.77
14:I:1731:ARG:O	14:I:1735:ASN:HB2	1.83	0.77
17:E:1286:TYR:HE2	17:E:1318:ALA:HB1	1.50	0.77
18:F:519:ARG:HH12	18:F:546:GLN:HE22	1.33	0.77
1:A:740:LEU:HB3	1:A:742:LYS:HG3	1.65	0.77
14:i:1171:PHE:HB2	14:i:1180:ALA:HB2	1.65	0.77
1:A:481:ILE:HG21	1:A:502:THR:HG21	1.67	0.76
1:A:857:SER:HB3	1:A:860:LEU:HB3	1.66	0.76
14:i:118:SER:HB2	14:i:163:LEU:H	1.50	0.76
10:Q:177:ALA:O	10:Q:181:SER:HB3	1.84	0.76
18:f:443:THR:HG21	18:f:474:ARG:HB3	1.67	0.76
17:E:1336:PRO:HG2	17:E:1341:ILE:HG13	1.67	0.76
4:J:1:MET:HG3	4:J:260:TYR:HB2	1.67	0.76
17:E:343:LYS:HE2	17:E:355:ARG:HH11	1.49	0.76
11:R:15:MET:HG3	11:R:48:VAL:HB	1.68	0.76
18:F:277:PRO:O	18:F:280:LEU:HB2	1.86	0.76
2:B:394:MET:HE3	2:B:668:ILE:HB	1.66	0.75
10:Q:95:TYR:HB3	10:Q:182:ILE:HD12	1.67	0.75
12:S:264:MET:HG2	12:S:266:MET:H	1.50	0.75
15:C:800:LEU:HG	15:C:807:ARG:HA	1.68	0.75
18:F:368:LYS:HG2	20:M:469:ASP:HB3	1.67	0.75
14:I:1602:LYS:HD3	14:I:1666:ILE:HA	1.68	0.75
11:R:43:PHE:HB3	11:R:118:GLN:HA	1.68	0.75
1:A:734:ALA:HB2	1:A:750:LEU:HB2	1.66	0.75
17:E:265:SER:HA	17:E:268:ARG:HE	1.51	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:f:163:GLU:HG3	18:f:183:LEU:HD13	1.68	0.75
14:i:263:GLY:HA2	14:i:268:PHE:HA	1.67	0.75
18:F:237:TYR:HA	18:F:240:ALA:HB3	1.69	0.75
9:P:502:LYS:HA	15:C:1112:MET:HE3	1.69	0.75
16:D:834:LEU:O	16:D:838:MET:HB3	1.87	0.75
15:C:637:ALA:O	15:C:641:ALA:HB2	1.86	0.74
4:J:654:GLU:HB2	4:J:682:ARG:HE	1.52	0.74
14:i:1280:SER:HB3	14:i:1291:LYS:HA	1.70	0.74
1:A:1155:LYS:H	1:A:1362:SER:HB3	1.51	0.74
14:I:694:GLN:HG2	14:I:722:ASN:HA	1.67	0.74
19:G:473:TYR:HB3	19:G:495:LEU:HG	1.69	0.74
11:R:75:CYS:HB3	11:R:111:TYR:HB2	1.69	0.74
19:G:118:LEU:HB3	19:G:134:GLN:HG2	1.68	0.74
4:J:28:LEU:O	4:J:40:TRP:HB2	1.87	0.74
3:H:286:LEU:HD23	20:M:451:LEU:HD13	1.69	0.74
18:f:182:GLU:HB2	19:g:594:VAL:HA	1.68	0.74
9:P:517:GLN:HG2	15:C:1001:SER:HB3	1.70	0.74
16:D:502:VAL:HG22	16:D:511:ILE:HG23	1.67	0.74
14:I:1192:ALA:HA	14:I:1195:ARG:HD3	1.69	0.74
1:A:680:LYS:HA	1:A:683:ARG:HH21	1.54	0.73
15:C:532:GLN:HE21	16:D:378:ARG:HH12	1.33	0.73
15:C:1047:VAL:HG21	15:C:1118:ILE:HD12	1.71	0.73
2:B:506:MET:HE1	2:B:513:LEU:HD21	1.70	0.73
13:T:122:ILE:HA	13:T:149:VAL:O	1.89	0.73
4:J:111:ARG:HD2	4:J:152:VAL:HA	1.70	0.73
17:E:609:ALA:HA	17:E:620:ASP:HB3	1.71	0.73
14:I:1209:LEU:HB2	14:I:1232:ALA:HB2	1.71	0.73
14:I:1248:TRP:HH2	14:I:1270:LEU:HB2	1.54	0.72
3:H:120:ARG:HD2	3:H:123:HIS:HB3	1.70	0.72
7:N:156:GLN:HG3	7:N:160:LEU:HB2	1.71	0.72
4:j:658:ALA:HB2	4:j:673:ILE:HD11	1.72	0.72
16:D:1076:PHE:O	16:D:1077:TYR:C	2.32	0.72
3:h:297:THR:HA	18:f:272:ARG:HH21	1.55	0.72
14:i:900:PHE:O	14:i:902:LYS:NZ	2.22	0.72
6:L:66:LYS:HE2	7:N:106:LYS:HA	1.71	0.72
4:j:267:ASP:H	6:l:71:GLY:HA3	1.55	0.72
18:F:636:SER:HB2	18:F:645:TRP:NE1	2.05	0.72
1:A:419:ASN:HA	1:A:443:ILE:HG13	1.72	0.72
2:B:710:MET:HG3	2:B:717:THR:HG23	1.70	0.72
1:A:125:VAL:O	1:A:132:VAL:HA	1.90	0.72
16:D:1063:ASP:HB2	16:D:1065:VAL:HG23	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:120:VAL:HG22	14:I:163:LEU:HB3	1.72	0.71
17:E:941:ALA:HB2	17:E:956:LEU:HB2	1.71	0.71
14:I:969:LEU:HD13	14:I:970:THR:HG22	1.72	0.71
14:i:1190:TRP:HB3	14:i:1208:ILE:HG23	1.71	0.71
3:H:383:CYS:HG	12:S:299:HIS:HE2	1.36	0.71
11:R:64:SER:O	11:R:99:GLN:HB2	1.89	0.71
14:i:246:ARG:HB3	14:i:293:ALA:HB2	1.70	0.71
7:n:250:GLY:HA2	20:m:427:GLN:HE22	1.55	0.71
15:C:344:VAL:O	15:C:350:VAL:HA	1.90	0.71
17:E:1316:LEU:HA	17:E:1351:MET:HE2	1.72	0.71
2:B:28:LEU:HA	2:B:41:TYR:O	1.89	0.71
4:j:28:LEU:HB3	4:j:40:TRP:HB2	1.71	0.71
4:j:428:THR:HG21	4:j:492:VAL:HG11	1.72	0.71
2:B:710:MET:HB2	2:B:748:VAL:HG11	1.72	0.71
3:H:294:ARG:H	18:F:372:LEU:HB3	1.56	0.71
17:E:15:GLU:HB3	17:E:255:ILE:HG22	1.73	0.71
4:J:730:PHE:O	4:J:734:ASN:HB2	1.91	0.71
2:B:1281:VAL:HG12	2:B:1321:ILE:HG23	1.72	0.70
12:S:212:GLU:N	19:G:59:TYR:HH	1.88	0.70
14:i:1158:LEU:HD22	14:i:1163:ARG:HG3	1.72	0.70
8:O:472:GLU:O	8:O:476:MET:HB3	1.91	0.70
3:h:58:ILE:HG13	3:h:249:LYS:HG2	1.72	0.70
16:D:834:LEU:HD23	16:D:851:ILE:HG21	1.74	0.70
4:J:233:VAL:HG12	4:J:244:VAL:HG12	1.73	0.70
8:O:477:GLN:HA	8:O:480:ASN:HB2	1.73	0.70
17:E:1331:VAL:HG21	17:E:1344:GLU:HB3	1.73	0.70
18:F:238:PRO:HD3	18:F:272:ARG:HH22	1.56	0.70
13:T:43:VAL:HA	13:T:63:ASP:O	1.92	0.70
16:D:878:ILE:HG23	16:D:890:ALA:HA	1.74	0.70
3:h:76:LEU:HD11	3:h:88:ILE:HD11	1.72	0.70
14:i:206:PRO:HB3	14:i:217:ALA:HB1	1.72	0.70
5:K:492:ILE:HG12	6:L:115:LYS:HB2	1.74	0.70
17:E:930:ARG:HG3	17:E:964:HIS:HD2	1.57	0.70
19:g:312:PHE:HD2	19:g:340:TYR:HD2	1.40	0.70
4:j:424:LEU:HD11	4:j:429:ILE:HG12	1.74	0.70
19:g:493:ALA:HA	19:g:512:MET:HE1	1.72	0.70
2:B:215:LEU:HB3	2:B:227:LEU:HB2	1.74	0.69
11:R:13:VAL:HA	11:R:49:LEU:HA	1.74	0.69
18:f:225:VAL:HG21	18:f:264:ARG:HH21	1.57	0.69
16:D:534:LEU:HD11	16:D:541:LEU:HD21	1.74	0.69
2:B:1306:LEU:HD22	2:B:1321:ILE:HD13	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:405:HIS:O	14:I:413:MET:HB2	1.91	0.69
14:I:1618:ALA:HB1	14:I:1645:ILE:HD12	1.72	0.69
15:C:481:VAL:HB	15:C:491:PHE:HB3	1.75	0.69
17:E:580:LYS:HD2	17:E:924:GLU:HB2	1.73	0.69
14:I:1477:VAL:O	14:I:1481:HIS:HB2	1.92	0.69
16:D:38:LEU:HB3	16:D:70:LEU:HB3	1.74	0.69
14:I:1548:LEU:HD22	14:I:1704:PRO:HB2	1.75	0.69
4:j:525:CYS:HB2	4:j:544:ARG:HB2	1.74	0.69
15:C:1100:ILE:HG13	15:C:1127:ARG:HE	1.57	0.69
2:B:638:VAL:HG12	2:B:659:ILE:HD12	1.74	0.69
10:Q:116:GLU:HA	10:Q:119:LYS:HD3	1.73	0.69
17:E:231:LEU:HD13	17:E:234:LEU:HD22	1.72	0.69
14:I:584:ILE:HA	14:I:592:VAL:O	1.92	0.69
14:i:1612:PHE:HA	14:i:1615:LEU:HB2	1.75	0.69
18:F:313:LYS:NZ	18:F:390:CYS:SG	2.66	0.69
19:G:538:ASN:HD21	19:G:557:ARG:HG2	1.58	0.69
7:n:49:GLY:HA3	7:n:73:MET:HE3	1.75	0.69
14:I:80:LEU:O	14:I:91:ILE:HA	1.93	0.69
14:I:375:ALA:HB3	14:I:382:LEU:O	1.92	0.69
18:f:516:VAL:HA	18:f:519:ARG:HG2	1.74	0.69
3:H:305:PHE:H	18:F:264:ARG:HD2	1.57	0.68
4:J:632:PHE:HB2	4:J:641:THR:HG23	1.73	0.68
5:K:425:SER:HA	6:L:55:ILE:HD11	1.74	0.68
14:i:155:PRO:HD3	14:i:182:TRP:HE1	1.58	0.68
14:i:874:MET:HG3	14:i:897:CYS:HB2	1.75	0.68
18:F:304:TYR:HA	18:F:312:MET:CB	2.22	0.68
20:M:44:LYS:O	20:M:46:TYR:CD2	2.47	0.68
14:I:18:LYS:HA	14:I:311:MET:HA	1.74	0.68
18:F:283:PHE:HB2	18:F:299:LEU:HD21	1.73	0.68
3:H:310:GLY:HA2	19:G:590:LYS:HG2	1.76	0.68
9:P:566:HIS:HA	9:P:569:HIS:HB2	1.76	0.68
3:h:322:LEU:HB2	19:g:578:LYS:HE2	1.76	0.68
14:I:1707:VAL:HG12	14:I:1708:THR:HG23	1.75	0.68
3:H:360:LEU:H	12:S:214:LYS:HE2	1.58	0.68
2:B:805:GLU:HA	2:B:808:LYS:HD2	1.76	0.68
3:H:78:LYS:HD3	3:H:81:LYS:HZ3	1.56	0.68
17:E:1251:LYS:HE2	17:E:1256:GLN:HB2	1.75	0.68
3:H:324:VAL:HG13	3:H:329:LEU:HB2	1.76	0.68
7:N:38:CYS:O	7:N:42:LEU:HB2	1.94	0.68
15:C:683:ALA:HA	15:C:696:LEU:HD13	1.76	0.68
2:B:582:CYS:O	2:B:586:ASN:HA	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:m:78:GLY:HA2	20:m:83:GLU:HG3	1.75	0.68
4:j:513:THR:H	4:j:585:ALA:HB1	1.59	0.67
2:B:75:LEU:HD13	2:B:136:MET:CG	2.24	0.67
16:D:861:CYS:HA	16:D:884:LEU:HD13	1.75	0.67
19:G:508:ALA:HA	19:G:511:LEU:HG	1.76	0.67
10:Q:193:LYS:HE3	11:R:122:GLU:H	1.59	0.67
14:i:412:CYS:HB3	14:i:423:VAL:HB	1.76	0.67
17:E:464:LEU:HD22	17:E:483:ASN:HB2	1.75	0.67
2:B:322:MET:SD	2:B:322:MET:N	2.67	0.67
18:F:163:GLU:HG3	18:F:183:LEU:HD13	1.76	0.67
18:f:682:TYR:HA	18:f:685:HIS:HB2	1.75	0.67
2:B:203:VAL:HG13	2:B:217:VAL:HG13	1.76	0.67
2:B:949:ASP:O	2:B:953:ASN:HB2	1.94	0.67
4:J:528:TYR:HA	4:J:584:PRO:HB3	1.76	0.67
1:A:449:ASN:HD22	1:A:495:LEU:HD21	1.60	0.67
3:H:185:VAL:HG11	3:H:189:ALA:HB3	1.76	0.67
14:i:691:MET:HA	14:i:694:GLN:HE21	1.59	0.67
17:E:727:LYS:HG3	17:E:729:SER:H	1.60	0.67
17:E:1315:TYR:CE2	17:E:1320:ARG:HD2	2.29	0.67
19:G:307:PHE:HB3	19:G:344:LEU:HD11	1.75	0.67
20:M:43:LYS:CE	20:M:45:PRO:HB2	2.25	0.67
1:A:1044:ALA:HB2	1:A:1059:LEU:HB2	1.76	0.67
3:h:360:LEU:HD21	19:g:24:ILE:HG22	1.75	0.67
15:C:330:ASP:HB3	15:C:347:GLN:HB3	1.75	0.67
14:I:1350:GLU:O	14:I:1353:GLN:HG2	1.94	0.67
19:g:529:LYS:HG3	19:g:618:ARG:HA	1.76	0.67
1:A:736:ILE:O	1:A:740:LEU:HB2	1.95	0.67
3:H:328:GLN:HB3	19:G:579:ARG:HH21	1.60	0.67
4:J:417:LEU:HA	4:J:421:MET:HG2	1.76	0.67
14:I:1391:ALA:HB3	14:I:1401:ILE:HD11	1.77	0.67
1:A:302:VAL:HB	1:A:313:LEU:O	1.94	0.67
1:A:404:ALA:HB3	1:A:417:MET:HA	1.77	0.67
4:J:152:VAL:HG21	4:J:193:ASP:HA	1.77	0.67
16:D:427:ALA:HB3	16:D:434:ILE:HB	1.77	0.67
3:H:34:LEU:HB3	3:H:40:PRO:HG3	1.75	0.67
3:H:345:PRO:HG3	19:G:251:TYR:HB3	1.76	0.67
1:A:518:THR:HB	9:P:525:LYS:HD2	1.76	0.66
4:J:443:PHE:HB3	4:J:492:VAL:HG13	1.77	0.66
7:N:284:GLU:HA	7:N:287:LEU:HD23	1.77	0.66
17:E:187:LEU:C	17:E:189:ALA:H	2.00	0.66
14:I:1604:MET:HE3	14:I:1608:MET:HE3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:g:223:MET:HE3	19:g:224:GLU:H	1.60	0.66
11:R:68:ARG:HB2	11:R:118:GLN:HB3	1.77	0.66
18:f:297:TYR:HE1	18:f:373:ILE:HD12	1.60	0.66
1:A:489:ASN:HD22	1:A:490:ILE:N	1.93	0.66
2:B:567:VAL:O	2:B:576:VAL:HA	1.95	0.66
4:J:639:ASP:H	4:J:642:HIS:HB2	1.60	0.66
15:C:875:ILE:HG23	15:C:886:ASP:HB3	1.76	0.66
16:D:314:SER:O	16:D:322:LEU:HA	1.94	0.66
16:D:916:LYS:O	16:D:917:GLU:HG2	1.95	0.66
18:F:636:SER:HB2	18:F:645:TRP:HE1	1.59	0.66
20:M:426:LYS:HD3	18:f:557:PHE:HB3	1.77	0.66
1:A:776:LEU:O	1:A:780:LEU:HB2	1.96	0.66
1:A:1230:LEU:HA	1:A:1235:TYR:HB2	1.77	0.66
2:B:938:HIS:HB3	2:B:947:ALA:HB2	1.78	0.66
13:T:45:ILE:HA	13:T:61:PHE:O	1.96	0.66
14:i:92:TYR:HB3	14:i:94:LEU:H	1.59	0.66
4:j:510:HIS:HB2	4:j:515:MET:HB2	1.78	0.66
15:C:1047:VAL:HG11	15:C:1118:ILE:HB	1.77	0.66
16:D:1060:ASP:HA	17:E:781:GLN:HE21	1.60	0.66
16:D:1063:ASP:C	16:D:1065:VAL:H	2.04	0.66
17:E:1286:TYR:CE2	17:E:1318:ALA:HB1	2.30	0.66
17:E:187:LEU:HG	17:E:191:LEU:HD13	1.78	0.66
17:E:209:VAL:HA	17:E:213:ILE:HD12	1.77	0.66
4:J:126:GLY:HA2	4:J:147:PRO:HA	1.76	0.66
4:j:429:ILE:HD11	4:j:446:THR:HA	1.76	0.66
16:D:894:ALA:HB2	16:D:902:ILE:HD11	1.78	0.66
17:E:349:THR:HG21	17:E:380:ALA:HB2	1.78	0.66
14:I:758:GLU:HB3	14:I:780:GLY:HA3	1.77	0.66
4:J:111:ARG:HD3	4:J:153:TRP:HD1	1.60	0.66
19:G:232:GLN:HA	19:G:235:LYS:HB2	1.78	0.66
4:J:82:CYS:SG	4:J:83:THR:N	2.69	0.66
7:n:35:VAL:HG21	7:n:89:ALA:HB1	1.77	0.66
19:G:438:PHE:O	19:G:442:ALA:HB2	1.96	0.66
1:A:802:TYR:HB3	1:A:863:GLU:HG2	1.78	0.65
2:B:3:ILE:HG12	2:B:347:PRO:HB3	1.77	0.65
17:E:889:LYS:O	17:E:890:VAL:C	2.39	0.65
19:G:59:TYR:HA	19:G:232:GLN:HB3	1.77	0.65
1:A:35:ARG:HB3	1:A:52:PHE:HB2	1.77	0.65
1:A:758:ARG:O	1:A:761:LEU:HB3	1.96	0.65
1:A:1225:GLU:HB3	16:D:784:ASP:HB2	1.77	0.65
19:G:238:ALA:HB1	19:G:241:GLU:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:474:GLU:HB3	19:G:475:PRO:HD3	1.78	0.65
4:J:638:VAL:HA	4:J:642:HIS:ND1	2.12	0.65
7:N:292:LYS:HE3	18:F:306:LEU:HD22	1.78	0.65
14:i:58:ALA:H	14:i:90:PHE:HE2	1.45	0.65
14:I:1330:ALA:HB2	14:I:1348:VAL:HG11	1.77	0.65
4:J:242:PHE:CE2	4:J:253:CYS:HB2	2.31	0.65
3:h:375:ARG:HH12	19:g:45:GLU:HB3	1.61	0.65
7:n:26:ASN:HD22	7:n:35:VAL:HA	1.61	0.65
19:g:426:TRP:CD1	19:g:432:SER:HB3	2.31	0.65
2:B:89:ASN:O	2:B:93:ARG:HA	1.96	0.65
2:B:977:ILE:O	2:B:984:LYS:HA	1.97	0.65
4:j:371:LEU:HD12	4:j:389:ASP:HB3	1.79	0.65
15:C:867:LEU:HB3	15:C:896:LEU:HD13	1.78	0.65
16:D:379:LYS:HB3	16:D:395:LYS:HB2	1.76	0.65
16:D:390:CYS:HB2	16:D:407:CYS:HB2	1.79	0.65
16:D:973:ARG:HD3	18:F:627:LYS:HG2	1.79	0.65
19:G:529:LYS:HG2	19:G:613:HIS:CE1	2.31	0.65
1:A:407:GLY:O	1:A:413:ALA:HA	1.97	0.65
2:B:715:ASP:HA	2:B:718:ARG:HD2	1.79	0.65
2:B:914:SER:HA	15:C:917:PHE:HB3	1.79	0.65
14:i:467:LEU:HD22	14:i:491:LYS:HE2	1.78	0.65
2:B:1356:ILE:HG22	2:B:1358:SER:H	1.62	0.65
7:N:292:LYS:HD3	18:F:305:ALA:H	1.61	0.65
16:D:1055:LEU:HD22	16:D:1059:GLU:HG3	1.77	0.65
1:A:1349:THR:HA	1:A:1352:LYS:HB2	1.77	0.65
14:i:263:GLY:HA3	14:i:291:PHE:HE2	1.62	0.65
14:i:1520:MET:HG2	14:i:1546:TYR:HB2	1.79	0.65
4:j:267:ASP:HB3	6:l:68:LYS:HA	1.79	0.65
17:E:509:PRO:HG2	17:E:800:ASP:HA	1.78	0.65
18:F:202:SER:H	18:F:205:LEU:HD23	1.62	0.65
14:I:517:SER:HB3	14:I:522:GLU:H	1.62	0.65
2:B:716:LYS:HD2	2:B:743:ILE:HD11	1.77	0.65
8:O:498:GLU:O	8:O:501:LYS:HG3	1.96	0.65
4:j:565:ARG:HD3	4:j:577:SER:HB2	1.79	0.65
19:G:266:MET:HE2	19:G:269:ARG:HB2	1.79	0.65
14:I:158:SER:OG	14:I:176:HIS:ND1	2.29	0.65
14:I:306:MET:HB2	14:I:318:TYR:HB2	1.78	0.65
14:I:1573:THR:HG21	14:I:1604:MET:HE2	1.77	0.65
18:f:261:LYS:O	18:f:265:ASN:ND2	2.30	0.65
1:A:345:GLN:HE21	1:A:364:PRO:HD2	1.62	0.64
4:J:2:ARG:HA	4:J:263:ILE:HG13	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:194:TRP:HB2	4:J:201:ILE:HG13	1.79	0.64
6:L:31:GLN:HG2	7:N:144:ILE:HA	1.79	0.64
3:h:375:ARG:NH1	19:g:44:PRO:O	2.30	0.64
4:j:381:ALA:HB3	4:j:384:HIS:HE1	1.61	0.64
16:D:589:ASP:HB2	16:D:603:MET:HE3	1.78	0.64
14:I:1679:LYS:HG2	14:I:1690:GLU:HA	1.79	0.64
18:f:294:GLN:HB2	18:f:365:LEU:HD11	1.77	0.64
6:L:55:ILE:HG21	7:N:122:ILE:HG12	1.79	0.64
7:N:60:SER:HA	7:N:87:TYR:CE2	2.31	0.64
15:C:1107:PHE:HA	15:C:1110:GLN:HE21	1.61	0.64
19:G:525:GLN:NE2	19:G:530:PRO:O	2.30	0.64
14:I:1405:TYR:O	14:I:1436:ARG:NH2	2.30	0.64
14:I:1718:VAL:O	14:I:1728:ASN:HA	1.98	0.64
20:M:404:MET:HA	20:M:407:GLU:HG2	1.78	0.64
14:i:1249:ASN:HD21	14:i:1287:ALA:HB1	1.62	0.64
4:j:272:MET:N	4:j:272:MET:SD	2.70	0.64
19:G:204:ILE:HD13	19:G:239:LEU:HD22	1.78	0.64
14:I:1417:GLU:O	14:I:1421:ARG:HB2	1.97	0.64
20:M:44:LYS:NZ	20:M:46:TYR:HE2	1.95	0.64
8:O:608:PHE:HB3	9:P:613:GLN:HE21	1.61	0.64
16:D:659:THR:H	16:D:688:ARG:HH12	1.44	0.64
14:I:730:ARG:HH12	14:I:756:GLN:HB3	1.63	0.64
4:J:339:LYS:HB2	4:J:350:ALA:HB3	1.80	0.64
4:j:261:SER:HB2	6:l:81:GLU:HG2	1.79	0.64
5:k:494:ARG:HH12	6:l:115:LYS:HG3	1.62	0.64
7:n:234:ARG:HB3	7:n:235:PRO:HD2	1.79	0.64
16:D:434:ILE:HA	16:D:442:TYR:O	1.97	0.64
17:E:941:ALA:HB1	17:E:953:ALA:HA	1.79	0.64
14:I:1413:GLN:O	14:I:1417:GLU:HB3	1.97	0.64
18:f:355:MET:HG2	19:g:640:LYS:HB3	1.78	0.64
8:O:499:LEU:HA	8:O:502:ILE:HG12	1.78	0.64
16:D:610:ILE:HG23	16:D:617:GLU:HB3	1.80	0.64
17:E:468:ALA:HB2	17:E:482:LEU:HD13	1.79	0.64
3:H:328:GLN:HG2	19:G:586:GLU:HG3	1.78	0.64
4:J:625:LEU:O	4:J:629:GLU:HB2	1.98	0.64
7:N:216:LYS:HE3	20:M:390:GLU:HB3	1.78	0.64
18:F:653:TYR:HB3	18:F:658:ASN:HB3	1.80	0.64
14:I:472:ILE:HD11	14:I:504:LEU:HD22	1.78	0.64
14:I:1230:ILE:HD11	14:I:1254:VAL:HG22	1.80	0.64
14:i:300:LYS:HZ3	14:i:302:ASP:HB2	1.61	0.64
14:i:459:LYS:HB3	14:i:476:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:1193:PRO:HB2	17:E:1222:VAL:HA	1.80	0.64
1:A:1305:ALA:HA	1:A:1343:LYS:HA	1.80	0.64
3:h:321:LYS:HB3	19:g:578:LYS:HD3	1.80	0.64
17:E:937:CYS:HB3	17:E:956:LEU:HB3	1.80	0.64
17:E:1306:GLN:HG2	17:E:1338:TYR:CE2	2.32	0.64
2:B:977:ILE:HD11	2:B:989:GLY:HA3	1.80	0.64
4:J:141:LEU:HD11	4:J:160:LEU:HD22	1.80	0.64
4:J:604:ARG:HD3	4:J:635:ILE:HA	1.80	0.64
7:n:236:ALA:HB2	20:m:412:ILE:HG23	1.80	0.64
17:E:897:MET:HG3	17:E:899:GLY:H	1.63	0.64
14:I:842:TYR:HB3	14:I:864:TRP:NE1	2.13	0.64
14:I:1596:TRP:HB2	14:I:1605:ALA:HB2	1.79	0.64
3:H:88:ILE:HD12	3:H:106:LEU:HD21	1.80	0.63
7:N:150:LEU:HD22	17:E:595:ASN:HA	1.79	0.63
3:h:394:MET:HE1	3:h:412:HIS:HB2	1.80	0.63
18:f:271:VAL:HB	18:f:301:MET:HG2	1.80	0.63
1:A:1280:LEU:HB3	1:A:1289:LEU:H	1.63	0.63
3:H:72:GLU:HA	3:H:75:MET:HG2	1.80	0.63
7:N:84:LYS:HA	7:N:87:TYR:HB3	1.80	0.63
4:j:629:GLU:HB3	4:j:648:LYS:HD3	1.80	0.63
18:F:419:GLN:HB3	18:F:422:LYS:HB3	1.80	0.63
3:H:182:THR:HA	3:H:206:VAL:HA	1.79	0.63
4:J:16:LEU:HA	4:J:290:GLY:HA2	1.79	0.63
4:J:625:LEU:HD11	4:J:657:ASN:ND2	2.13	0.63
3:h:106:LEU:HA	3:h:109:PHE:HD2	1.63	0.63
1:A:17:VAL:HG21	1:A:354:GLY:HA2	1.79	0.63
2:B:672:ALA:HB3	2:B:718:ARG:HH21	1.62	0.63
3:H:1:MET:HA	3:H:246:LYS:HB3	1.81	0.63
3:H:299:LEU:HB3	20:M:467:GLU:HB3	1.80	0.63
13:T:86:MET:HG3	13:T:119:VAL:HG22	1.81	0.63
16:D:973:ARG:HH12	18:F:630:PRO:HB2	1.62	0.63
4:J:232:SER:HB2	4:J:274:LEU:HB2	1.81	0.63
9:P:509:ILE:O	9:P:513:ARG:NH1	2.31	0.63
15:C:470:LEU:O	15:C:481:VAL:HA	1.97	0.63
14:I:607:LEU:HD11	14:I:631:GLN:HE22	1.64	0.63
1:A:813:LEU:HB2	1:A:831:CYS:SG	2.38	0.63
4:J:256:MET:HE2	4:J:569:ARG:HH21	1.64	0.63
14:i:1662:LEU:HA	14:i:1665:GLU:HB2	1.80	0.63
17:E:1102:ASP:O	17:E:1103:THR:C	2.42	0.63
18:f:526:ALA:HA	18:f:529:ALA:HB3	1.81	0.63
12:S:282:VAL:HA	12:S:286:LEU:HB2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:h:192:VAL:HG21	3:h:244:PHE:HZ	1.64	0.63
15:C:541:SER:HB3	15:C:557:PRO:HA	1.79	0.63
17:E:968:VAL:HA	17:E:971:MET:HE2	1.81	0.63
19:G:74:VAL:HG21	19:G:84:LYS:HG3	1.81	0.63
14:I:513:LEU:HB3	14:I:527:LEU:HB2	1.81	0.63
19:g:426:TRP:HD1	19:g:432:SER:HB3	1.63	0.63
1:A:157:ALA:HB3	1:A:196:LEU:HD22	1.80	0.63
1:A:728:ASP:HB3	1:A:731:LEU:HB3	1.79	0.63
4:J:433:ASP:HB3	4:J:441:VAL:HA	1.79	0.63
14:i:919:PHE:HB3	14:i:942:ALA:HB2	1.80	0.63
19:g:84:LYS:HE3	19:g:107:VAL:HG13	1.80	0.63
2:B:350:PHE:H	2:B:398:VAL:HG21	1.64	0.63
3:h:87:LEU:HD12	3:h:248:LEU:HD13	1.81	0.63
14:i:69:ARG:HB3	14:i:161:VAL:HG13	1.79	0.63
4:j:487:LEU:HB3	4:j:501:ALA:HB3	1.80	0.63
14:I:1404:GLN:HA	14:I:1407:ASN:HB2	1.80	0.63
1:A:1123:LEU:HD21	1:A:1157:PRO:HD2	1.81	0.62
3:H:411:LYS:O	3:H:413:VAL:N	2.32	0.62
4:J:408:ARG:NH2	14:i:483:LEU:O	2.32	0.62
8:O:422:PHE:HA	8:O:425:ARG:HB2	1.79	0.62
8:O:502:ILE:HG13	9:P:497:ALA:HB1	1.81	0.62
3:h:85:SER:HB2	3:h:216:GLY:HA3	1.80	0.62
14:I:1270:LEU:HD22	14:I:1351:ARG:HG3	1.81	0.62
1:A:1146:VAL:HG13	1:A:1156:PRO:HG3	1.80	0.62
2:B:746:PRO:HB3	2:B:772:MET:HA	1.80	0.62
2:B:1241:ASP:HA	2:B:1322:ARG:HD2	1.80	0.62
3:H:302:ASP:HB2	20:M:468:GLU:HB2	1.80	0.62
8:O:447:MET:HA	8:O:450:MET:HE2	1.81	0.62
14:i:791:MET:HB3	14:i:822:LEU:HB2	1.80	0.62
4:j:590:MET:HB3	4:j:595:GLN:HB2	1.81	0.62
17:E:454:LEU:HG	17:E:494:LEU:HB2	1.81	0.62
19:g:500:ILE:HG22	19:g:506:GLU:H	1.64	0.62
1:A:248:MET:HE2	1:A:261:GLY:HA3	1.79	0.62
1:A:1092:VAL:HG11	1:A:1104:PHE:HB2	1.81	0.62
2:B:672:ALA:HB3	2:B:673:PRO:HD3	1.80	0.62
9:P:498:ILE:HD11	15:C:1112:MET:HB3	1.79	0.62
14:i:1722:ASN:HB3	14:i:1726:GLU:HA	1.82	0.62
17:E:12:TYR:CD1	17:E:254:ASN:HB2	2.34	0.62
18:f:152:ALA:HB3	18:f:198:ASN:HD21	1.65	0.62
14:i:1564:LEU:HD13	14:i:1567:ILE:HD12	1.80	0.62
16:D:1:MET:HG2	16:D:300:LEU:HD13	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:50:GLY:HA2	17:E:82:SER:HB2	1.82	0.62
17:E:1162:ARG:HH11	17:E:1184:VAL:HG13	1.64	0.62
18:f:654:ARG:NH1	18:f:666:TYR:OH	2.32	0.62
18:f:677:VAL:HA	18:f:680:LEU:HB2	1.80	0.62
9:P:488:SER:OG	15:C:1102:ARG:NH2	2.32	0.62
17:E:844:GLY:HA3	17:E:860:ILE:HG13	1.81	0.62
1:A:1220:LYS:HA	1:A:1223:ALA:HB3	1.81	0.62
12:S:303:THR:HA	12:S:306:LEU:HD12	1.80	0.62
3:h:287:GLN:HB3	18:f:412:THR:HB	1.80	0.62
3:h:331:LEU:HD12	19:g:544:LEU:HB2	1.82	0.62
15:C:595:LEU:HD22	15:C:640:MET:HB3	1.80	0.62
14:I:973:GLU:HA	14:I:976:ALA:HB3	1.82	0.62
14:I:1216:ALA:HA	14:I:1219:ARG:HG2	1.81	0.62
18:f:374:SER:HA	18:f:382:GLY:HA2	1.82	0.62
2:B:616:GLN:NE2	2:B:667:CYS:O	2.32	0.62
4:J:625:LEU:HB2	4:J:764:TYR:CE1	2.35	0.62
9:P:499:ASN:O	9:P:503:GLN:NE2	2.32	0.62
13:T:18:LYS:HE2	13:T:65:SER:HA	1.82	0.62
4:j:2:ARG:NH2	4:j:299:ASP:OD2	2.32	0.62
16:D:695:GLU:HA	16:D:698:LEU:HD12	1.82	0.62
20:M:44:LYS:HZ3	20:M:46:TYR:HE2	1.42	0.62
19:g:313:ALA:HB2	19:g:344:LEU:HD23	1.82	0.62
4:j:674:LEU:HB3	4:j:686:LEU:HD23	1.80	0.62
18:F:374:SER:HA	18:F:387:PHE:HB3	1.82	0.62
14:I:619:LEU:HD22	14:I:622:LEU:HB3	1.82	0.62
14:I:1371:ALA:HB1	14:I:1374:ALA:HB3	1.81	0.62
3:H:1:MET:O	3:H:249:LYS:NZ	2.33	0.62
6:L:103:ARG:NH1	6:L:106:MET:SD	2.73	0.62
7:N:270:GLU:HB3	20:M:448:GLN:HG3	1.81	0.62
4:j:41:ASN:HB2	4:j:45:GLU:HB2	1.82	0.62
7:n:71:GLN:HB2	7:n:83:ILE:HD11	1.82	0.62
17:E:5:VAL:HG12	17:E:8:LEU:HD12	1.82	0.62
14:I:1713:GLN:HB2	14:I:1716:ASP:HB2	1.82	0.62
2:B:804:ILE:HG22	2:B:808:LYS:HE3	1.82	0.62
5:K:450:TYR:HB3	6:L:72:LEU:HB3	1.82	0.62
12:S:216:LYS:HE2	12:S:217:LYS:HE3	1.82	0.62
14:i:1665:GLU:HA	14:i:1668:MET:HG2	1.82	0.62
4:j:464:GLU:HB3	4:j:481:ILE:HB	1.82	0.62
7:n:38:CYS:HA	7:n:41:TRP:CD1	2.35	0.62
15:C:154:ALA:HA	15:C:164:ILE:HA	1.79	0.62
16:D:1055:LEU:HD23	16:D:1058:TYR:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:414:VAL:HB	14:I:421:HIS:HB2	1.82	0.62
1:A:976:SER:HB2	1:A:992:LEU:HG	1.80	0.61
1:A:1093:ASN:HA	1:A:1101:ARG:HG3	1.82	0.61
2:B:325:LYS:HB3	2:B:344:GLU:HG3	1.80	0.61
3:H:158:GLU:HA	3:H:162:SER:HB2	1.80	0.61
16:D:184:VAL:HG11	16:D:231:ILE:HD13	1.81	0.61
17:E:709:ALA:HA	17:E:712:ARG:HB3	1.82	0.61
19:G:53:LEU:O	19:G:57:TYR:HB2	2.00	0.61
18:f:596:HIS:HA	18:f:599:GLN:HB2	1.82	0.61
19:g:298:LEU:HD21	19:g:318:LEU:HD23	1.80	0.61
1:A:648:LEU:HA	1:A:662:ARG:HG3	1.82	0.61
1:A:852:ALA:HB1	1:A:861:PHE:HE1	1.64	0.61
2:B:935:VAL:HA	2:B:938:HIS:HB2	1.81	0.61
3:H:176:VAL:HG22	3:H:235:GLU:HG3	1.81	0.61
11:R:38:VAL:HA	11:R:125:THR:HG22	1.81	0.61
4:j:302:LEU:HG	4:j:575:LEU:HB2	1.80	0.61
15:C:164:ILE:HB	15:C:173:HIS:HB2	1.81	0.61
15:C:542:LYS:HE2	15:C:557:PRO:HB3	1.82	0.61
14:I:1123:ILE:HD13	14:I:1150:VAL:HG21	1.81	0.61
19:g:175:TYR:O	19:g:206:LYS:NZ	2.32	0.61
3:h:35:ARG:HG3	3:h:40:PRO:HB3	1.81	0.61
3:h:141:ARG:HA	3:h:144:ILE:HB	1.82	0.61
3:h:340:LEU:HD13	19:g:320:CYS:HB3	1.82	0.61
14:i:815:LEU:HB3	14:i:818:ARG:HH12	1.65	0.61
4:j:705:GLN:O	4:j:706:HIS:HB2	2.00	0.61
19:G:26:GLU:HA	19:G:212:PRO:HG2	1.83	0.61
19:g:531:CYS:HB2	19:g:563:GLU:HG3	1.80	0.61
2:B:505:SER:OG	2:B:554:MET:SD	2.58	0.61
2:B:604:MET:HG3	2:B:670:SER:HB2	1.81	0.61
3:H:12:LEU:HD13	3:H:56:ALA:HB2	1.83	0.61
3:H:360:LEU:HB2	19:G:52:LEU:HB2	1.82	0.61
4:J:754:LYS:NZ	4:J:755:GLU:OE2	2.33	0.61
9:P:633:MET:HA	9:P:636:LEU:HB2	1.81	0.61
10:Q:20:ALA:HB2	10:Q:93:VAL:HG11	1.80	0.61
11:R:57:VAL:O	11:R:106:ASN:HA	2.00	0.61
3:h:190:VAL:HG11	3:h:260:ASP:HB3	1.82	0.61
18:F:445:LEU:O	18:F:449:TYR:N	2.34	0.61
14:I:1110:ALA:O	14:I:1114:LYS:HB2	2.00	0.61
19:g:83:TYR:HA	19:g:86:TYR:HB2	1.82	0.61
19:g:180:LEU:HB2	19:g:203:ILE:HD11	1.81	0.61
4:j:2:ARG:HG3	4:j:298:VAL:HG13	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:66:SER:HA	17:E:101:GLU:HB3	1.82	0.61
3:H:420:ARG:HB2	12:S:321:GLU:HG2	1.82	0.61
4:J:6:LYS:HB3	4:J:294:PHE:HB2	1.82	0.61
3:h:89:LEU:HG	3:h:221:LEU:HB2	1.83	0.61
4:j:398:THR:HG23	4:j:400:GLU:H	1.65	0.61
15:C:693:VAL:HA	15:C:696:LEU:HD12	1.80	0.61
15:C:1011:TRP:HE1	15:C:1043:HIS:HB3	1.66	0.61
17:E:817:TYR:O	17:E:821:ILE:HG23	2.00	0.61
18:f:127:ARG:HH11	18:f:130:GLU:HB3	1.66	0.61
1:A:375:LEU:HB2	1:A:408:LEU:HD22	1.83	0.61
1:A:766:ASP:HB3	2:B:778:ALA:HB1	1.82	0.61
14:i:89:VAL:HG11	14:i:119:LEU:HD22	1.82	0.61
14:i:782:LEU:HD23	14:i:785:ARG:HE	1.65	0.61
4:j:2:ARG:HB3	6:l:85:ARG:HD2	1.81	0.61
15:C:1012:ARG:HD3	15:C:1032:ALA:HB2	1.81	0.61
17:E:201:LYS:HD2	17:E:202:GLN:HB2	1.82	0.61
2:B:4:TYR:HB3	2:B:378:CYS:HB3	1.83	0.61
2:B:227:LEU:HD23	2:B:238:THR:HA	1.83	0.61
2:B:724:PHE:HE1	2:B:764:VAL:HG21	1.66	0.61
16:D:584:ARG:HD2	16:D:609:TYR:HE2	1.65	0.61
16:D:1076:PHE:CZ	17:E:1104:ARG:HB2	2.36	0.61
2:B:608:VAL:HG21	2:B:672:ALA:HB2	1.83	0.61
4:J:597:ASP:HB2	5:K:503:LEU:HB2	1.83	0.61
7:N:184:ALA:HB2	20:M:359:LEU:HD22	1.82	0.61
4:j:2:ARG:NH1	6:l:82:GLU:O	2.33	0.61
16:D:612:ARG:O	16:D:615:ASP:HB2	2.00	0.61
17:E:1197:PRO:HB2	17:E:1198:VAL:HG13	1.82	0.61
17:E:1330:LYS:HA	17:E:1333:LYS:HE2	1.82	0.61
18:F:602:HIS:CD2	18:F:638:ILE:HB	2.36	0.61
14:I:1596:TRP:CB	14:I:1605:ALA:HB2	2.31	0.61
18:f:137:LEU:HB3	19:g:592:MET:HE2	1.83	0.61
20:m:97:CYS:HB3	20:m:119:LEU:HD13	1.82	0.61
20:m:451:LEU:HA	20:m:454:LYS:HB3	1.82	0.61
2:B:445:TYR:HA	2:B:455:PRO:HA	1.83	0.61
3:H:182:THR:HG22	3:H:206:VAL:HG12	1.83	0.61
4:J:79:ALA:HA	4:J:88:LYS:O	2.01	0.61
4:J:424:LEU:HD22	4:J:429:ILE:HB	1.82	0.61
14:i:42:LEU:HD22	14:i:97:PRO:HD2	1.83	0.61
14:i:660:LYS:HE3	14:i:663:PHE:CD1	2.36	0.61
4:j:635:ILE:HG13	4:j:640:LYS:HE2	1.83	0.61
17:E:994:LEU:HG	17:E:1011:LEU:HD11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:1320:ARG:HE	17:E:1321:TYR:H	1.48	0.61
6:L:120:LEU:HD13	14:I:782:LEU:H	1.66	0.60
10:Q:35:MET:HE1	10:Q:168:ALA:HA	1.82	0.60
14:i:657:ASP:C	14:i:659:ALA:N	2.58	0.60
14:i:1091:ASN:HB2	14:I:1144:LYS:HE3	1.81	0.60
4:j:298:VAL:HG23	4:j:312:VAL:HG13	1.83	0.60
4:j:673:ILE:HA	4:j:676:GLN:HG2	1.82	0.60
16:D:44:ASP:O	16:D:321:ARG:NH2	2.34	0.60
14:I:343:VAL:HG21	14:I:373:LEU:HD21	1.83	0.60
14:I:817:GLU:HB2	14:I:841:ALA:HB2	1.82	0.60
2:B:651:ILE:O	2:B:759:ASN:ND2	2.30	0.60
4:J:133:ARG:NH1	14:i:465:ILE:O	2.34	0.60
18:F:300:VAL:HG22	18:F:316:PHE:HA	1.82	0.60
14:I:693:ALA:HB3	14:I:722:ASN:HD21	1.66	0.60
20:M:44:LYS:NZ	20:M:46:TYR:CE2	2.69	0.60
20:M:84:LEU:HD22	20:M:99:ASN:HB3	1.83	0.60
18:f:407:GLU:HA	18:f:410:LYS:HB2	1.83	0.60
1:A:716:MET:HE1	1:A:740:LEU:HG	1.83	0.60
1:A:1316:ALA:HA	1:A:1341:VAL:HG11	1.82	0.60
14:i:330:LYS:HD2	14:i:347:LYS:HD3	1.83	0.60
4:j:671:GLU:OE2	4:j:695:ARG:NH1	2.34	0.60
14:I:692:MET:SD	14:I:698:GLN:HB2	2.40	0.60
2:B:968:GLU:HG2	2:B:985:ARG:HE	1.66	0.60
14:i:1270:LEU:HD22	14:i:1293:ARG:HB3	1.83	0.60
4:j:4:LYS:HE3	4:j:296:GLN:HB2	1.82	0.60
15:C:541:SER:H	15:C:558:GLN:H	1.47	0.60
18:F:197:MET:N	18:F:197:MET:SD	2.68	0.60
18:F:518:GLN:HE22	18:F:546:GLN:HB3	1.66	0.60
14:I:24:TRP:HB3	14:I:301:PRO:HD3	1.84	0.60
14:I:490:THR:HG21	14:I:510:LYS:HG3	1.82	0.60
19:g:35:HIS:HE1	19:g:52:LEU:HD22	1.65	0.60
2:B:29:LEU:HB3	2:B:41:TYR:HB2	1.83	0.60
2:B:1307:LEU:HD11	2:B:1330:MET:HE1	1.84	0.60
5:K:492:ILE:HD13	6:L:111:LEU:HB3	1.81	0.60
3:h:120:ARG:O	7:n:258:ARG:NH2	2.34	0.60
3:h:410:ALA:HB3	12:s:275:ILE:HD12	1.82	0.60
7:n:260:ARG:HD3	20:m:438:ARG:HH21	1.66	0.60
15:C:440:LYS:HE3	16:D:857:SER:HB2	1.83	0.60
17:E:194:ALA:HA	17:E:197:MET:HE2	1.84	0.60
17:E:887:LEU:HD23	17:E:890:VAL:HA	1.82	0.60
1:A:175:LEU:HD12	1:A:185:LYS:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1116:ALA:O	1:A:1120:ARG:HB2	2.00	0.60
2:B:300:VAL:HA	2:B:316:THR:HG22	1.83	0.60
3:H:42:LYS:O	7:n:286:ARG:NH2	2.34	0.60
4:J:42:MET:O	4:J:282:GLN:NE2	2.34	0.60
10:Q:34:SER:O	10:Q:38:SER:HB2	2.02	0.60
3:h:58:ILE:HG23	3:h:87:LEU:HB2	1.84	0.60
14:i:652:TYR:HB3	14:i:660:LYS:HB3	1.83	0.60
15:C:62:ILE:HD13	15:C:76:SER:HB2	1.83	0.60
15:C:1047:VAL:HG23	15:C:1151:MET:HE2	1.84	0.60
14:I:362:ILE:HG23	14:I:377:THR:HG22	1.84	0.60
14:I:403:LYS:HB2	14:I:415:HIS:HB3	1.83	0.60
14:I:422:ILE:HG21	14:I:475:LEU:HD13	1.84	0.60
14:I:1365:HIS:HB3	14:I:1374:ALA:HB2	1.83	0.60
4:J:440:THR:HA	4:J:457:GLN:HA	1.84	0.60
8:O:502:ILE:HD12	9:P:501:ARG:HG2	1.84	0.60
9:P:510:LYS:HG3	15:C:1015:THR:HG23	1.84	0.60
3:h:33:ARG:NH2	3:h:233:ASP:OD1	2.34	0.60
14:i:949:VAL:HA	14:i:952:TYR:HB2	1.84	0.60
15:C:1144:PRO:O	15:C:1146:GLN:NE2	2.35	0.60
16:D:1083:GLN:HE21	16:D:1087:ALA:HB2	1.66	0.60
17:E:1322:VAL:HG12	17:E:1350:ARG:HD2	1.82	0.60
18:f:379:ARG:NH2	18:f:382:GLY:O	2.35	0.60
20:m:447:LEU:O	20:m:451:LEU:N	2.35	0.60
3:H:47:ASP:HB3	7:n:291:GLN:HG3	1.84	0.60
3:h:343:LEU:HD21	19:g:318:LEU:HB2	1.82	0.60
15:C:1012:ARG:HG3	15:C:1111:MET:SD	2.42	0.60
17:E:836:GLN:HA	17:E:839:LEU:HB2	1.82	0.60
19:G:478:LYS:HD2	19:G:514:LYS:HD2	1.84	0.60
19:G:526:ASP:HB3	19:G:532:PHE:HD1	1.65	0.60
14:I:682:GLY:HA2	14:I:685:ALA:HB3	1.84	0.60
1:A:685:VAL:HG13	1:A:711:ILE:HG12	1.82	0.60
14:i:724:ARG:NH1	4:j:634:ALA:O	2.35	0.60
15:C:459:ARG:HD2	15:C:475:GLU:HA	1.84	0.60
15:C:1044:LEU:HD21	15:C:1167:GLU:HB2	1.83	0.60
15:C:1074:ARG:NH1	15:C:1099:GLU:OE1	2.35	0.60
17:E:204:GLY:H	17:E:207:LEU:HB3	1.67	0.60
19:G:512:MET:HA	19:G:515:VAL:HG22	1.83	0.60
14:I:1665:GLU:HA	14:I:1668:MET:HG3	1.82	0.60
1:A:963:VAL:HG22	1:A:971:ALA:HB1	1.84	0.60
7:N:219:GLU:HB2	20:M:394:ILE:HG12	1.84	0.60
7:N:245:GLN:NE2	18:f:587:ARG:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:636:ALA:HB2	14:i:655:LEU:HD21	1.82	0.60
14:i:800:PRO:HA	14:i:803:LEU:HB2	1.84	0.60
15:C:1074:ARG:HA	15:C:1077:ARG:HH21	1.67	0.60
16:D:98:ILE:HB	16:D:114:ASN:HB2	1.83	0.60
16:D:1018:ALA:HB3	17:E:751:ALA:HB1	1.84	0.60
18:f:578:LEU:HA	18:f:581:LEU:HB2	1.83	0.60
18:f:582:GLY:HA2	18:f:597:TYR:HB3	1.83	0.60
2:B:1022:PHE:HB2	2:B:1033:LEU:HD21	1.83	0.59
2:B:1179:LYS:HA	2:B:1182:PHE:HB3	1.82	0.59
4:J:383:ARG:HH21	4:J:425:SER:HB3	1.66	0.59
4:j:371:LEU:HD11	4:j:397:TYR:HE2	1.67	0.59
6:l:30:LEU:HD21	7:n:136:ILE:HG22	1.84	0.59
7:n:36:ALA:HB1	7:n:40:TYR:CE2	2.37	0.59
15:C:24:LEU:HD22	15:C:278:ALA:HB1	1.84	0.59
18:f:133:VAL:HG13	19:g:592:MET:HE3	1.84	0.59
1:A:865:ALA:HB2	1:A:880:MET:HB2	1.85	0.59
1:A:1047:TRP:HB3	1:A:1052:GLN:HB2	1.84	0.59
2:B:88:TRP:HA	2:B:94:LYS:O	2.01	0.59
7:n:239:ASP:O	7:n:242:GLU:HG2	2.01	0.59
16:D:137:TYR:OH	16:D:151:ARG:NE	2.33	0.59
17:E:241:THR:OG1	17:E:268:ARG:NH2	2.34	0.59
17:E:540:ALA:O	17:E:544:ASN:ND2	2.35	0.59
19:G:176:GLN:OE1	19:G:236:GLU:HB3	2.02	0.59
1:A:862:LYS:HB3	2:B:738:ARG:HH21	1.67	0.59
4:j:655:GLY:H	4:j:673:ILE:HD12	1.67	0.59
12:s:206:ARG:NH2	19:g:80:ASN:O	2.34	0.59
15:C:718:ILE:HG23	15:C:723:TYR:CE1	2.37	0.59
16:D:441:VAL:HG11	16:D:511:ILE:HD13	1.82	0.59
1:A:7:VAL:HB	1:A:356:MET:HB3	1.82	0.59
1:A:1304:TRP:HE1	1:A:1344:VAL:HB	1.67	0.59
3:H:428:SER:H	12:S:254:PRO:HD2	1.65	0.59
4:J:625:LEU:HD11	4:J:657:ASN:HD21	1.67	0.59
11:R:13:VAL:HG23	11:R:29:LEU:HD21	1.85	0.59
13:T:17:GLY:HA2	13:T:20:LEU:HD13	1.84	0.59
4:j:598:LYS:HD2	4:j:601:ARG:HB2	1.84	0.59
7:n:100:LEU:HD12	7:n:103:LEU:HB3	1.82	0.59
19:g:529:LYS:HB3	19:g:613:HIS:CE1	2.37	0.59
1:A:176:THR:HA	1:A:183:THR:HA	1.84	0.59
1:A:856:ASN:HA	1:A:861:PHE:CE2	2.36	0.59
3:H:312:ILE:HA	3:H:315:ALA:HB3	1.83	0.59
8:O:557:ARG:HE	11:R:15:MET:HA	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:R:94:ARG:HB3	11:R:97:ARG:HB2	1.84	0.59
3:h:90:MET:HB2	3:h:222:GLY:HA2	1.84	0.59
3:h:119:VAL:HG23	3:h:199:ALA:HB1	1.85	0.59
14:i:543:VAL:HG23	14:i:552:VAL:HG22	1.85	0.59
7:n:292:LYS:HA	18:f:272:ARG:HG3	1.84	0.59
14:I:860:ILE:HG22	14:I:864:TRP:HE1	1.66	0.59
3:H:20:SER:HB3	20:m:467:GLU:HG3	1.82	0.59
3:h:330:ASN:HA	19:g:548:LYS:HE3	1.84	0.59
14:i:463:TYR:HE1	14:i:465:ILE:HG23	1.66	0.59
14:i:754:THR:O	4:j:601:ARG:NH1	2.36	0.59
15:C:249:THR:HG22	15:C:251:ASP:H	1.67	0.59
19:G:224:GLU:HB3	19:G:268:PRO:HD3	1.85	0.59
19:g:238:ALA:HB1	19:g:241:GLU:HB2	1.85	0.59
1:A:573:VAL:HG22	1:A:585:ILE:HG12	1.84	0.59
1:A:840:LEU:HD11	1:A:880:MET:HE3	1.84	0.59
4:J:435:GLN:HG3	14:i:483:LEU:HD12	1.84	0.59
8:O:408:LEU:HD22	9:P:405:MET:HG2	1.83	0.59
3:h:253:LYS:HD2	3:h:254:ILE:HG12	1.85	0.59
7:n:156:GLN:HB3	20:m:338:LEU:HD23	1.84	0.59
16:D:425:TYR:HB3	16:D:436:ALA:HB3	1.83	0.59
16:D:887:TRP:CH2	16:D:906:LEU:HA	2.38	0.59
17:E:681:ALA:O	17:E:685:ILE:HB	2.02	0.59
18:F:181:LEU:HA	18:F:184:MET:HG3	1.84	0.59
14:I:173:ILE:HD13	14:I:215:ILE:HG12	1.85	0.59
18:f:374:SER:HA	18:f:382:GLY:CA	2.32	0.59
19:g:104:VAL:HG22	19:g:114:VAL:HG13	1.85	0.59
2:B:1246:TYR:HB2	2:B:1289:ARG:HH12	1.67	0.59
3:H:61:LEU:O	3:H:62:GLY:C	2.44	0.59
4:J:320:ASN:HA	4:J:327:ALA:HA	1.84	0.59
7:N:63:VAL:HG23	7:N:87:TYR:CD2	2.38	0.59
13:T:47:GLU:HG3	13:T:58:LYS:HG3	1.83	0.59
3:h:138:ILE:HD11	3:h:143:VAL:HG23	1.85	0.59
15:C:438:ILE:HD11	15:C:472:VAL:HG11	1.85	0.59
15:C:1110:GLN:O	15:C:1113:VAL:HG22	2.03	0.59
16:D:136:VAL:HG11	16:D:161:LEU:HD11	1.85	0.59
16:D:305:VAL:HG12	16:D:307:GLY:H	1.66	0.59
16:D:313:ILE:HA	16:D:323:ALA:O	2.02	0.59
17:E:767:TYR:C	17:E:770:TYR:H	2.10	0.59
19:G:493:ALA:HB1	19:G:540:VAL:HG21	1.84	0.59
14:I:1521:TYR:HB2	14:I:1547:TYR:CE1	2.37	0.59
1:A:314:ASP:HB3	1:A:317:ALA:HB3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:406:ASN:ND2	14:i:522:GLU:OE2	2.36	0.59
12:S:271:VAL:CG2	12:S:337:GLY:HA2	2.33	0.59
14:i:254:ASN:ND2	14:i:300:LYS:O	2.31	0.59
16:D:174:LEU:HA	16:D:186:ASP:HA	1.84	0.59
18:F:541:VAL:HA	18:F:544:ILE:HG22	1.85	0.59
19:G:531:CYS:HB3	19:G:535:CYS:H	1.68	0.59
2:B:126:ARG:HA	2:B:144:TYR:O	2.02	0.59
2:B:561:ASN:HB2	2:B:583:GLY:H	1.67	0.59
10:Q:140:LEU:HB3	10:Q:144:ARG:HD3	1.85	0.59
3:h:281:LYS:HG2	18:f:515:LEU:HD13	1.85	0.59
3:h:319:TYR:HB3	3:h:326:LYS:O	2.03	0.59
14:i:1132:PHE:HA	14:i:1135:ALA:HB3	1.84	0.59
12:s:243:MET:HE1	12:s:288:ILE:HG12	1.85	0.59
15:C:575:TYR:HE1	15:C:605:LYS:H	1.51	0.59
17:E:151:ILE:O	17:E:155:GLN:HB2	2.02	0.59
17:E:953:ALA:O	17:E:957:TYR:HB2	2.03	0.59
17:E:1144:ALA:HB1	17:E:1170:MET:HE1	1.84	0.59
17:E:1150:GLN:HB2	17:E:1152:ARG:HE	1.68	0.59
19:G:596:LYS:O	19:G:600:PHE:N	2.36	0.59
14:I:422:ILE:O	14:I:431:LEU:N	2.35	0.59
14:I:1104:LEU:HD12	14:I:1112:LEU:HD11	1.83	0.59
1:A:1040:TYR:HB3	1:A:1059:LEU:HB3	1.85	0.58
2:B:36:ASN:HA	2:B:63:GLU:HA	1.84	0.58
3:H:120:ARG:HB2	3:H:132:VAL:HB	1.85	0.58
3:H:310:GLY:HA2	19:G:590:LYS:CG	2.32	0.58
11:R:71:ALA:HB2	11:R:117:LEU:HD11	1.84	0.58
4:j:597:ASP:HB3	5:k:504:ALA:HA	1.85	0.58
17:E:1033:PRO:HB3	17:E:1066:SER:H	1.67	0.58
17:E:1328:CYS:HA	17:E:1344:GLU:HG3	1.83	0.58
19:g:449:GLU:HA	19:g:452:LYS:HB3	1.85	0.58
1:A:1282:CYS:SG	1:A:1298:ARG:NH2	2.76	0.58
3:H:95:GLU:HB3	3:H:102:ILE:H	1.68	0.58
4:J:506:SER:OG	4:J:558:ILE:N	2.36	0.58
6:L:67:LEU:CD2	7:N:15:ALA:HB2	2.33	0.58
3:h:140:ASN:HD21	3:h:254:ILE:HG21	1.67	0.58
15:C:312:ASP:HA	15:C:328:CYS:HB2	1.86	0.58
15:C:444:ASP:HB2	16:D:883:LEU:HD12	1.85	0.58
16:D:764:MET:O	16:D:768:LEU:HB2	2.04	0.58
17:E:1308:GLY:HA3	17:E:1331:VAL:HG22	1.84	0.58
18:F:518:GLN:OE1	18:F:546:GLN:NE2	2.36	0.58
14:I:837:ARG:HH21	14:I:860:ILE:HG12	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:1194:MET:HE2	14:I:1228:LEU:HD23	1.84	0.58
1:A:124:GLY:HA2	1:A:133:MET:O	2.02	0.58
2:B:1328:ALA:HA	2:B:1361:LEU:HD21	1.86	0.58
3:H:20:SER:H	3:H:65:LYS:HD2	1.68	0.58
3:H:122:THR:HG23	7:N:257:ASP:HB2	1.85	0.58
3:H:221:LEU:HD13	3:H:226:MET:HE2	1.85	0.58
3:H:338:THR:HG23	19:G:419:MET:HB3	1.84	0.58
6:L:41:ILE:HA	6:L:44:MET:HG3	1.86	0.58
7:N:234:ARG:NH2	7:N:240:GLU:OE2	2.36	0.58
11:R:61:THR:HB	11:R:130:SER:HB2	1.85	0.58
14:i:181:ILE:HG21	14:i:231:GLY:HA3	1.85	0.58
14:i:968:TYR:HB2	14:I:990:LYS:HA	1.86	0.58
14:i:1251:ALA:HB1	14:i:1266:VAL:HG11	1.86	0.58
15:C:659:VAL:HG22	15:C:690:GLN:HG3	1.86	0.58
16:D:36:GLY:H	16:D:76:ALA:HA	1.68	0.58
20:M:44:LYS:O	20:M:46:TYR:CE2	2.56	0.58
18:f:530:PHE:HA	18:f:533:LEU:HB2	1.86	0.58
18:f:557:PHE:HB2	18:f:561:VAL:HG23	1.85	0.58
19:g:552:GLU:OE2	19:g:587:ASN:ND2	2.36	0.58
2:B:228:THR:HG23	2:B:239:ALA:HB2	1.84	0.58
4:j:379:LEU:HD23	4:j:424:LEU:HD23	1.84	0.58
15:C:857:TYR:HB2	15:C:907:GLU:HB2	1.84	0.58
16:D:1050:ARG:NH1	16:D:1083:GLN:OE1	2.37	0.58
17:E:547:LEU:HD22	17:E:577:ALA:HA	1.86	0.58
19:G:379:GLU:HA	19:G:382:ARG:HD2	1.85	0.58
14:I:991:LEU:HD22	14:I:1013:TYR:HE1	1.68	0.58
14:I:1172:ILE:HD11	14:I:1196:ILE:HG23	1.84	0.58
19:g:370:PHE:HA	19:g:373:LEU:HB2	1.83	0.58
1:A:9:PRO:HB3	1:A:354:GLY:HA3	1.85	0.58
1:A:612:GLN:NE2	1:A:641:THR:O	2.35	0.58
4:J:597:ASP:OD1	4:J:601:ARG:NH1	2.36	0.58
9:P:630:MET:O	9:P:634:LEU:HB2	2.03	0.58
19:G:179:LEU:HD13	19:G:182:ASN:HD22	1.68	0.58
19:g:196:ALA:HB1	19:g:245:LEU:HD21	1.85	0.58
4:J:192:VAL:HG23	4:J:203:THR:HG22	1.84	0.58
4:J:528:TYR:HB2	4:J:543:THR:OG1	2.04	0.58
3:h:120:ARG:O	7:n:261:ASN:ND2	2.36	0.58
3:h:137:GLY:O	3:h:203:ASN:ND2	2.36	0.58
3:h:244:PHE:HB3	3:h:248:LEU:HD12	1.84	0.58
14:i:440:ASN:HB2	14:i:443:LEU:HB2	1.85	0.58
15:C:6:ALA:HA	15:C:290:GLN:HE21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:17:ALA:HA	2:B:30:ALA:O	2.03	0.58
2:B:782:ARG:HH11	2:B:783:GLU:HG2	1.69	0.58
4:J:604:ARG:NH1	4:J:634:ALA:O	2.36	0.58
10:Q:32:LEU:HD21	10:Q:134:VAL:HG11	1.85	0.58
14:i:67:ILE:HG23	20:m:21:VAL:HG22	1.85	0.58
4:j:471:GLY:O	4:j:476:ARG:NH2	2.37	0.58
16:D:7:LYS:HB3	16:D:332:PHE:HB3	1.86	0.58
17:E:915:LEU:HD21	17:E:932:ARG:HB3	1.85	0.58
14:I:1383:LEU:HD22	14:I:1386:LYS:HD3	1.85	0.58
18:f:606:PRO:O	18:f:639:GLN:NE2	2.37	0.58
19:g:318:LEU:HD12	19:g:321:LYS:HB3	1.85	0.58
1:A:287:LEU:HD21	1:A:311:ARG:HH21	1.69	0.58
2:B:413:PRO:O	2:B:451:ASN:ND2	2.37	0.58
3:H:89:LEU:HD13	3:H:221:LEU:HB2	1.85	0.58
4:J:525:CYS:HA	4:J:546:THR:HA	1.84	0.58
8:O:560:LEU:HB3	11:R:15:MET:HG2	1.85	0.58
14:i:222:ASN:ND2	14:i:239:TYR:HB2	2.19	0.58
15:C:1159:CYS:H	15:C:1193:LEU:HD23	1.69	0.58
19:G:149:THR:HG22	19:G:153:MET:HE1	1.86	0.58
19:G:460:PHE:CE2	19:G:494:ASN:HB3	2.38	0.58
14:I:849:ALA:O	14:I:853:PHE:N	2.36	0.58
18:f:559:ASN:O	18:f:563:TRP:N	2.34	0.58
19:g:530:PRO:HB2	19:g:563:GLU:HB2	1.86	0.58
4:J:342:LEU:HD22	4:J:347:LEU:HD13	1.85	0.58
5:K:413:GLN:HE22	7:N:137:LYS:HE3	1.69	0.58
4:j:652:THR:OG1	4:j:682:ARG:NH1	2.37	0.58
7:n:156:GLN:HG3	20:m:334:LEU:HB3	1.86	0.58
16:D:611:PHE:HA	16:D:615:ASP:O	2.04	0.58
18:F:466:LEU:HB3	18:F:470:ARG:HH21	1.69	0.58
19:G:116:THR:OG1	19:G:148:ASN:ND2	2.36	0.58
18:f:601:SER:OG	18:f:608:ASN:ND2	2.36	0.58
1:A:532:ARG:HB2	1:A:545:GLU:HB3	1.86	0.58
4:J:173:LEU:HD22	14:i:435:ARG:HH22	1.69	0.58
4:J:508:ARG:HG2	4:J:560:LEU:HA	1.86	0.58
4:J:587:LEU:HB3	4:J:618:MET:HE1	1.86	0.58
7:N:66:LEU:HD11	7:N:81:LEU:HD23	1.85	0.58
7:N:137:LYS:HB3	20:M:319:VAL:HG21	1.84	0.58
9:P:382:LEU:HA	9:P:385:GLU:HG2	1.86	0.58
11:R:46:GLU:HB3	11:R:115:ILE:HG23	1.86	0.58
3:h:159:PHE:O	3:h:163:ARG:NH1	2.36	0.58
4:j:655:GLY:HA2	4:j:658:ALA:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:n:43:VAL:HA	7:n:100:LEU:HD21	1.86	0.58
15:C:572:GLU:HG3	15:C:601:GLU:HG3	1.85	0.58
17:E:702:THR:OG1	17:E:722:LEU:O	2.22	0.58
14:I:119:LEU:HD12	14:I:131:PHE:HB3	1.86	0.58
18:f:293:HIS:O	18:f:297:TYR:N	2.36	0.58
18:f:544:ILE:HA	18:f:547:ILE:HG22	1.85	0.58
19:g:132:ARG:HA	19:g:135:LEU:HB2	1.84	0.58
1:A:709:ARG:HE	1:A:717:VAL:HG11	1.68	0.57
9:P:480:LYS:HB3	15:C:1095:LEU:HD13	1.86	0.57
3:h:91:SER:HB2	3:h:98:ALA:HB1	1.86	0.57
4:j:439:THR:HB	4:j:461:GLU:HA	1.84	0.57
15:C:1036:ARG:NH1	15:C:1041:PHE:O	2.36	0.57
18:F:170:ARG:HG3	18:F:175:MET:HE1	1.86	0.57
14:I:145:ASN:ND2	14:I:190:GLU:OE2	2.37	0.57
14:I:781:GLY:O	14:I:782:LEU:C	2.45	0.57
14:I:1348:VAL:HA	14:I:1351:ARG:HD2	1.84	0.57
1:A:89:VAL:HB	1:A:102:ILE:HB	1.85	0.57
1:A:365:MET:HE1	1:A:376:TYR:HB2	1.86	0.57
2:B:711:GLN:HA	2:B:718:ARG:HG2	1.86	0.57
2:B:791:ASP:HB2	2:B:814:CYS:HB3	1.85	0.57
4:J:160:LEU:O	4:J:170:ILE:HA	2.04	0.57
7:N:202:LEU:HD22	20:M:380:LYS:HG3	1.85	0.57
3:h:338:THR:O	3:h:339:PRO:C	2.47	0.57
14:i:334:THR:HB	14:i:342:ILE:HB	1.85	0.57
14:i:578:ASN:ND2	14:i:582:GLU:OE2	2.37	0.57
4:j:565:ARG:HH12	5:k:479:LYS:HE3	1.68	0.57
4:j:756:SER:O	4:j:763:ARG:NH1	2.37	0.57
15:C:27:LYS:HB3	15:C:30:GLY:H	1.69	0.57
15:C:662:ALA:HB1	15:C:678:TRP:HB3	1.86	0.57
15:C:1140:ASN:HB3	15:C:1142:VAL:HG22	1.84	0.57
17:E:1058:TYR:HD1	17:E:1061:LEU:HB3	1.68	0.57
14:I:1038:HIS:HA	14:I:1041:ILE:HD12	1.85	0.57
1:A:740:LEU:HD13	1:A:742:LYS:HD2	1.85	0.57
2:B:1281:VAL:HG11	2:B:1321:ILE:HG12	1.86	0.57
3:H:64:PRO:HD2	3:H:102:ILE:HD12	1.86	0.57
5:K:457:GLU:O	5:K:461:GLN:NE2	2.36	0.57
5:k:461:GLN:HA	6:l:83:ARG:HD2	1.86	0.57
17:E:224:LEU:HD23	17:E:250:ALA:HB2	1.87	0.57
14:I:1747:THR:OG1	14:I:1749:MET:O	2.22	0.57
4:J:194:TRP:HE1	4:J:199:HIS:HA	1.68	0.57
11:R:66:ASN:HB3	11:R:121:GLY:H	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1720:PHE:HB3	14:i:1727:LEU:HB2	1.87	0.57
15:C:352:ILE:HD11	15:C:371:ILE:HG13	1.86	0.57
16:D:178:PRO:O	16:D:208:LYS:N	2.37	0.57
18:F:251:ILE:HG12	18:F:255:ALA:HB3	1.84	0.57
19:G:36:LEU:HD13	19:G:49:ALA:HA	1.86	0.57
14:I:214:CYS:SG	14:I:215:ILE:N	2.75	0.57
18:f:541:VAL:HG12	18:f:544:ILE:HD12	1.85	0.57
1:A:385:LEU:HB3	1:A:395:ALA:HB3	1.85	0.57
2:B:644:PHE:HB2	2:B:755:MET:HE3	1.87	0.57
14:i:366:ASN:HB3	14:i:374:ILE:HB	1.86	0.57
17:E:1161:TYR:HA	17:E:1164:LEU:HB2	1.87	0.57
18:F:318:LYS:HG3	18:F:319:LEU:HD22	1.87	0.57
14:I:1249:ASN:ND2	14:I:1316:THR:OG1	2.38	0.57
20:M:62:SER:O	20:M:66:PHE:HB2	2.04	0.57
18:f:606:PRO:HG2	18:f:638:ILE:HG21	1.86	0.57
1:A:215:SER:HA	1:A:224:TYR:O	2.04	0.57
3:h:33:ARG:NH1	3:h:238:SER:OG	2.38	0.57
3:h:186:GLN:O	3:h:187:LYS:HB2	2.03	0.57
14:i:629:GLU:HG2	4:j:665:ARG:HB3	1.85	0.57
4:j:707:GLN:HA	4:j:733:MET:HE3	1.85	0.57
16:D:533:VAL:H	16:D:576:MET:H	1.52	0.57
14:I:1253:ARG:O	14:I:1257:GLN:HB2	2.05	0.57
18:f:564:PHE:CD1	18:f:577:VAL:HG13	2.39	0.57
19:g:532:PHE:C	19:g:534:LEU:H	2.12	0.57
1:A:260:LEU:O	1:A:268:ALA:HB3	2.04	0.57
1:A:311:ARG:NH1	1:A:328:ASP:OD1	2.36	0.57
1:A:763:MET:O	1:A:767:LEU:HG	2.04	0.57
2:B:671:CYS:O	2:B:672:ALA:C	2.46	0.57
4:J:658:ALA:HB1	4:J:674:LEU:HD13	1.85	0.57
10:Q:27:VAL:O	10:Q:136:ASN:ND2	2.38	0.57
3:h:154:ASN:ND2	3:h:169:ASP:OD1	2.38	0.57
16:D:678:TYR:OH	16:D:707:ASP:O	2.22	0.57
17:E:106:SER:O	17:E:109:PRO:HD2	2.05	0.57
17:E:1259:CYS:HB3	17:E:1272:ALA:HA	1.85	0.57
18:F:301:MET:O	18:F:302:CYS:C	2.45	0.57
18:F:310:GLU:O	18:F:314:ASN:ND2	2.38	0.57
14:I:57:ALA:HB3	14:I:60:ALA:HB2	1.87	0.57
14:I:1614:ASP:OD2	14:I:1631:ASN:ND2	2.38	0.57
18:f:499:ALA:HA	18:f:502:ILE:HG22	1.86	0.57
2:B:6:THR:O	2:B:423:GLN:NE2	2.38	0.57
4:J:107:CYS:HA	4:J:123:GLY:HA2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:310:THR:HB	4:J:318:VAL:HB	1.86	0.57
8:O:418:PHE:HE2	9:P:415:MET:HG3	1.69	0.57
8:O:613:GLU:O	8:O:617:ASN:N	2.38	0.57
4:j:184:ALA:HB3	4:j:189:VAL:HG21	1.87	0.57
16:D:749:GLU:HG2	16:D:753:MET:HE2	1.87	0.57
18:F:577:VAL:HA	18:F:580:ARG:HB2	1.86	0.57
14:I:321:CYS:SG	14:I:324:ARG:NH2	2.77	0.57
14:I:692:MET:HE2	14:I:696:ASN:HB3	1.85	0.57
2:B:5:TYR:O	2:B:378:CYS:HA	2.04	0.57
8:O:522:ALA:HA	8:O:525:LYS:HB3	1.87	0.57
13:T:99:LEU:O	13:T:102:PHE:HB2	2.04	0.57
3:h:295:ASP:HB2	18:f:301:MET:HE1	1.87	0.57
14:i:543:VAL:HG21	14:i:574:ILE:HG12	1.86	0.57
14:i:633:MET:HG2	4:j:665:ARG:HD2	1.86	0.57
14:i:781:GLY:HA2	6:l:120:LEU:HB3	1.87	0.57
16:D:182:CYS:SG	16:D:237:ARG:NH1	2.78	0.57
16:D:271:ALA:HB3	16:D:315:TRP:HE1	1.70	0.57
16:D:1045:VAL:HG21	17:E:1101:LYS:HB3	1.87	0.57
16:D:1094:MET:SD	17:E:815:HIS:HA	2.45	0.57
18:F:438:LYS:O	18:F:442:ALA:HB2	2.05	0.57
1:A:735:HIS:HA	1:A:738:VAL:HG22	1.87	0.57
2:B:500:HIS:CE1	2:B:523:ARG:HB2	2.39	0.57
4:J:519:MET:HE1	4:J:558:ILE:HB	1.87	0.57
4:j:636:ASP:HA	4:j:640:LYS:HE3	1.87	0.57
16:D:1052:ALA:HB1	16:D:1067:ILE:HG23	1.86	0.57
17:E:554:ALA:O	17:E:558:LEU:N	2.38	0.57
17:E:1351:MET:N	17:E:1351:MET:SD	2.74	0.57
19:G:47:ARG:NH1	19:G:51:SER:OG	2.37	0.57
14:I:448:VAL:HA	14:I:459:LYS:HA	1.87	0.57
18:f:194:MET:O	18:f:198:ASN:ND2	2.37	0.57
2:B:593:PHE:HB3	2:B:598:ARG:HB2	1.87	0.56
2:B:609:GLU:HG3	2:B:611:LYS:H	1.70	0.56
4:J:77:VAL:HG13	4:J:89:ILE:HG23	1.87	0.56
14:i:1085:LYS:HD3	14:i:1093:SER:HB2	1.86	0.56
7:n:42:LEU:HD12	7:n:100:LEU:HB3	1.86	0.56
16:D:525:HIS:O	16:D:526:LEU:HB2	2.05	0.56
16:D:736:ALA:HB2	16:D:754:ARG:HH21	1.70	0.56
17:E:17:TYR:HA	17:E:290:GLU:HG3	1.86	0.56
14:I:662:ARG:HB3	14:I:665:HIS:HB2	1.86	0.56
14:I:1158:LEU:HD22	14:I:1163:ARG:HD2	1.87	0.56
19:g:197:LEU:HD21	19:g:249:ILE:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:HIS:HA	1:A:258:ILE:HG23	1.87	0.56
3:H:215:TYR:O	3:H:217:ARG:NH1	2.38	0.56
8:O:495:ARG:HH11	15:C:1106:ALA:HB1	1.70	0.56
13:T:44:ARG:NH1	13:T:46:GLN:OE1	2.38	0.56
4:j:743:ALA:HA	4:j:746:LYS:HB2	1.87	0.56
6:l:41:ILE:HG23	6:l:44:MET:HE2	1.87	0.56
7:n:159:GLU:HG3	20:m:339:ASN:HA	1.87	0.56
7:n:266:GLU:HA	7:n:269:LEU:HD12	1.85	0.56
15:C:37:ILE:HB	15:C:42:LEU:HD12	1.87	0.56
16:D:1029:ALA:HA	16:D:1058:TYR:HB3	1.87	0.56
17:E:1350:ARG:HH12	17:E:1353:LEU:HA	1.70	0.56
14:I:247:GLU:HB3	20:M:31:LYS:HD3	1.87	0.56
20:m:76:LEU:HB3	20:m:134:LEU:HB3	1.86	0.56
1:A:38:ASN:HD22	1:A:49:GLU:HG2	1.70	0.56
1:A:93:LEU:O	1:A:97:LYS:HA	2.05	0.56
1:A:599:VAL:HG22	1:A:729:ARG:HD3	1.86	0.56
2:B:642:ILE:HD13	2:B:704:MET:HE3	1.87	0.56
3:H:189:ALA:HB2	3:H:210:TRP:HD1	1.71	0.56
3:H:412:HIS:O	3:H:416:GLU:N	2.38	0.56
4:J:7:GLN:HA	4:J:293:VAL:HA	1.88	0.56
7:N:84:LYS:HG3	17:E:211:THR:HB	1.87	0.56
8:O:477:GLN:HG3	8:O:481:THR:HG23	1.88	0.56
8:O:546:ARG:HH12	11:R:26:GLU:HG2	1.71	0.56
10:Q:138:THR:HG21	10:Q:165:ASP:HB2	1.88	0.56
11:R:74:LYS:O	11:R:83:PHE:HA	2.05	0.56
13:T:123:GLN:HG3	13:T:125:GLN:HG2	1.87	0.56
14:i:328:LYS:NZ	14:i:367:ILE:O	2.38	0.56
14:i:650:ARG:HG3	4:j:722:LYS:HB2	1.86	0.56
14:i:932:LEU:HD11	14:i:951:MET:HE2	1.87	0.56
4:j:201:ILE:HG23	4:j:213:TRP:HB2	1.86	0.56
4:j:528:TYR:CD1	4:j:584:PRO:HG2	2.40	0.56
6:l:82:GLU:OE2	6:l:83:ARG:NH2	2.38	0.56
7:n:56:ILE:HG21	7:n:62:ARG:HD2	1.87	0.56
16:D:974:THR:O	17:E:720:LYS:NZ	2.38	0.56
17:E:778:MET:HE3	17:E:790:PHE:HE2	1.70	0.56
17:E:1034:ASN:ND2	17:E:1061:LEU:O	2.36	0.56
17:E:1104:ARG:O	17:E:1108:GLN:NE2	2.38	0.56
18:F:280:LEU:HD23	18:F:299:LEU:HD22	1.87	0.56
14:I:112:GLN:OE1	14:I:139:ARG:NH1	2.38	0.56
14:I:513:LEU:HD13	14:I:533:VAL:HG21	1.86	0.56
18:f:234:GLN:OE1	18:f:236:LYS:NZ	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:f:294:GLN:O	18:f:298:ASN:N	2.34	0.56
19:g:181:TYR:O	19:g:185:LEU:N	2.38	0.56
20:m:23:MET:HE3	20:m:27:ALA:HB2	1.87	0.56
1:A:762:GLU:HA	1:A:765:MET:HE2	1.88	0.56
4:J:418:ASN:H	4:J:421:MET:HB2	1.70	0.56
4:J:489:LEU:HB2	4:J:498:ALA:HB3	1.86	0.56
14:i:45:GLU:HB2	14:i:305:LYS:HD2	1.87	0.56
14:i:204:CYS:SG	14:i:205:VAL:N	2.77	0.56
14:i:664:LEU:H	4:j:690:LEU:HD21	1.71	0.56
14:i:1091:ASN:H	14:I:1144:LYS:HD2	1.71	0.56
4:j:583:TYR:O	4:j:587:LEU:N	2.33	0.56
7:n:235:PRO:HA	20:m:412:ILE:HG12	1.86	0.56
18:F:256:LYS:HB3	18:F:260:PHE:CE1	2.40	0.56
14:I:328:LYS:NZ	14:I:367:ILE:O	2.35	0.56
1:A:1206:ILE:O	1:A:1210:THR:OG1	2.22	0.56
4:J:513:THR:HB	4:J:588:TYR:HB3	1.87	0.56
8:O:418:PHE:HE1	9:P:419:LEU:HD22	1.68	0.56
16:D:9:ILE:HB	16:D:330:VAL:HB	1.87	0.56
17:E:551:LEU:HD22	17:E:918:LEU:HG	1.87	0.56
17:E:771:CYS:SG	17:E:806:ARG:NH1	2.79	0.56
19:G:610:ALA:HA	19:G:613:HIS:HB3	1.87	0.56
14:I:699:TRP:NE1	14:I:731:VAL:HG11	2.20	0.56
18:f:132:THR:HB	18:f:162:ASN:HD21	1.70	0.56
18:f:224:ARG:NH1	18:f:243:MET:O	2.38	0.56
18:f:241:ILE:HB	18:f:245:ARG:HH12	1.71	0.56
18:f:515:LEU:HA	18:f:518:GLN:HB2	1.87	0.56
2:B:435:LEU:HD11	2:B:442:ALA:HB1	1.88	0.56
2:B:925:TYR:HB2	2:B:934:MET:SD	2.45	0.56
4:J:506:SER:HG	4:J:558:ILE:N	2.04	0.56
8:O:472:GLU:OE1	15:C:1077:ARG:NH1	2.38	0.56
3:h:328:GLN:HB3	18:f:127:ARG:HE	1.70	0.56
7:n:234:ARG:HD2	18:f:667:LYS:HB3	1.87	0.56
18:F:518:GLN:NE2	18:F:550:THR:OG1	2.34	0.56
19:G:460:PHE:CZ	19:G:494:ASN:HB3	2.41	0.56
14:I:246:ARG:HB2	14:I:265:TYR:HB2	1.86	0.56
18:f:522:GLU:O	18:f:526:ALA:N	2.35	0.56
1:A:524:ARG:HE	9:P:536:VAL:HG22	1.70	0.56
1:A:720:LEU:HA	1:A:723:VAL:HG22	1.88	0.56
1:A:1098:GLY:H	1:A:1101:ARG:HE	1.54	0.56
2:B:570:PRO:O	2:B:571:GLU:C	2.48	0.56
4:J:647:VAL:HG11	4:J:656:ARG:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:41:ILE:HD13	7:N:137:LYS:HE2	1.87	0.56
9:P:566:HIS:CD2	10:Q:16:ARG:HD3	2.40	0.56
14:i:726:GLU:HB2	14:i:730:ARG:HE	1.70	0.56
15:C:406:ARG:HG2	15:C:444:ASP:HA	1.86	0.56
15:C:1017:ASN:HB3	15:C:1028:ILE:N	2.18	0.56
16:D:964:ALA:O	16:D:968:GLU:HB2	2.06	0.56
17:E:612:LEU:HD12	17:E:617:LYS:HG3	1.88	0.56
1:A:346:VAL:HA	1:A:359:PHE:O	2.05	0.56
1:A:407:GLY:HA3	1:A:446:ILE:HG12	1.87	0.56
3:H:9:VAL:HG13	3:H:57:HIS:HB2	1.88	0.56
4:J:409:PHE:HB3	4:J:444:PHE:CE1	2.41	0.56
9:P:432:THR:OG1	13:T:45:ILE:O	2.20	0.56
11:R:21:GLU:HA	11:R:24:PRO:HB3	1.87	0.56
14:i:224:VAL:HG23	14:i:237:PHE:HB2	1.87	0.56
12:s:283:CYS:HB3	12:s:288:ILE:HB	1.86	0.56
17:E:850:LEU:O	17:E:852:GLN:HG3	2.05	0.56
17:E:1320:ARG:HG2	17:E:1348:LYS:HE2	1.86	0.56
14:I:573:ASP:HB3	14:I:584:ILE:HB	1.87	0.56
1:A:872:GLN:HB3	9:P:627:ILE:HG21	1.87	0.56
2:B:932:LEU:HA	2:B:959:ALA:HB2	1.88	0.56
2:B:1160:GLN:HA	14:i:1664:LEU:HD22	1.87	0.56
3:H:304:LEU:HD23	18:F:264:ARG:NH1	2.21	0.56
4:J:424:LEU:HB3	4:J:429:ILE:HG22	1.88	0.56
10:Q:197:PHE:HE1	11:R:66:ASN:HD22	1.54	0.56
11:R:30:ASP:OD2	11:R:32:LYS:NZ	2.38	0.56
13:T:78:ALA:O	13:T:110:ASN:ND2	2.38	0.56
3:h:120:ARG:HH12	3:h:127:LEU:HD13	1.70	0.56
14:i:674:ALA:O	14:i:709:GLN:NE2	2.32	0.56
16:D:435:ALA:HB3	16:D:442:TYR:HB3	1.86	0.56
16:D:825:PHE:HB3	16:D:834:LEU:HA	1.88	0.56
14:I:957:LYS:HB3	14:I:960:ALA:HB3	1.86	0.56
3:H:178:PRO:O	3:H:223:SER:HB2	2.06	0.56
4:J:547:LYS:HD2	6:L:103:ARG:HH21	1.71	0.56
7:N:184:ALA:O	7:N:187:GLN:HG3	2.05	0.56
14:i:198:GLN:NE2	14:i:200:VAL:O	2.38	0.56
4:j:432:LEU:HA	4:j:441:VAL:HA	1.88	0.56
4:j:515:MET:HE1	4:j:582:PRO:HA	1.88	0.56
17:E:503:ARG:HD3	17:E:508:ALA:HB3	1.87	0.56
14:I:42:LEU:HD11	14:I:94:LEU:HD22	1.87	0.56
14:I:83:ALA:HA	14:I:89:VAL:HG22	1.88	0.56
1:A:675:ALA:HB3	1:A:691:LEU:HD13	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:260:ALA:HB2	2:B:266:ALA:HB2	1.89	0.55
2:B:728:LEU:HD13	2:B:761:ARG:HH21	1.71	0.55
2:B:902:ARG:NH1	2:B:928:ALA:O	2.39	0.55
3:H:114:ASN:H	3:H:183:LEU:HA	1.71	0.55
3:H:341:PRO:HB3	19:G:412:GLU:HG3	1.87	0.55
4:J:587:LEU:HA	4:J:590:MET:HG2	1.88	0.55
13:T:58:LYS:HE2	13:T:60:GLN:HE21	1.70	0.55
3:h:186:GLN:C	3:h:188:PRO:HD2	2.31	0.55
3:h:419:ARG:HD3	12:s:268:SER:HA	1.88	0.55
14:i:869:VAL:HA	14:i:874:MET:HE1	1.88	0.55
14:i:1452:GLU:OE1	14:i:1486:GLN:NE2	2.39	0.55
14:i:1500:VAL:HB	14:i:1516:LEU:HD12	1.87	0.55
5:k:443:TRP:HA	5:k:446:GLU:HB2	1.88	0.55
7:n:112:GLY:H	7:n:116:ASP:HB2	1.71	0.55
16:D:212:VAL:HG23	16:D:231:ILE:HG12	1.87	0.55
17:E:884:TRP:HB3	17:E:906:ARG:HH21	1.71	0.55
18:F:642:GLU:HB3	18:F:645:TRP:HB3	1.87	0.55
19:G:73:LEU:HD23	19:G:76:LEU:HD21	1.87	0.55
19:G:208:VAL:HB	19:G:218:SER:HB2	1.88	0.55
14:I:424:GLU:HB2	14:I:431:LEU:HD22	1.87	0.55
14:I:666:LYS:HG3	14:I:667:VAL:HG13	1.87	0.55
14:I:1590:TYR:CE2	14:I:1659:VAL:HG11	2.41	0.55
2:B:1090:VAL:HG21	2:B:1111:VAL:HG21	1.88	0.55
2:B:1197:ALA:HB3	2:B:1219:TYR:CE1	2.41	0.55
3:H:360:LEU:HD22	19:G:52:LEU:HD22	1.87	0.55
7:N:71:GLN:HE22	7:N:80:LYS:HE3	1.71	0.55
7:N:245:GLN:HB2	20:M:423:THR:HG21	1.88	0.55
14:i:1034:VAL:O	14:i:1038:HIS:ND1	2.39	0.55
14:i:1483:ILE:HG22	14:i:1522:ARG:HH11	1.72	0.55
7:n:156:GLN:O	7:n:160:LEU:N	2.38	0.55
16:D:346:ASN:HB3	16:D:367:THR:HG23	1.88	0.55
19:G:466:TYR:HB3	19:G:498:SER:HB2	1.88	0.55
14:I:254:ASN:ND2	14:I:258:ASP:OD1	2.37	0.55
14:I:733:ASP:OD2	14:I:759:GLN:NE2	2.38	0.55
1:A:1338:LEU:H	1:A:1338:LEU:HD12	1.69	0.55
2:B:642:ILE:HB	2:B:655:GLU:HG2	1.87	0.55
4:J:117:THR:O	4:J:133:ARG:NH2	2.39	0.55
4:J:259:ALA:O	6:L:88:LYS:NZ	2.39	0.55
9:P:614:ARG:HA	9:P:617:LYS:HB2	1.89	0.55
11:R:77:GLN:HE22	11:R:82:GLN:H	1.54	0.55
14:i:873:GLN:HB3	14:i:876:ALA:HB3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1164:PHE:HA	14:i:1183:MET:HE1	1.88	0.55
15:C:419:VAL:HG22	15:C:429:LEU:HG	1.87	0.55
17:E:1263:LEU:HB2	17:E:1272:ALA:HB2	1.88	0.55
18:F:257:GLU:HG3	18:F:258:VAL:N	2.22	0.55
14:I:642:THR:HG23	14:I:648:ALA:HB2	1.89	0.55
18:f:518:GLN:HE22	18:f:526:ALA:HB1	1.71	0.55
19:g:376:ARG:HA	19:g:379:GLU:HB2	1.88	0.55
1:A:128:VAL:HA	1:A:152:LYS:HG3	1.88	0.55
1:A:986:GLY:HA2	1:A:1013:THR:HG21	1.88	0.55
2:B:357:ALA:HB3	2:B:370:ALA:HB3	1.89	0.55
3:H:24:LYS:HB2	7:n:277:GLN:HE22	1.72	0.55
3:H:313:PRO:HB3	18:F:137:LEU:HD22	1.89	0.55
7:N:141:ALA:HA	7:N:144:ILE:HD12	1.88	0.55
8:O:521:GLU:O	8:O:525:LYS:N	2.29	0.55
3:h:154:ASN:OD1	3:h:160:ARG:NH2	2.39	0.55
3:h:286:LEU:HD22	20:m:450:SER:HB3	1.87	0.55
14:i:149:TYR:OH	14:I:511:ARG:NH2	2.39	0.55
4:j:268:THR:O	4:j:288:GLY:N	2.40	0.55
4:j:418:ASN:HB2	4:j:421:MET:HG2	1.87	0.55
4:j:706:HIS:H	4:j:747:LYS:HD3	1.71	0.55
15:C:1078:LYS:HZ2	15:C:1096:ASP:H	1.55	0.55
17:E:706:CYS:HB2	17:E:722:LEU:HD13	1.88	0.55
18:F:218:PRO:HB2	19:G:592:MET:O	2.07	0.55
14:I:1083:VAL:O	14:I:1087:TYR:HB2	2.06	0.55
19:g:473:TYR:CE2	19:g:492:LEU:HD23	2.42	0.55
3:H:76:LEU:HD11	3:H:86:ILE:HD11	1.88	0.55
3:H:331:LEU:HD23	18:F:176:ALA:HB3	1.88	0.55
4:J:595:GLN:HG2	5:K:504:ALA:HB2	1.88	0.55
7:N:249:ASN:HB3	20:M:427:GLN:HE21	1.71	0.55
14:i:207:TYR:H	14:i:219:GLY:HA2	1.71	0.55
4:j:142:ALA:HB2	4:j:171:LYS:HG2	1.87	0.55
17:E:1160:ARG:O	17:E:1164:LEU:N	2.34	0.55
18:F:212:VAL:HG12	18:F:213:ARG:HD3	1.87	0.55
14:I:460:LYS:HA	14:I:473:GLN:O	2.06	0.55
14:I:1611:ARG:HD2	14:I:1614:ASP:HB2	1.89	0.55
18:f:155:ASN:HB2	18:f:194:MET:HE1	1.87	0.55
20:m:449:LEU:O	20:m:453:ASN:ND2	2.40	0.55
2:B:484:VAL:HG12	2:B:490:VAL:HA	1.87	0.55
3:H:353:ARG:O	19:G:144:ASP:HB2	2.07	0.55
9:P:498:ILE:HG12	15:C:1109:ALA:HA	1.88	0.55
3:h:331:LEU:HB2	19:g:544:LEU:HD13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:837:ARG:HA	14:i:842:TYR:HB3	1.89	0.55
4:j:120:ALA:H	4:j:153:TRP:HE1	1.53	0.55
4:j:598:LYS:HB2	5:k:503:LEU:HB3	1.88	0.55
4:j:604:ARG:HA	4:j:612:TRP:HE1	1.70	0.55
4:j:668:GLU:HA	4:j:671:GLU:HB3	1.89	0.55
15:C:465:ALA:O	15:C:467:ARG:NH1	2.39	0.55
15:C:874:SER:O	15:C:876:LYS:NZ	2.39	0.55
16:D:929:ALA:HA	16:D:935:ALA:HB2	1.87	0.55
17:E:890:VAL:HG23	17:E:892:LYS:HG2	1.88	0.55
17:E:1094:LYS:O	17:E:1098:LEU:N	2.40	0.55
17:E:1164:LEU:HD23	17:E:1167:TYR:HD2	1.72	0.55
14:I:714:ASP:O	14:I:718:LEU:HB2	2.06	0.55
14:I:1365:HIS:HD2	14:I:1371:ALA:HA	1.71	0.55
1:A:226:MET:HB3	1:A:235:PRO:HB3	1.89	0.55
1:A:461:VAL:HB	1:A:481:ILE:HB	1.88	0.55
1:A:542:LEU:HG	1:A:554:PHE:HB3	1.88	0.55
1:A:1346:ASP:HB2	1:A:1349:THR:HG22	1.89	0.55
2:B:67:ILE:HG22	2:B:78:ILE:HG12	1.88	0.55
2:B:1115:GLU:HA	2:B:1153:LEU:HD13	1.87	0.55
9:P:484:LEU:HD12	15:C:1102:ARG:HH22	1.71	0.55
11:R:44:PRO:HA	11:R:117:LEU:HA	1.89	0.55
3:h:10:ARG:HG3	3:h:39:ARG:HG2	1.87	0.55
3:h:143:VAL:HG21	3:h:192:VAL:HG23	1.88	0.55
14:i:1242:TYR:CD2	14:i:1251:ALA:HB2	2.42	0.55
5:k:454:LEU:O	5:k:458:LEU:N	2.39	0.55
5:k:464:ALA:HB3	6:l:83:ARG:HD3	1.88	0.55
7:n:289:LYS:NZ	18:f:304:TYR:OH	2.40	0.55
15:C:357:ASN:ND2	15:C:362:ASP:OD2	2.40	0.55
16:D:392:LEU:HB2	16:D:405:ILE:HB	1.89	0.55
17:E:647:GLY:O	17:E:648:ARG:NH1	2.40	0.55
19:G:536:ILE:HG23	19:G:573:THR:HB	1.89	0.55
14:I:356:SER:HB2	14:I:360:TYR:H	1.71	0.55
14:I:1375:ILE:HD11	14:I:1401:ILE:HG12	1.88	0.55
14:I:1395:PRO:O	14:I:1399:ARG:HB2	2.07	0.55
14:I:1428:GLN:O	14:I:1432:MET:N	2.38	0.55
18:f:572:SER:OG	18:f:573:ASN:N	2.40	0.55
19:g:316:LEU:HD12	19:g:316:LEU:H	1.72	0.55
2:B:625:ASN:HA	2:B:628:GLU:HB3	1.88	0.55
4:J:314:ASP:O	4:J:315:MET:C	2.49	0.55
4:J:357:VAL:HB	4:J:367:HIS:HB2	1.89	0.55
14:i:75:PRO:HD3	14:i:123:LYS:HE3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:574:ILE:HA	14:i:583:VAL:HG13	1.88	0.55
15:C:1:MET:HB2	15:C:292:ILE:O	2.07	0.55
16:D:1058:TYR:O	16:D:1059:GLU:HB2	2.06	0.55
19:g:208:VAL:HG13	19:g:209:ARG:HG2	1.88	0.55
19:g:524:MET:C	19:g:526:ASP:H	2.13	0.55
1:A:1123:LEU:HD11	1:A:1157:PRO:HG2	1.89	0.55
1:A:1283:ILE:O	16:D:727:LYS:NZ	2.39	0.55
2:B:1303:CYS:HA	2:B:1306:LEU:HD12	1.87	0.55
3:h:156:ASP:OD2	18:f:658:ASN:ND2	2.38	0.55
14:i:817:GLU:HG3	14:i:836:TYR:HA	1.88	0.55
4:j:489:LEU:N	4:j:498:ALA:O	2.40	0.55
4:j:651:PRO:HB3	4:j:765:VAL:HB	1.89	0.55
16:D:101:TRP:HB3	16:D:108:TRP:HB3	1.88	0.55
16:D:215:TYR:HB3	16:D:228:VAL:HB	1.87	0.55
17:E:946:ARG:NH2	17:E:1151:VAL:O	2.35	0.55
17:E:1296:ALA:O	17:E:1300:GLU:HG3	2.07	0.55
14:I:135:ASP:O	14:I:157:ASN:ND2	2.35	0.55
20:m:371:THR:HA	20:m:374:GLN:HG2	1.89	0.55
1:A:122:TYR:HB3	1:A:134:MET:HE3	1.89	0.55
1:A:719:SER:HB2	1:A:739:LEU:HB3	1.88	0.55
1:A:825:PRO:O	1:A:829:ALA:HB2	2.06	0.55
2:B:1246:TYR:HA	2:B:1249:ALA:HB3	1.89	0.55
3:H:125:LYS:HA	18:f:558:LYS:HD2	1.89	0.55
14:I:447:VAL:HG11	14:I:499:GLN:HA	1.89	0.55
19:g:607:LEU:HB3	19:g:635:ALA:HB1	1.89	0.55
4:J:246:GLY:O	4:J:268:THR:OG1	2.25	0.54
3:h:308:ASP:O	18:f:358:ARG:NH2	2.40	0.54
4:j:343:GLY:HA3	4:j:380:GLN:HG3	1.90	0.54
19:G:207:ALA:HA	19:G:210:GLU:HG2	1.89	0.54
14:I:1388:ARG:HA	14:I:1401:ILE:HD13	1.88	0.54
14:I:1450:GLY:O	14:I:1451:PRO:C	2.49	0.54
19:g:118:LEU:HB3	19:g:134:GLN:HB3	1.89	0.54
19:g:645:LEU:O	19:g:646:ARG:NH1	2.40	0.54
2:B:481:VAL:HB	2:B:494:LEU:HB2	1.89	0.54
2:B:1103:LEU:HG	2:B:1137:VAL:HG22	1.90	0.54
4:J:138:ARG:NH2	14:i:433:THR:OG1	2.40	0.54
15:C:701:ALA:HB2	15:C:716:MET:HG3	1.89	0.54
15:C:730:LEU:HD13	15:C:738:LYS:HB3	1.89	0.54
16:D:84:ASN:ND2	16:D:127:THR:O	2.40	0.54
16:D:214:TRP:HB2	16:D:229:LEU:HD13	1.89	0.54
16:D:223:GLU:HB3	16:D:226:CYS:HB3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:512:GLY:HA2	16:D:518:VAL:HA	1.89	0.54
16:D:738:VAL:O	16:D:742:PHE:N	2.40	0.54
17:E:477:GLU:HA	17:E:480:ALA:HB3	1.89	0.54
17:E:872:PRO:HB3	17:E:876:ASN:HD22	1.72	0.54
17:E:895:LEU:O	17:E:946:ARG:NH1	2.39	0.54
17:E:1087:ASN:HA	17:E:1120:PRO:HB2	1.89	0.54
14:I:1596:TRP:HA	14:I:1599:ALA:HB3	1.88	0.54
19:g:589:ALA:HB3	19:g:591:HIS:HB2	1.89	0.54
20:m:8:ALA:HB1	20:m:108:GLY:HA3	1.89	0.54
1:A:460:HIS:HA	1:A:482:PRO:HG2	1.90	0.54
2:B:75:LEU:HD13	2:B:136:MET:SD	2.46	0.54
2:B:435:LEU:HD13	2:B:444:VAL:HG22	1.89	0.54
3:H:380:THR:HG22	12:S:238:ASN:HB2	1.88	0.54
4:J:2:ARG:H	4:J:299:ASP:HB2	1.71	0.54
7:N:199:MET:HA	7:N:202:LEU:HD12	1.90	0.54
8:O:592:GLU:HG3	10:Q:51:SER:H	1.72	0.54
3:h:128:HIS:HB2	3:h:131:GLU:H	1.72	0.54
14:i:460:LYS:NZ	14:i:500:ARG:O	2.41	0.54
16:D:775:GLU:OE2	16:D:779:ARG:NH1	2.40	0.54
19:G:476:VAL:HG23	19:G:477:VAL:HG23	1.88	0.54
19:G:575:TYR:HA	19:G:578:LYS:HD3	1.89	0.54
14:I:362:ILE:HA	14:I:377:THR:HA	1.89	0.54
18:f:599:GLN:HA	18:f:602:HIS:HB3	1.88	0.54
2:B:968:GLU:HG2	2:B:985:ARG:NE	2.22	0.54
2:B:1263:SER:HB2	2:B:1268:ARG:HD2	1.89	0.54
4:J:119:LEU:HB3	4:J:131:TRP:HB3	1.88	0.54
3:h:344:GLN:HE22	19:g:405:ASN:HB3	1.73	0.54
3:h:370:ALA:HB1	12:s:229:HIS:HD2	1.72	0.54
12:s:284:THR:HG22	12:s:289:PRO:HA	1.89	0.54
16:D:776:ARG:HA	16:D:779:ARG:HE	1.71	0.54
17:E:642:GLN:HB3	17:E:650:VAL:HG11	1.90	0.54
17:E:1026:GLN:OE1	17:E:1057:ARG:NH1	2.40	0.54
18:F:257:GLU:HG3	18:F:258:VAL:H	1.70	0.54
14:I:1045:LEU:HA	14:I:1048:GLU:HG3	1.89	0.54
19:g:20:ILE:HG12	19:g:24:ILE:HD11	1.89	0.54
19:g:163:ARG:NH2	19:g:186:CYS:O	2.41	0.54
1:A:69:GLN:HB3	1:A:82:LEU:HB3	1.89	0.54
2:B:365:ARG:HB3	2:B:380:LYS:HB3	1.88	0.54
4:J:646:LYS:HB3	4:J:689:LYS:HE2	1.89	0.54
5:K:489:LYS:HA	5:K:492:ILE:HD12	1.88	0.54
11:R:67:VAL:HG22	11:R:124:ALA:HB1	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:h:139:LEU:HB2	3:h:191:PRO:HG2	1.89	0.54
14:i:1499:GLY:HA2	14:i:1502:HIS:HB2	1.89	0.54
4:j:229:PRO:HB2	7:n:22:ILE:HD12	1.90	0.54
7:n:125:ALA:O	7:n:129:LYS:NZ	2.37	0.54
15:C:329:LYS:HG3	15:C:348:ASN:HD21	1.72	0.54
15:C:345:GLN:HA	15:C:350:VAL:HG22	1.89	0.54
16:D:957:LYS:HA	16:D:960:TYR:HB2	1.90	0.54
17:E:64:GLY:H	17:E:69:GLU:HB2	1.71	0.54
18:F:299:LEU:HD12	18:F:319:LEU:HD11	1.89	0.54
18:f:556:ASP:O	18:f:560:ALA:N	2.33	0.54
1:A:513:LEU:HD23	1:A:515:PRO:HD2	1.90	0.54
2:B:904:LEU:O	2:B:908:TRP:HB2	2.08	0.54
4:J:242:PHE:CZ	4:J:253:CYS:HB2	2.42	0.54
4:J:708:ASP:HB3	4:J:740:ASP:H	1.71	0.54
10:Q:87:SER:HA	10:Q:90:TRP:HB2	1.88	0.54
14:i:907:ILE:HG22	14:i:941:ARG:HG2	1.90	0.54
14:i:1653:GLU:OE2	14:i:1660:ARG:NH1	2.39	0.54
4:j:384:HIS:HD2	4:j:446:THR:HG21	1.73	0.54
4:j:456:TRP:HE1	4:j:490:LEU:HD22	1.71	0.54
15:C:371:ILE:HG21	15:C:389:LEU:HD11	1.90	0.54
16:D:13:ASN:HB3	16:D:15:VAL:HG23	1.88	0.54
16:D:667:GLU:HA	16:D:670:LYS:HD3	1.89	0.54
1:A:1211:VAL:HA	1:A:1214:CYS:HB2	1.89	0.54
3:H:204:ARG:HD3	3:H:264:PRO:HB3	1.90	0.54
3:h:291:ASP:O	18:f:413:ARG:NH1	2.41	0.54
14:i:462:ALA:HA	14:i:472:ILE:HA	1.90	0.54
14:i:510:LYS:HE3	14:i:512:HIS:CD2	2.43	0.54
4:j:653:GLU:HA	4:j:764:TYR:HD2	1.73	0.54
15:C:297:HIS:HA	15:C:335:ILE:HD13	1.89	0.54
15:C:350:VAL:HB	15:C:371:ILE:O	2.08	0.54
16:D:973:ARG:NH1	18:F:630:PRO:HB2	2.22	0.54
17:E:1043:ILE:HD11	17:E:1058:TYR:HB2	1.89	0.54
14:I:274:ASN:HB3	14:I:277:ARG:HB2	1.89	0.54
14:I:1597:TYR:CE2	14:I:1662:LEU:HD22	2.42	0.54
2:B:60:ARG:HH11	2:B:84:ALA:HB2	1.73	0.54
2:B:290:LEU:HB3	2:B:322:MET:HE3	1.89	0.54
2:B:292:GLN:NE2	2:B:294:SER:O	2.41	0.54
7:N:17:GLY:O	7:N:18:TYR:C	2.50	0.54
7:N:219:GLU:HG2	7:N:222:ARG:HH21	1.73	0.54
13:T:96:GLU:O	13:T:100:GLU:N	2.40	0.54
3:h:120:ARG:NH2	20:m:431:GLU:OE1	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1020:ASP:HA	14:i:1023:ILE:HD12	1.90	0.54
4:j:241:LEU:HD13	4:j:252:LEU:HD21	1.90	0.54
7:n:207:LYS:O	7:n:211:ASN:ND2	2.41	0.54
15:C:704:SER:HB3	15:C:709:ASN:HB2	1.90	0.54
15:C:909:VAL:O	15:C:913:VAL:HG22	2.08	0.54
15:C:927:ASN:HB3	15:C:1041:PHE:HB2	1.89	0.54
16:D:239:GLN:HA	16:D:250:VAL:O	2.07	0.54
18:F:293:HIS:O	18:F:297:TYR:N	2.35	0.54
18:F:510:ILE:HG22	18:F:533:LEU:HD21	1.90	0.54
19:G:193:PHE:HB3	19:G:249:ILE:HG12	1.90	0.54
14:I:80:LEU:HD13	14:I:94:LEU:HD11	1.89	0.54
14:I:970:THR:C	14:I:972:SER:H	2.16	0.54
19:g:319:TYR:HB3	19:g:326:PHE:HB2	1.88	0.54
19:g:513:ARG:O	19:g:517:LYS:NZ	2.34	0.54
2:B:475:ARG:HG2	2:B:482:GLU:HB2	1.90	0.54
2:B:912:LEU:HB3	2:B:917:GLU:HB2	1.90	0.54
3:H:10:ARG:HG3	3:H:39:ARG:HB3	1.90	0.54
3:H:325:LYS:H	3:H:329:LEU:HD12	1.73	0.54
9:P:574:ILE:HA	10:Q:89:TYR:HE1	1.73	0.54
11:R:36:PHE:HA	11:R:127:ASN:HA	1.90	0.54
12:S:271:VAL:HG23	12:S:337:GLY:HA2	1.89	0.54
13:T:52:LEU:HD12	13:T:57:VAL:HG21	1.90	0.54
13:T:149:VAL:HG13	13:T:162:GLU:HB3	1.90	0.54
14:i:128:GLU:HA	14:i:142:MET:HA	1.90	0.54
12:s:220:GLN:O	12:s:224:SER:N	2.39	0.54
16:D:15:VAL:HG13	16:D:18:ARG:HH11	1.72	0.54
18:F:137:LEU:HD21	18:F:186:ALA:HA	1.88	0.54
18:F:296:GLY:O	18:F:300:VAL:HG23	2.08	0.54
19:G:144:ASP:O	19:G:148:ASN:ND2	2.40	0.54
14:I:21:SER:HB3	14:I:71:MET:HG3	1.90	0.54
14:I:689:ARG:HD3	14:I:698:GLN:HG3	1.90	0.54
20:M:444:HIS:HA	20:M:447:LEU:HB3	1.88	0.54
1:A:473:ALA:HB3	1:A:476:GLU:HG3	1.89	0.54
1:A:536:GLN:NE2	1:A:580:THR:O	2.41	0.54
1:A:923:LYS:HG3	1:A:931:GLU:HG3	1.89	0.54
1:A:1226:TYR:O	1:A:1230:LEU:HG	2.08	0.54
2:B:67:ILE:HB	2:B:76:LEU:HD11	1.89	0.54
14:i:222:ASN:ND2	14:i:247:GLU:HA	2.23	0.54
14:i:850:ARG:HH22	14:i:862:GLU:HG2	1.71	0.54
14:i:868:LEU:HD22	14:i:873:GLN:HB2	1.90	0.54
4:j:287:GLY:N	4:j:291:GLY:O	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:s:181:ASP:HA	12:s:205:GLY:HA3	1.90	0.54
15:C:43:VAL:HB	15:C:53:HIS:HB2	1.90	0.54
15:C:308:ASP:HB3	15:C:314:ILE:HD12	1.89	0.54
15:C:442:PHE:HD2	15:C:445:ASN:HB2	1.73	0.54
15:C:446:PRO:HG2	16:D:908:LYS:HE3	1.89	0.54
15:C:1035:ILE:HG12	15:C:1046:VAL:HG21	1.89	0.54
16:D:678:TYR:HA	16:D:681:VAL:HG12	1.90	0.54
16:D:888:ASP:O	16:D:892:GLN:NE2	2.38	0.54
17:E:767:TYR:O	17:E:770:TYR:N	2.40	0.54
18:F:623:GLU:OE2	18:F:655:ARG:NH2	2.41	0.54
18:f:364:ARG:HH21	18:f:368:LYS:HD3	1.73	0.54
19:g:639:LYS:HB2	19:g:640:LYS:HE2	1.90	0.54
1:A:1122:ALA:HA	1:A:1125:MET:HE3	1.89	0.53
2:B:894:ASN:O	2:B:897:GLN:NE2	2.40	0.53
3:H:408:ALA:HB3	3:H:412:HIS:CE1	2.42	0.53
4:J:15:GLU:OE2	7:N:4:ARG:NH1	2.41	0.53
4:J:629:GLU:HG2	4:J:656:ARG:HH12	1.72	0.53
3:h:282:LEU:HD21	18:f:484:VAL:HG11	1.90	0.53
14:i:352:ILE:HD11	14:i:391:LEU:HD22	1.90	0.53
4:j:384:HIS:CE1	4:j:424:LEU:HB3	2.43	0.53
4:j:711:LEU:HB2	4:j:739:VAL:HB	1.90	0.53
16:D:522:SER:O	16:D:523:LEU:C	2.50	0.53
17:E:65:ASN:O	17:E:66:SER:C	2.51	0.53
17:E:187:LEU:O	17:E:189:ALA:N	2.41	0.53
17:E:968:VAL:HG11	17:E:994:LEU:HD13	1.89	0.53
19:G:496:CYS:SG	19:G:537:ILE:HG23	2.48	0.53
14:I:132:GLY:HA2	14:I:138:VAL:HA	1.90	0.53
14:I:352:ILE:HG21	14:I:386:LEU:HD11	1.90	0.53
14:I:371:ARG:NH2	14:I:385:ASP:OD1	2.37	0.53
14:I:1011:ALA:O	14:I:1015:ARG:HB2	2.08	0.53
20:m:128:VAL:HA	20:m:131:LEU:HD12	1.90	0.53
2:B:1040:LEU:HD12	2:B:1059:ILE:HG23	1.90	0.53
3:H:287:GLN:HE22	18:F:440:ARG:HG3	1.72	0.53
8:O:483:THR:OG1	15:C:1126:ARG:NH1	2.42	0.53
8:O:487:ARG:HH22	15:C:1102:ARG:HH11	1.56	0.53
14:i:851:ARG:HE	14:i:859:ILE:HD11	1.73	0.53
14:i:920:ARG:NH1	14:i:944:MET:SD	2.81	0.53
4:j:3:LEU:HD21	4:j:252:LEU:HB3	1.89	0.53
4:j:69:LYS:HB3	4:j:391:SER:HA	1.89	0.53
4:j:491:PRO:HG2	4:j:494:LYS:HB2	1.90	0.53
6:l:114:VAL:HG13	6:l:118:GLN:HB2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:n:123:ASP:OD1	20:m:306:TRP:N	2.41	0.53
15:C:862:PHE:HB2	15:C:1185:ARG:HD3	1.89	0.53
16:D:521:TYR:HD1	16:D:528:LEU:HA	1.72	0.53
17:E:1188:LEU:HB2	17:E:1198:VAL:HG21	1.88	0.53
14:I:208:SER:O	14:I:217:ALA:HA	2.08	0.53
14:I:1247:MET:HE3	14:I:1250:ASP:HB2	1.90	0.53
20:M:391:MET:HA	20:M:394:ILE:HD12	1.90	0.53
18:f:473:ALA:HB1	18:f:477:VAL:HG23	1.89	0.53
20:m:19:PRO:HA	20:m:22:CYS:HB3	1.89	0.53
2:B:643:ILE:HD13	2:B:651:ILE:HD12	1.91	0.53
2:B:1048:PHE:O	2:B:1051:GLN:NE2	2.41	0.53
2:B:1125:LYS:HE3	14:i:1665:GLU:HB3	1.90	0.53
4:J:248:ASN:ND2	6:L:74:ASN:OD1	2.42	0.53
7:N:263:GLU:HB2	20:M:438:ARG:HH12	1.73	0.53
14:i:173:ILE:HG23	14:i:181:ILE:HA	1.90	0.53
14:i:431:LEU:HD22	14:i:459:LYS:HD2	1.90	0.53
5:k:464:ALA:HA	5:k:467:VAL:HG12	1.89	0.53
15:C:938:PRO:HB2	15:C:939:PRO:HD3	1.90	0.53
16:D:584:ARG:HD2	16:D:609:TYR:CE2	2.44	0.53
17:E:1029:LEU:HD13	17:E:1042:LEU:HD12	1.90	0.53
18:F:129:MET:HE1	18:F:162:ASN:HA	1.90	0.53
19:G:316:LEU:HD22	19:G:345:LEU:HD11	1.91	0.53
14:I:1449:GLN:O	14:I:1450:GLY:C	2.51	0.53
20:M:393:ARG:HE	20:M:397:THR:HG23	1.72	0.53
19:g:280:HIS:HB2	19:g:301:LEU:HD21	1.90	0.53
19:g:512:MET:HE2	19:g:541:ILE:HD11	1.89	0.53
20:m:423:THR:O	20:m:427:GLN:N	2.36	0.53
2:B:152:ARG:HB2	2:B:175:VAL:HB	1.91	0.53
2:B:173:PHE:HZ	2:B:229:ARG:HH21	1.56	0.53
2:B:1134:ARG:HH21	14:i:1668:MET:HG3	1.73	0.53
4:J:625:LEU:HA	4:J:628:ALA:HB3	1.89	0.53
4:j:282:GLN:OE1	4:j:336:ARG:NH1	2.41	0.53
4:j:398:THR:HG22	4:j:402:ARG:H	1.73	0.53
4:j:556:ALA:HB1	4:j:570:ARG:HA	1.89	0.53
5:k:445:THR:HA	5:k:448:ARG:HB2	1.90	0.53
12:s:180:SER:OG	12:s:181:ASP:N	2.39	0.53
12:s:312:PRO:HA	12:s:315:ARG:HB2	1.91	0.53
15:C:63:TYR:H	15:C:78:GLY:HA2	1.73	0.53
15:C:651:ARG:HD2	15:C:678:TRP:HE1	1.74	0.53
15:C:708:LYS:C	15:C:710:TYR:H	2.16	0.53
15:C:1017:ASN:HB2	15:C:1018:PRO:CD	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:602:MET:CG	16:D:609:TYR:HB3	2.37	0.53
16:D:1053:LEU:O	16:D:1056:ARG:NH2	2.40	0.53
18:F:618:TYR:HB3	18:F:632:PHE:HE2	1.72	0.53
14:I:256:SER:OG	14:I:258:ASP:OD1	2.23	0.53
14:I:606:ALA:O	14:I:614:ARG:NH2	2.42	0.53
14:I:1182:ASP:HA	14:I:1185:MET:HG2	1.89	0.53
14:I:1226:GLU:HG3	14:I:1250:ASP:HB3	1.91	0.53
18:f:483:LEU:HA	18:f:486:ARG:HB2	1.90	0.53
19:g:74:VAL:HG22	19:g:84:LYS:HA	1.90	0.53
1:A:214:TYR:HB2	1:A:226:MET:HG2	1.90	0.53
1:A:1329:CYS:HB3	1:A:1334:ASP:H	1.74	0.53
14:i:1104:LEU:HG	14:i:1109:GLY:H	1.73	0.53
7:n:234:ARG:HH11	18:f:671:THR:HG21	1.73	0.53
12:s:306:LEU:O	12:s:310:ASN:ND2	2.42	0.53
15:C:1017:ASN:HB2	15:C:1018:PRO:HD2	1.90	0.53
16:D:591:ARG:HE	16:D:629:PHE:H	1.54	0.53
16:D:943:ALA:HB1	16:D:956:VAL:HG13	1.90	0.53
18:f:405:GLU:HA	18:f:408:LEU:HB2	1.90	0.53
19:g:51:SER:O	19:g:83:TYR:OH	2.24	0.53
19:g:403:ALA:O	19:g:407:TYR:N	2.41	0.53
1:A:12:LEU:HD21	1:A:30:ALA:HB1	1.90	0.53
1:A:799:THR:HG22	2:B:741:LYS:HG2	1.91	0.53
1:A:975:LEU:HA	1:A:978:PHE:HB3	1.90	0.53
1:A:1104:PHE:HA	1:A:1107:LYS:HG2	1.89	0.53
4:J:146:SER:OG	4:J:164:THR:O	2.24	0.53
14:i:1609:LEU:HB3	14:i:1663:VAL:HG22	1.91	0.53
4:j:598:LYS:HG3	4:j:602:LEU:HD23	1.89	0.53
4:j:700:ALA:HB1	4:j:707:GLN:HG2	1.91	0.53
7:n:9:PHE:HE2	7:n:22:ILE:HG12	1.73	0.53
7:n:274:GLN:NE2	18:f:417:GLN:O	2.41	0.53
15:C:552:GLN:HB2	16:D:376:TYR:HD1	1.73	0.53
15:C:727:ILE:HG21	15:C:752:ARG:HH12	1.74	0.53
15:C:964:ALA:HB2	15:C:1006:LEU:HB3	1.90	0.53
16:D:516:GLY:HA3	16:D:534:LEU:H	1.73	0.53
16:D:1091:LEU:C	16:D:1093:SER:H	2.17	0.53
18:F:431:GLU:H	18:F:433:LYS:HE2	1.74	0.53
14:I:473:GLN:HA	14:I:482:THR:HA	1.89	0.53
14:I:529:TYR:OH	14:I:547:ARG:NH1	2.42	0.53
14:I:614:ARG:NH2	14:I:631:GLN:OE1	2.42	0.53
14:I:1185:MET:HE1	14:I:1193:ALA:HB1	1.91	0.53
19:g:36:LEU:HD21	19:g:52:LEU:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:ALA:HA	1:A:83:PRO:HA	1.90	0.53
3:H:297:THR:OG1	3:H:298:SER:N	2.42	0.53
4:J:71:GLN:NE2	4:J:112:TRP:HE3	2.06	0.53
4:J:561:PHE:HA	4:J:565:ARG:O	2.09	0.53
8:O:530:PHE:O	8:O:534:GLU:HB2	2.09	0.53
14:i:1357:ARG:HB3	14:i:1360:ALA:HB3	1.90	0.53
4:j:513:THR:OG1	4:j:592:ARG:NH2	2.42	0.53
15:C:42:LEU:HD22	15:C:51:LEU:HD11	1.89	0.53
15:C:1078:LYS:HZ1	15:C:1095:LEU:H	1.57	0.53
17:E:283:PHE:HA	17:E:286:MET:HG2	1.89	0.53
17:E:710:ILE:HG12	17:E:715:VAL:HG12	1.91	0.53
19:g:191:LYS:HZ2	19:g:402:ARG:HG2	1.73	0.53
19:g:276:PRO:HA	19:g:279:LEU:HB2	1.91	0.53
19:g:524:MET:C	19:g:526:ASP:N	2.65	0.53
20:m:101:LEU:HD13	20:m:112:PRO:HG3	1.89	0.53
1:A:42:ARG:HD2	1:A:380:LEU:HB2	1.90	0.53
2:B:1088:LYS:HA	2:B:1091:LYS:HD2	1.91	0.53
3:h:272:LEU:O	3:h:275:THR:OG1	2.27	0.53
4:j:79:ALA:H	4:j:112:TRP:HE1	1.57	0.53
4:j:383:ARG:NH1	4:j:426:ASN:O	2.42	0.53
4:j:683:ALA:O	4:j:687:ASN:ND2	2.41	0.53
5:k:457:GLU:OE2	6:l:80:SER:OG	2.27	0.53
7:n:42:LEU:H	7:n:42:LEU:HD23	1.74	0.53
7:n:117:ASP:O	7:n:121:ALA:N	2.39	0.53
16:D:55:LYS:HA	16:D:621:THR:HB	1.91	0.53
17:E:10:HIS:HB3	17:E:146:LEU:HD11	1.91	0.53
17:E:613:VAL:HB	17:E:618:LEU:HD13	1.90	0.53
18:F:470:ARG:HA	18:F:475:ALA:H	1.72	0.53
14:I:998:TYR:OH	14:I:1008:LYS:NZ	2.42	0.53
14:I:1020:ASP:HA	14:I:1023:ILE:HD12	1.91	0.53
18:f:188:ASP:O	18:f:192:ALA:HB3	2.07	0.53
18:f:540:ASN:HD21	20:m:449:LEU:HA	1.74	0.53
1:A:41:ASP:OD1	1:A:45:ARG:N	2.39	0.53
2:B:279:ASN:O	2:B:283:GLU:N	2.42	0.53
2:B:744:LYS:HG3	2:B:771:ASN:HD21	1.74	0.53
4:J:22:TRP:HE1	4:J:284:ALA:HB3	1.74	0.53
4:J:604:ARG:NH2	14:I:759:GLN:OE1	2.42	0.53
9:P:469:VAL:O	9:P:473:LYS:HG2	2.08	0.53
13:T:96:GLU:HG3	13:T:137:LEU:HD22	1.91	0.53
3:h:15:THR:HB	3:h:24:LYS:HE2	1.90	0.53
14:i:1703:ASP:HB2	14:i:1712:ILE:HD13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:669:LEU:HD11	16:D:677:ALA:HB3	1.90	0.53
17:E:4:ARG:NH1	17:E:188:GLN:OE1	2.41	0.53
17:E:895:LEU:HD12	17:E:897:MET:HB3	1.90	0.53
18:F:507:VAL:O	18:F:511:TYR:CB	2.57	0.53
14:I:860:ILE:HG22	14:I:864:TRP:NE1	2.23	0.53
18:f:546:GLN:NE2	18:f:550:THR:OG1	2.42	0.53
1:A:1340:HIS:HA	1:A:1342:ARG:NH2	2.24	0.53
2:B:185:LYS:HA	2:B:196:VAL:H	1.74	0.53
2:B:612:LEU:HA	2:B:643:ILE:O	2.09	0.53
2:B:1197:ALA:HA	2:B:1200:LEU:HB2	1.91	0.53
3:H:119:VAL:HG13	3:H:130:LYS:HZ3	1.74	0.53
4:J:113:SER:HA	4:J:153:TRP:CG	2.44	0.53
7:N:84:LYS:HD2	7:N:87:TYR:CD1	2.44	0.53
10:Q:13:ALA:HB3	10:Q:67:VAL:HG22	1.91	0.53
3:h:30:LEU:HA	3:h:33:ARG:HG2	1.91	0.53
3:h:419:ARG:O	3:h:423:GLN:NE2	2.40	0.53
14:i:561:ASN:ND2	14:i:626:PRO:O	2.42	0.53
14:i:943:ASP:C	14:I:988:ALA:HB1	2.34	0.53
4:j:384:HIS:CD2	4:j:446:THR:HG21	2.44	0.53
15:C:41:VAL:HB	15:C:55:LEU:HB2	1.91	0.53
16:D:1076:PHE:HB2	16:D:1088:PHE:HE1	1.74	0.53
17:E:310:SER:HB2	17:E:485:ALA:HB2	1.92	0.53
17:E:441:GLY:O	17:E:445:TRP:HB2	2.09	0.53
19:G:460:PHE:HA	19:G:466:TYR:HE1	1.73	0.53
14:I:21:SER:OG	14:I:68:ILE:O	2.25	0.53
14:I:1681:CYS:SG	14:I:1682:GLU:N	2.82	0.53
19:g:255:ASN:HB3	19:g:258:ALA:HB3	1.91	0.53
1:A:566:TYR:HB3	1:A:585:ILE:HD12	1.89	0.52
1:A:695:ALA:HB1	1:A:700:ASP:HB3	1.90	0.52
2:B:542:CYS:HA	2:B:579:VAL:HG11	1.91	0.52
4:J:329:GLU:HB2	14:i:875:ASP:HB2	1.90	0.52
8:O:633:ASN:HA	12:S:285:LEU:HD13	1.91	0.52
9:P:513:ARG:NE	15:C:1007:LEU:HD11	2.23	0.52
3:h:367:GLU:HG3	12:s:226:ASN:HD21	1.73	0.52
14:i:498:ASN:HD21	14:i:502:THR:HG22	1.73	0.52
14:i:1027:THR:O	14:i:1031:LYS:NZ	2.40	0.52
4:j:254:ASP:HB2	4:j:258:TRP:H	1.74	0.52
4:j:465:ILE:HB	4:j:478:LEU:HD11	1.91	0.52
7:n:86:LEU:HD21	7:n:96:GLU:HG3	1.92	0.52
16:D:22:TRP:HZ3	16:D:43:LEU:HB2	1.73	0.52
16:D:394:THR:O	16:D:402:HIS:HA	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:F:669:ILE:HA	18:F:672:GLN:HB2	1.91	0.52
19:G:243:PHE:CZ	19:G:267:PRO:HD2	2.43	0.52
14:I:1014:LYS:HE3	14:I:1041:ILE:HG23	1.89	0.52
19:g:177:PRO:HG2	19:g:237:THR:HA	1.90	0.52
20:m:35:TYR:HE2	20:m:50:LEU:H	1.57	0.52
20:m:44:LYS:HB3	20:m:45:PRO:HD3	1.91	0.52
20:m:105:LYS:HD2	20:m:111:PRO:HA	1.90	0.52
1:A:504:SER:O	1:A:530:ILE:N	2.36	0.52
5:K:424:LYS:HE3	7:N:125:ALA:HB1	1.90	0.52
14:i:332:GLU:HB3	14:i:344:LYS:HB2	1.92	0.52
14:i:535:TRP:CH2	14:i:556:VAL:HG11	2.44	0.52
14:i:584:ILE:HG12	14:i:593:SER:HA	1.91	0.52
4:j:198:ASN:OD1	4:j:418:ASN:ND2	2.38	0.52
4:j:515:MET:HB3	4:j:561:PHE:CE2	2.44	0.52
4:j:747:LYS:HA	4:j:750:GLU:HG2	1.91	0.52
5:k:467:VAL:O	5:k:471:LEU:N	2.39	0.52
7:n:46:TYR:HB2	7:n:104:LEU:HD13	1.90	0.52
7:n:247:GLU:HB2	18:f:672:GLN:HB3	1.91	0.52
15:C:195:LEU:H	15:C:208:MET:HA	1.74	0.52
15:C:647:GLN:HG3	15:C:678:TRP:HH2	1.75	0.52
15:C:651:ARG:NH2	15:C:655:GLN:OE1	2.42	0.52
16:D:1075:ALA:HA	17:E:1105:TRP:HB3	1.91	0.52
17:E:565:SER:HA	17:E:568:HIS:HB2	1.90	0.52
14:I:494:TRP:HB3	14:I:507:ARG:HB3	1.90	0.52
14:I:639:ALA:HA	14:I:642:THR:HG22	1.92	0.52
18:f:439:ALA:O	18:f:443:THR:N	2.42	0.52
18:f:445:LEU:O	18:f:446:ALA:C	2.52	0.52
1:A:1244:LYS:HA	1:A:1247:ILE:HD12	1.92	0.52
5:K:414:LYS:HD2	5:K:415:LEU:HD22	1.92	0.52
7:N:2:SER:OG	7:N:3:PHE:N	2.41	0.52
7:N:66:LEU:HD23	7:N:83:ILE:HA	1.91	0.52
7:N:257:ASP:O	7:N:261:ASN:ND2	2.38	0.52
11:R:94:ARG:HD2	11:R:99:GLN:HG2	1.91	0.52
3:h:379:LEU:HA	3:h:382:LYS:HE3	1.90	0.52
14:i:354:LEU:HD12	14:i:382:LEU:HD13	1.91	0.52
4:j:167:ASN:HA	4:j:183:LYS:HA	1.90	0.52
4:j:658:ALA:HB1	4:j:691:PHE:CZ	2.44	0.52
4:j:707:GLN:HE22	4:j:733:MET:HA	1.73	0.52
12:s:194:LYS:HD2	12:s:195:GLU:HG3	1.91	0.52
16:D:30:ALA:HB2	16:D:40:VAL:HG13	1.91	0.52
16:D:525:HIS:HB3	16:D:527:THR:HG23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:505:LEU:HD22	14:I:513:LEU:HD11	1.90	0.52
20:M:350:LYS:HG3	20:M:353:ASN:H	1.75	0.52
19:g:496:CYS:HB2	19:g:512:MET:HG3	1.89	0.52
1:A:114:MET:HA	1:A:124:GLY:O	2.09	0.52
1:A:414:ALA:HA	1:A:422:ALA:O	2.10	0.52
1:A:729:ARG:HH21	15:C:977:THR:HA	1.73	0.52
2:B:305:TYR:HA	2:B:312:LEU:HA	1.90	0.52
2:B:672:ALA:HB3	2:B:718:ARG:NH2	2.24	0.52
2:B:714:ASP:O	2:B:717:THR:HG22	2.09	0.52
3:H:243:PHE:HA	3:H:246:LYS:HD2	1.91	0.52
4:J:106:ALA:O	4:J:124:GLU:N	2.42	0.52
4:J:180:ASN:ND2	4:J:216:PHE:O	2.43	0.52
4:J:225:LEU:HD23	6:L:81:GLU:HG2	1.89	0.52
4:J:249:THR:N	4:J:268:THR:OG1	2.43	0.52
7:N:274:GLN:HG2	18:F:416:GLY:C	2.34	0.52
14:i:576:ARG:HA	14:i:581:THR:HA	1.91	0.52
14:i:1205:VAL:HG12	14:i:1209:LEU:HD11	1.91	0.52
14:i:1667:SER:O	14:i:1670:ARG:NH1	2.42	0.52
4:j:103:HIS:NE2	4:j:127:SER:O	2.43	0.52
4:j:388:LEU:HG	4:j:394:ILE:HA	1.92	0.52
7:n:16:LEU:HD13	7:n:105:TYR:HB2	1.89	0.52
15:C:494:SER:OG	15:C:495:ASN:N	2.42	0.52
16:D:391:VAL:HB	16:D:428:ILE:HD12	1.91	0.52
16:D:429:THR:HG21	16:D:523:LEU:HD22	1.90	0.52
16:D:1044:ASN:OD1	17:E:1100:ARG:NH1	2.40	0.52
18:F:448:LEU:HG	20:M:447:LEU:HD13	1.90	0.52
19:G:205:GLU:OE1	19:G:219:ASN:ND2	2.42	0.52
14:I:223:ARG:NE	14:I:236:SER:OG	2.42	0.52
2:B:58:ASN:ND2	2:B:62:THR:OG1	2.42	0.52
6:L:57:GLN:HG3	6:L:61:ARG:HH12	1.75	0.52
7:N:9:PHE:CE2	7:N:27:PHE:HB3	2.45	0.52
8:O:436:LYS:NZ	9:P:433:GLU:OE1	2.38	0.52
9:P:572:LEU:O	9:P:576:ASP:HB2	2.10	0.52
10:Q:76:THR:HG23	10:Q:86:ILE:HG12	1.92	0.52
3:h:59:LEU:HB3	3:h:86:ILE:HG12	1.91	0.52
3:h:363:PHE:HE2	19:g:29:PHE:HA	1.73	0.52
14:i:1146:LYS:HA	14:i:1149:GLU:HB2	1.91	0.52
4:j:149:TYR:H	4:j:163:CYS:HB2	1.75	0.52
15:C:877:ASN:O	15:C:1142:VAL:HB	2.08	0.52
15:C:1051:LEU:HD22	15:C:1055:VAL:HG11	1.92	0.52
17:E:1287:LYS:HD2	17:E:1324:ALA:HB3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:1565:LYS:HG2	14:I:1598:GLU:HB2	1.92	0.52
20:m:11:ARG:NH1	20:m:133:GLY:O	2.42	0.52
20:m:363:TYR:OH	20:m:367:ARG:NH2	2.43	0.52
1:A:27:PHE:HA	1:A:40:PHE:O	2.10	0.52
1:A:118:ARG:HG2	1:A:158:TRP:HB3	1.91	0.52
1:A:521:ASN:HB2	15:C:993:VAL:HG13	1.92	0.52
3:h:185:VAL:HG11	3:h:191:PRO:HD3	1.92	0.52
14:i:1577:ARG:HD3	14:i:1692:ASN:HA	1.92	0.52
15:C:244:THR:HG21	15:C:257:LYS:HD2	1.91	0.52
15:C:306:TYR:O	15:C:313:VAL:HA	2.09	0.52
16:D:532:HIS:HA	16:D:576:MET:HB3	1.91	0.52
17:E:265:SER:HB3	17:E:274:GLN:HE22	1.75	0.52
19:G:380:GLN:HA	19:G:383:ARG:HG2	1.91	0.52
14:I:246:ARG:NH1	20:M:31:LYS:O	2.42	0.52
14:I:498:ASN:ND2	14:I:502:THR:OG1	2.42	0.52
20:m:70:THR:HB	20:m:87:PRO:HG2	1.91	0.52
1:A:591:LEU:HD13	1:A:628:VAL:HG21	1.91	0.52
1:A:723:VAL:HG13	1:A:739:LEU:HD12	1.91	0.52
2:B:468:ILE:HA	2:B:473:VAL:HA	1.92	0.52
2:B:557:ASN:HD21	2:B:562:LEU:HB2	1.75	0.52
2:B:671:CYS:HB3	2:B:674:HIS:HB2	1.90	0.52
2:B:1300:LEU:HD11	2:B:1333:TYR:CE2	2.45	0.52
4:J:435:GLN:HB2	14:i:474:ASP:OD2	2.10	0.52
9:P:524:ALA:O	9:P:525:LYS:C	2.52	0.52
10:Q:199:ASP:HA	10:Q:202:ARG:HB2	1.92	0.52
13:T:97:ARG:O	13:T:100:GLU:HB2	2.09	0.52
3:h:362:LEU:HB3	19:g:21:TYR:HD1	1.75	0.52
6:l:65:GLU:HA	6:l:68:LYS:HB2	1.91	0.52
15:C:464:SER:HB2	15:C:468:ASN:H	1.74	0.52
16:D:79:CYS:HB3	16:D:92:SER:H	1.75	0.52
16:D:610:ILE:HG21	16:D:660:ARG:HG2	1.92	0.52
17:E:187:LEU:C	17:E:189:ALA:N	2.61	0.52
14:I:181:ILE:HG23	14:I:209:LEU:HD21	1.92	0.52
14:I:1434:VAL:HG11	14:I:1473:GLN:HE21	1.75	0.52
14:I:1452:GLU:O	14:I:1453:VAL:C	2.53	0.52
20:M:40:CYS:HA	20:M:47:ARG:HD2	1.92	0.52
18:f:573:ASN:HB3	18:f:604:VAL:HG21	1.92	0.52
1:A:252:TRP:HA	1:A:257:TYR:O	2.09	0.52
2:B:1035:MET:HE3	2:B:1058:HIS:HB3	1.91	0.52
3:H:92:GLU:H	3:H:97:LYS:HD3	1.75	0.52
4:J:382:GLU:HG3	4:J:469:GLN:HG3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:625:LEU:O	4:J:629:GLU:N	2.39	0.52
4:J:688:ILE:HD11	4:J:710:VAL:HA	1.92	0.52
5:K:406:SER:HB2	5:K:409:ARG:HH21	1.74	0.52
9:P:516:ARG:HD2	9:P:519:PHE:HD2	1.75	0.52
10:Q:135:ALA:HB3	10:Q:165:ASP:HA	1.90	0.52
14:i:1545:ASN:HA	14:i:1548:LEU:HB2	1.91	0.52
4:j:644:VAL:HG12	4:j:659:GLU:HB2	1.92	0.52
5:k:499:LEU:HD12	5:k:502:LEU:HB2	1.92	0.52
6:l:111:LEU:HA	6:l:114:VAL:HB	1.92	0.52
12:s:206:ARG:NH2	19:g:79:SER:OG	2.42	0.52
15:C:388:ILE:HG13	15:C:397:LEU:HA	1.91	0.52
15:C:937:LEU:H	15:C:940:ARG:HD2	1.73	0.52
14:I:223:ARG:HG3	14:I:238:ASP:HA	1.92	0.52
14:I:692:MET:HE1	14:I:697:LYS:O	2.10	0.52
14:I:1734:TRP:HH2	14:I:1754:MET:H	1.58	0.52
1:A:81:ILE:HB	1:A:90:PHE:HB2	1.91	0.52
1:A:545:GLU:OE2	1:A:569:ARG:NH1	2.42	0.52
2:B:87:PHE:HB2	2:B:138:PRO:HD3	1.92	0.52
2:B:102:HIS:NE2	2:B:120:THR:O	2.39	0.52
8:O:550:LEU:HD21	11:R:21:GLU:HG2	1.92	0.52
9:P:571:GLN:HA	9:P:574:ILE:HG22	1.92	0.52
3:h:192:VAL:HG13	3:h:193:LEU:HG	1.92	0.52
14:i:539:SER:HB2	14:i:607:LEU:HB2	1.91	0.52
14:i:911:ASP:O	14:i:912:PRO:C	2.53	0.52
14:i:1140:ARG:HA	14:i:1144:LYS:HD3	1.92	0.52
4:j:429:ILE:O	4:j:444:PHE:N	2.41	0.52
4:j:688:ILE:HG13	4:j:706:HIS:ND1	2.23	0.52
7:n:257:ASP:O	7:n:261:ASN:ND2	2.43	0.52
15:C:742:VAL:HA	15:C:745:GLN:HG2	1.92	0.52
19:G:460:PHE:HE1	19:G:498:SER:HB3	1.74	0.52
14:I:277:ARG:NH1	14:I:281:GLU:OE2	2.43	0.52
14:I:1209:LEU:CD1	14:I:1231:LYS:HB3	2.40	0.52
14:I:1209:LEU:CB	14:I:1232:ALA:HB2	2.40	0.52
14:I:1689:TYR:O	14:I:1690:GLU:C	2.52	0.52
18:f:290:VAL:HB	18:f:319:LEU:HA	1.92	0.52
1:A:375:LEU:HD22	1:A:408:LEU:HD13	1.91	0.52
4:J:408:ARG:HH22	14:i:484:ALA:HB2	1.74	0.52
4:J:421:MET:HE2	4:J:432:LEU:HD13	1.92	0.52
4:J:659:GLU:O	14:I:660:LYS:NZ	2.43	0.52
7:N:143:ILE:HD13	17:E:590:GLN:HG2	1.90	0.52
10:Q:135:ALA:HB2	10:Q:163:PHE:HE1	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:T:10:VAL:HG21	13:T:22:CYS:SG	2.49	0.52
4:j:68:LYS:NZ	4:j:373:ASP:OD2	2.43	0.52
12:s:216:LYS:HA	12:s:219:GLN:HB3	1.91	0.52
15:C:250:ARG:HH22	15:C:309:GLN:CD	2.17	0.52
15:C:329:LYS:O	15:C:330:ASP:HB2	2.10	0.52
15:C:737:ASP:OD1	15:C:737:ASP:N	2.43	0.52
16:D:969:LYS:NZ	18:F:589:ASP:OD2	2.38	0.52
17:E:77:LEU:HB3	17:E:121:LYS:HE3	1.92	0.52
18:F:683:LEU:O	18:F:687:CYS:HB2	2.10	0.52
20:m:13:LEU:HD22	20:m:101:LEU:HD23	1.92	0.52
20:m:43:LYS:HB3	20:m:47:ARG:HH12	1.74	0.52
1:A:59:ASN:HB3	1:A:64:ALA:HB3	1.91	0.51
2:B:41:TYR:HA	2:B:47:PRO:HA	1.91	0.51
2:B:108:SER:OG	2:B:154:THR:OG1	2.27	0.51
3:h:191:PRO:HA	3:h:208:ALA:HA	1.92	0.51
14:i:1383:LEU:HB3	14:i:1386:LYS:HZ3	1.75	0.51
4:j:16:LEU:HD21	7:n:10:THR:HG23	1.92	0.51
4:j:317:ILE:HG13	4:j:340:VAL:HG21	1.91	0.51
15:C:433:LEU:HD12	15:C:437:ALA:HB3	1.92	0.51
18:F:448:LEU:HD21	20:M:447:LEU:HD22	1.92	0.51
18:F:565:GLU:HA	18:F:581:LEU:HD11	1.92	0.51
20:M:43:LYS:HD2	20:M:45:PRO:HB2	1.91	0.51
1:A:166:LEU:O	1:A:173:VAL:HA	2.10	0.51
1:A:197:CYS:N	1:A:215:SER:O	2.42	0.51
1:A:322:ILE:HG22	1:A:325:ASP:H	1.74	0.51
1:A:1045:ASP:OD1	1:A:1060:TYR:OH	2.28	0.51
10:Q:102:VAL:HA	10:Q:147:VAL:HB	1.93	0.51
11:R:60:ILE:HG12	11:R:131:VAL:HG22	1.92	0.51
12:S:216:LYS:HG3	12:S:217:LYS:HG3	1.92	0.51
3:h:393:ILE:HD12	3:h:410:ALA:HB1	1.93	0.51
14:i:341:VAL:HG11	14:i:365:ILE:HD11	1.92	0.51
14:i:502:THR:HA	14:i:518:LEU:HB2	1.92	0.51
14:i:799:ASP:N	14:i:799:ASP:OD1	2.41	0.51
14:i:1155:ALA:O	14:i:1159:GLU:N	2.41	0.51
14:i:1348:VAL:O	14:i:1352:LEU:N	2.36	0.51
4:j:129:LYS:HA	4:j:140:THR:HA	1.91	0.51
7:n:126:ASN:HD22	20:m:306:TRP:HB2	1.75	0.51
15:C:407:GLU:O	16:D:912:HIS:NE2	2.43	0.51
16:D:568:ALA:HA	16:D:577:GLY:H	1.74	0.51
16:D:604:GLU:O	16:D:607:ARG:HB3	2.11	0.51
16:D:1077:TYR:O	17:E:1152:ARG:NH1	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:F:650:ALA:HB2	18:F:665:LYS:HB2	1.93	0.51
14:I:415:HIS:NE2	14:I:436:THR:O	2.44	0.51
14:I:1195:ARG:O	14:I:1199:ARG:HB2	2.10	0.51
19:g:359:ARG:HG2	19:g:420:ALA:HA	1.91	0.51
1:A:1057:VAL:HG11	1:A:1084:LEU:HB3	1.93	0.51
1:A:1069:LEU:HD13	1:A:1092:VAL:HG22	1.91	0.51
2:B:102:HIS:ND1	2:B:122:ASP:OD2	2.43	0.51
2:B:1069:ASP:H	2:B:1072:LEU:HB3	1.74	0.51
2:B:1193:TYR:HD2	2:B:1218:PHE:HA	1.75	0.51
3:H:327:GLY:O	3:H:328:GLN:C	2.54	0.51
4:J:212:VAL:HG21	4:J:257:GLY:HA3	1.91	0.51
8:O:372:LEU:HG	8:O:376:ILE:HD11	1.92	0.51
14:i:164:ALA:O	14:i:211:TRP:HB2	2.10	0.51
4:j:194:TRP:HD1	4:j:201:ILE:HB	1.73	0.51
4:j:209:LYS:HE2	4:j:223:SER:HB3	1.91	0.51
4:j:554:LYS:C	4:j:556:ALA:H	2.19	0.51
7:n:3:PHE:HA	7:n:6:LEU:HD12	1.91	0.51
15:C:695:GLU:H	15:C:695:GLU:CD	2.18	0.51
18:F:287:MET:H	19:g:425:TYR:HE1	1.58	0.51
14:I:577:HIS:HB3	14:I:619:LEU:HD11	1.91	0.51
14:I:1735:ASN:HA	14:I:1738:VAL:HG22	1.91	0.51
19:g:81:GLU:HA	19:g:84:LYS:HB2	1.90	0.51
2:B:386:LYS:N	2:B:394:MET:SD	2.84	0.51
2:B:737:PHE:HB3	2:B:764:VAL:HG22	1.92	0.51
4:J:122:ALA:HB2	4:J:151:ILE:HD11	1.91	0.51
4:J:353:THR:HG23	4:J:354:GLN:HG2	1.91	0.51
4:J:370:ASP:H	6:l:99:GLU:HG3	1.74	0.51
11:R:42:MET:O	11:R:43:PHE:C	2.53	0.51
13:T:118:MET:HA	13:T:145:SER:O	2.10	0.51
14:i:815:LEU:O	14:i:818:ARG:NH2	2.43	0.51
4:j:572:ASP:O	6:l:85:ARG:NH2	2.42	0.51
4:j:682:ARG:HA	4:j:685:LYS:HB2	1.91	0.51
15:C:332:VAL:HG22	15:C:346:LEU:HD23	1.92	0.51
15:C:1150:VAL:O	15:C:1153:GLN:NE2	2.44	0.51
16:D:136:VAL:HG22	16:D:142:VAL:HG22	1.91	0.51
16:D:608:MET:HB2	16:D:620:VAL:HG12	1.93	0.51
17:E:919:ARG:HB2	17:E:929:GLN:HB3	1.93	0.51
14:I:1014:LYS:HG2	14:I:1041:ILE:HA	1.91	0.51
14:I:1273:GLY:O	14:I:1274:GLN:C	2.53	0.51
19:g:24:ILE:HA	19:g:28:LYS:HB2	1.93	0.51
1:A:1123:LEU:HD23	1:A:1160:LEU:HD13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:19:TRP:O	2:B:21:LYS:NZ	2.43	0.51
2:B:311:LEU:HD22	2:B:323:MET:HE3	1.93	0.51
2:B:325:LYS:HE3	2:B:621:PHE:H	1.75	0.51
2:B:339:PHE:O	2:B:343:TRP:NE1	2.44	0.51
4:J:493:MET:N	4:J:493:MET:SD	2.84	0.51
4:J:538:ASP:N	4:J:538:ASP:OD1	2.44	0.51
12:S:280:ARG:HH22	12:S:281:LEU:HD12	1.75	0.51
3:h:221:LEU:HD11	3:h:244:PHE:HD2	1.76	0.51
14:i:880:HIS:O	14:i:884:SER:OG	2.29	0.51
14:i:1274:GLN:HG2	14:i:1278:GLY:HA2	1.93	0.51
4:j:197:ILE:HD12	4:j:235:TRP:HB3	1.91	0.51
4:j:248:ASN:O	6:l:74:ASN:ND2	2.43	0.51
15:C:774:LEU:HD23	15:C:777:MET:HE1	1.93	0.51
15:C:1140:ASN:C	15:C:1142:VAL:H	2.17	0.51
16:D:1:MET:HG2	16:D:300:LEU:HB3	1.92	0.51
16:D:973:ARG:NH2	17:E:716:GLU:OE1	2.43	0.51
17:E:358:GLN:OE1	17:E:361:GLN:NE2	2.42	0.51
17:E:663:LEU:HD11	17:E:688:ALA:HB2	1.91	0.51
20:m:467:GLU:O	20:m:468:GLU:C	2.54	0.51
1:A:271:SER:HB2	1:A:276:GLU:HG3	1.93	0.51
2:B:668:ILE:HD13	2:B:678:ASN:HB3	1.91	0.51
3:H:304:LEU:HD23	18:F:264:ARG:HH11	1.72	0.51
4:J:108:ILE:HG13	4:J:147:PRO:HB3	1.91	0.51
4:J:523:ARG:HB2	4:J:548:SER:HA	1.92	0.51
6:L:117:GLU:HA	6:L:120:LEU:HG	1.93	0.51
14:i:84:GLN:HA	14:i:117:THR:HG23	1.93	0.51
14:i:293:ALA:HB3	14:i:311:MET:SD	2.50	0.51
4:j:254:ASP:H	4:j:257:GLY:HA2	1.75	0.51
5:k:460:LEU:HG	6:l:83:ARG:HG3	1.92	0.51
6:l:52:VAL:HG22	7:n:116:ASP:HA	1.93	0.51
15:C:663:MET:HE2	15:C:696:LEU:HA	1.92	0.51
15:C:701:ALA:HB2	15:C:716:MET:CG	2.40	0.51
15:C:706:GLU:HG3	16:D:708:LYS:HB2	1.93	0.51
16:D:759:ASP:HA	16:D:762:ILE:HD12	1.92	0.51
14:I:645:LEU:O	14:I:649:GLU:HB2	2.11	0.51
14:I:1210:VAL:HG21	14:I:1234:ARG:HD2	1.91	0.51
20:m:36:GLU:HA	20:m:40:CYS:HB2	1.93	0.51
1:A:946:VAL:HG22	1:A:959:ALA:HA	1.91	0.51
2:B:274:VAL:HG12	2:B:290:LEU:H	1.74	0.51
2:B:941:GLN:HE21	15:C:918:ARG:HB2	1.75	0.51
7:N:168:VAL:O	7:N:171:HIS:ND1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:N:300:ARG:HB2	18:f:164:ARG:HH22	1.76	0.51
8:O:562:ARG:HA	8:O:565:VAL:HB	1.93	0.51
4:j:516:LEU:HB2	4:j:527:TRP:HB2	1.93	0.51
4:j:579:ALA:HB1	6:l:104:LEU:HD13	1.91	0.51
12:s:206:ARG:HH11	19:g:83:TYR:HB2	1.75	0.51
15:C:270:PRO:HA	15:C:277:VAL:HA	1.91	0.51
17:E:103:ARG:NH1	17:E:105:ALA:HB3	2.25	0.51
14:I:16:TYR:CZ	14:I:311:MET:HB3	2.46	0.51
14:I:82:ILE:O	14:I:89:VAL:HA	2.10	0.51
14:I:861:GLU:HA	14:I:864:TRP:CD1	2.45	0.51
14:I:1624:SER:OG	14:I:1628:VAL:HA	2.11	0.51
20:M:357:GLU:HA	20:M:360:MET:HE2	1.92	0.51
18:f:217:PHE:CD1	18:f:219:GLN:HG3	2.46	0.51
1:A:333:GLN:HG3	1:A:353:ASN:HD21	1.76	0.51
1:A:504:SER:OG	1:A:508:THR:N	2.44	0.51
1:A:1120:ARG:HA	1:A:1123:LEU:HD12	1.92	0.51
3:H:42:LYS:HZ2	7:n:280:MET:HE3	1.75	0.51
4:J:1:MET:H3	4:J:261:SER:HB3	1.76	0.51
7:N:191:ASN:O	7:N:195:LEU:HG	2.11	0.51
7:N:205:ASN:HB2	20:M:384:VAL:HG21	1.92	0.51
9:P:513:ARG:HE	15:C:1007:LEU:HD11	1.76	0.51
3:h:62:GLY:HA2	3:h:89:LEU:HB2	1.93	0.51
14:i:112:GLN:NE2	14:i:132:GLY:O	2.44	0.51
7:n:67:GLN:HG3	7:n:83:ILE:HD12	1.93	0.51
15:C:675:ALA:HA	15:C:678:TRP:HE3	1.75	0.51
16:D:725:LEU:O	16:D:734:GLN:NE2	2.44	0.51
17:E:908:LEU:HA	17:E:911:GLN:HB2	1.92	0.51
17:E:941:ALA:HA	17:E:944:SER:HB3	1.92	0.51
18:F:219:GLN:H	19:G:592:MET:HB3	1.76	0.51
18:F:602:HIS:HD2	18:F:638:ILE:HB	1.75	0.51
14:I:1:MET:HG2	14:I:322:VAL:HG22	1.93	0.51
14:I:503:HIS:HB3	14:I:515:LEU:HD11	1.92	0.51
14:I:1564:LEU:HB3	14:I:1567:ILE:HB	1.93	0.51
1:A:377:LEU:HA	1:A:383:MET:HB2	1.93	0.51
1:A:862:LYS:HD2	1:A:881:TYR:HE1	1.76	0.51
3:H:3:GLU:HG2	3:H:249:LYS:HD2	1.93	0.51
3:H:116:ASP:OD1	3:H:182:THR:OG1	2.29	0.51
6:L:32:ASP:OD1	20:M:327:SER:OG	2.28	0.51
11:R:73:GLU:HG2	11:R:85:LYS:HD3	1.93	0.51
13:T:180:GLU:HA	13:T:183:GLU:HG3	1.93	0.51
3:h:362:LEU:HB3	19:g:21:TYR:CD1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1023:ILE:HA	14:i:1026:VAL:HB	1.91	0.51
14:i:1272:SER:HA	14:i:1297:ARG:HG3	1.93	0.51
4:j:240:GLU:OE1	4:j:569:ARG:NH1	2.44	0.51
7:n:206:GLU:OE1	20:m:380:LYS:NZ	2.43	0.51
16:D:165:GLU:HB3	16:D:174:LEU:HB2	1.93	0.51
17:E:632:PRO:HB3	17:E:638:LEU:HA	1.93	0.51
17:E:1028:LEU:HA	17:E:1031:ARG:HE	1.75	0.51
18:F:237:TYR:HB3	18:F:241:ILE:HD13	1.93	0.51
18:F:474:ARG:NH2	18:F:508:GLU:OE2	2.44	0.51
19:G:85:LEU:HG	19:G:107:VAL:HG11	1.92	0.51
14:I:14:ASP:N	14:I:14:ASP:OD1	2.44	0.51
19:g:127:ASP:O	19:g:131:CYS:N	2.38	0.51
19:g:538:ASN:ND2	19:g:560:LYS:HG3	2.25	0.51
1:A:21:TRP:NE1	1:A:348:THR:OG1	2.36	0.51
2:B:33:LEU:HD12	2:B:55:ASN:HD21	1.76	0.51
2:B:100:LYS:O	2:B:103:ARG:NH1	2.43	0.51
2:B:842:ARG:O	2:B:845:LEU:HB3	2.10	0.51
2:B:989:GLY:O	2:B:993:ALA:CB	2.58	0.51
3:h:306:LYS:HA	18:f:222:TRP:HE1	1.75	0.51
14:i:429:ASP:OD1	14:i:429:ASP:N	2.43	0.51
14:i:463:TYR:OH	14:i:473:GLN:OE1	2.28	0.51
4:j:442:ARG:NH1	4:j:452:VAL:O	2.43	0.51
15:C:1138:TRP:HB2	15:C:1141:PRO:HA	1.93	0.51
16:D:563:ASP:HB3	16:D:565:THR:H	1.76	0.51
16:D:724:HIS:HA	16:D:727:LYS:HE3	1.93	0.51
17:E:607:VAL:HA	17:E:610:LYS:HD2	1.91	0.51
19:G:438:PHE:O	19:G:442:ALA:CB	2.59	0.51
18:f:674:PRO:HB2	18:f:680:LEU:HD11	1.93	0.51
19:g:543:THR:OG1	19:g:579:ARG:NH1	2.44	0.51
19:g:559:ILE:HD13	19:g:606:PHE:HB2	1.93	0.51
1:A:335:ILE:HA	1:A:351:THR:HA	1.92	0.50
1:A:385:LEU:HD13	1:A:408:LEU:HD11	1.92	0.50
2:B:655:GLU:OE1	2:B:706:SER:N	2.44	0.50
2:B:718:ARG:O	2:B:721:LEU:HB2	2.11	0.50
3:H:30:LEU:HD22	3:H:227:PHE:HB2	1.93	0.50
4:J:350:ALA:HB1	4:J:375:VAL:HG21	1.92	0.50
7:N:9:PHE:HA	7:N:12:VAL:HG12	1.92	0.50
7:N:91:GLY:HA2	7:N:94:VAL:HG23	1.93	0.50
3:h:296:TRP:HB2	18:f:271:VAL:HG21	1.93	0.50
14:i:897:CYS:SG	14:i:899:GLN:HG2	2.51	0.50
14:i:1159:GLU:HG3	14:i:1183:MET:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1689:TYR:HB3	14:i:1692:ASN:HB2	1.92	0.50
4:j:521:ASP:HB3	4:j:523:ARG:NE	2.26	0.50
15:C:460:CYS:HB3	15:C:473:VAL:HB	1.92	0.50
17:E:836:GLN:NE2	17:E:862:LYS:O	2.43	0.50
14:I:203:SER:OG	14:I:221:ASP:OD2	2.27	0.50
14:I:1743:THR:OG1	14:I:1750:GLN:NE2	2.41	0.50
19:g:247:ALA:HB3	19:g:281:ASN:HB3	1.93	0.50
19:g:253:MET:HA	19:g:450:VAL:HG23	1.93	0.50
19:g:435:GLU:O	19:g:439:ARG:N	2.38	0.50
1:A:728:ASP:HB3	1:A:731:LEU:CB	2.40	0.50
2:B:642:ILE:HD11	2:B:675:LEU:HD11	1.92	0.50
4:J:387:LEU:HB3	4:J:395:GLN:HB2	1.93	0.50
10:Q:59:PRO:HA	10:Q:70:GLU:HA	1.92	0.50
11:R:30:ASP:OD1	11:R:30:ASP:N	2.43	0.50
13:T:85:LEU:HD11	13:T:120:MET:HE2	1.92	0.50
3:h:68:PHE:HE1	3:h:104:TYR:HB3	1.76	0.50
3:h:90:MET:HG2	3:h:220:VAL:HB	1.93	0.50
14:i:623:GLU:HG3	14:i:632:TRP:HE1	1.75	0.50
14:i:778:LEU:HD13	14:i:806:ILE:HG12	1.93	0.50
4:j:111:ARG:HG2	4:j:152:VAL:HA	1.92	0.50
4:j:489:LEU:HG	4:j:500:LEU:HB2	1.93	0.50
12:s:241:LYS:HZ2	12:s:297:SER:HB2	1.76	0.50
17:E:60:SER:HA	17:E:72:VAL:HG13	1.94	0.50
17:E:210:LEU:HD11	17:E:230:MET:HB3	1.94	0.50
17:E:282:LEU:HD22	17:E:317:ILE:HD12	1.93	0.50
17:E:332:MET:HG3	17:E:335:TYR:H	1.76	0.50
14:I:300:LYS:HZ1	14:I:351:ARG:HH21	1.58	0.50
14:I:571:VAL:HA	14:I:585:VAL:HA	1.91	0.50
14:I:1692:ASN:HB3	14:I:1695:CYS:HA	1.92	0.50
1:A:48:ASP:OD2	1:A:92:TRP:NE1	2.44	0.50
1:A:769:HIS:C	1:A:771:THR:H	2.18	0.50
1:A:1337:ASP:HB3	1:A:1340:HIS:CD2	2.47	0.50
2:B:989:GLY:O	2:B:993:ALA:HB3	2.11	0.50
3:H:244:PHE:HA	3:H:247:PHE:HB3	1.93	0.50
3:H:308:ASP:OD1	18:F:358:ARG:NH2	2.45	0.50
4:J:572:ASP:OD2	6:L:92:ARG:NH1	2.44	0.50
4:J:625:LEU:HB2	4:J:764:TYR:HE1	1.76	0.50
4:J:639:ASP:O	4:J:643:PHE:HB2	2.11	0.50
7:N:304:GLY:HA3	18:f:165:LYS:HG2	1.92	0.50
9:P:641:LEU:O	9:P:645:ARG:N	2.40	0.50
11:R:116:LEU:HD21	11:R:126:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:T:87:VAL:HG13	13:T:122:ILE:HD12	1.94	0.50
3:h:283:LYS:HD2	18:f:508:GLU:HA	1.93	0.50
14:i:936:GLU:HA	14:i:939:TYR:HB2	1.93	0.50
4:j:277:THR:OG1	4:j:280:SER:N	2.44	0.50
4:j:641:THR:HG21	4:j:645:ARG:HB2	1.93	0.50
7:n:79:MET:HE2	7:n:103:LEU:HD23	1.93	0.50
15:C:1062:ARG:NH1	15:C:1066:GLU:OE2	2.44	0.50
16:D:533:VAL:HB	16:D:575:THR:HG23	1.94	0.50
16:D:681:VAL:HG23	16:D:690:TRP:HE3	1.76	0.50
16:D:799:TYR:HD2	16:D:807:LYS:HG2	1.76	0.50
19:G:214:LEU:HD21	19:G:227:SER:HA	1.94	0.50
14:I:308:VAL:HB	14:I:318:TYR:HE2	1.76	0.50
14:I:730:ARG:NH1	14:I:755:GLY:O	2.45	0.50
14:I:1014:LYS:HG2	14:I:1041:ILE:HG12	1.93	0.50
14:I:1174:ALA:O	14:I:1176:LYS:NZ	2.43	0.50
14:I:1551:HIS:NE2	14:I:1745:PRO:HD2	2.26	0.50
18:f:395:ARG:HG2	18:f:400:THR:HA	1.94	0.50
19:g:115:THR:HA	19:g:118:LEU:HD12	1.92	0.50
19:g:536:ILE:O	19:g:576:TYR:OH	2.29	0.50
1:A:839:THR:HG21	1:A:851:LEU:HD12	1.94	0.50
1:A:861:PHE:HA	1:A:864:CYS:HB2	1.93	0.50
2:B:152:ARG:HH12	2:B:202:GLY:HA2	1.75	0.50
2:B:347:PRO:HA	2:B:680:LYS:HE3	1.92	0.50
2:B:371:CYS:SG	2:B:372:ASN:N	2.81	0.50
2:B:652:LEU:HD22	2:B:761:ARG:HD2	1.93	0.50
3:H:103:ASN:O	3:H:107:GLU:N	2.43	0.50
4:J:308:GLN:HB2	4:J:320:ASN:HB2	1.92	0.50
9:P:488:SER:HA	9:P:491:VAL:HG12	1.93	0.50
3:h:414:LEU:HD23	12:s:298:LEU:HD21	1.94	0.50
14:i:322:VAL:O	14:i:324:ARG:NH2	2.45	0.50
14:i:851:ARG:HD2	14:i:855:ALA:HA	1.93	0.50
14:i:1010:ILE:HA	14:i:1022:MET:HB2	1.93	0.50
4:j:26:ASN:HB2	4:j:374:THR:HG21	1.93	0.50
16:D:133:ILE:HG21	16:D:149:GLY:HA2	1.94	0.50
17:E:484:PRO:HA	17:E:487:ILE:HB	1.94	0.50
17:E:1163:VAL:O	17:E:1167:TYR:N	2.41	0.50
17:E:1321:TYR:CG	17:E:1355:PRO:HD3	2.46	0.50
14:I:31:LEU:O	14:I:42:LEU:HA	2.11	0.50
14:I:716:ILE:HG13	14:I:743:LEU:HD13	1.94	0.50
14:I:945:ALA:O	14:I:949:VAL:HG23	2.12	0.50
18:f:575:PRO:HG3	18:f:605:TYR:HD2	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:338:VAL:HG23	1:A:349:VAL:HG22	1.92	0.50
1:A:1147:LYS:NZ	1:A:1311:LYS:O	2.45	0.50
3:H:415:SER:HA	3:H:418:PHE:HB3	1.93	0.50
4:J:7:GLN:NE2	4:J:268:THR:O	2.43	0.50
6:L:50:LYS:O	6:L:53:SER:OG	2.29	0.50
6:L:123:GLN:HA	14:I:812:LYS:HD2	1.93	0.50
7:N:18:TYR:O	7:N:19:PRO:C	2.54	0.50
11:R:76:ASP:OD1	11:R:76:ASP:N	2.44	0.50
12:S:294:PRO:HB2	12:S:298:LEU:HB2	1.92	0.50
3:h:247:PHE:HB2	3:h:253:LYS:HE3	1.94	0.50
3:h:358:PRO:HD3	19:g:235:LYS:HB2	1.94	0.50
4:j:521:ASP:HB3	4:j:523:ARG:HE	1.77	0.50
7:n:239:ASP:HB3	7:n:243:ARG:HE	1.76	0.50
16:D:38:LEU:HD21	16:D:80:VAL:HG22	1.93	0.50
16:D:735:ARG:HH11	16:D:738:VAL:HG11	1.76	0.50
17:E:840:GLN:O	17:E:844:GLY:N	2.43	0.50
17:E:892:LYS:HE2	17:E:897:MET:HG2	1.93	0.50
18:F:435:PRO:HA	18:F:438:LYS:HB2	1.94	0.50
14:I:1525:ASN:O	14:I:1529:SER:HB3	2.11	0.50
20:M:11:ARG:NH2	20:M:133:GLY:O	2.45	0.50
18:f:277:PRO:HB3	18:f:299:LEU:HD22	1.94	0.50
18:f:314:ASN:HA	18:f:317:ILE:HB	1.94	0.50
19:g:214:LEU:HG	19:g:228:VAL:HB	1.92	0.50
1:A:1187:ARG:NH2	1:A:1261:LEU:O	2.41	0.50
2:B:1281:VAL:CG1	2:B:1321:ILE:HG12	2.41	0.50
2:B:1324:GLY:HA2	2:B:1350:MET:SD	2.51	0.50
3:H:151:LEU:HD22	3:H:160:ARG:HB3	1.92	0.50
4:J:88:LYS:HE2	4:J:90:LEU:HD11	1.93	0.50
13:T:40:THR:HG23	13:T:44:ARG:HG3	1.93	0.50
14:i:1375:ILE:HG23	14:i:1387:ALA:HB1	1.94	0.50
5:k:422:LEU:HD22	6:l:47:LEU:HD11	1.93	0.50
7:n:26:ASN:ND2	7:n:38:CYS:SG	2.81	0.50
7:n:288:LYS:HB3	18:f:272:ARG:HH22	1.76	0.50
15:C:1137:THR:HG22	15:C:1145:LYS:HD2	1.94	0.50
16:D:184:VAL:HG11	16:D:231:ILE:HG21	1.93	0.50
16:D:391:VAL:HA	16:D:405:ILE:O	2.12	0.50
17:E:155:GLN:NE2	17:E:165:ASP:O	2.45	0.50
17:E:1281:GLU:HB2	17:E:1318:ALA:HB1	1.94	0.50
19:G:226:ARG:NH2	19:G:273:GLU:OE2	2.45	0.50
14:I:31:LEU:HD23	14:I:43:PHE:HB2	1.94	0.50
19:g:312:PHE:HD2	19:g:340:TYR:CD2	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:g:328:ASP:OD1	19:g:328:ASP:N	2.44	0.50
19:g:490:ILE:H	19:g:490:ILE:HD12	1.76	0.50
19:g:562:LEU:HG	19:g:606:PHE:HE1	1.76	0.50
19:g:595:LEU:HG	19:g:646:ARG:HH22	1.75	0.50
2:B:274:VAL:HA	2:B:290:LEU:HG	1.94	0.50
2:B:406:LEU:HD12	2:B:699:VAL:HB	1.93	0.50
3:H:357:PRO:HG2	19:G:55:TYR:HA	1.94	0.50
8:O:577:ALA:O	8:O:581:ASP:N	2.44	0.50
14:i:36:THR:HA	14:i:64:ASN:HB2	1.94	0.50
14:i:1171:PHE:HA	14:i:1174:ALA:HB3	1.94	0.50
4:j:81:ALA:HA	4:j:87:VAL:HA	1.94	0.50
4:j:323:LEU:O	5:k:480:GLN:NE2	2.42	0.50
7:n:203:GLU:HG2	20:m:380:LYS:HE2	1.94	0.50
15:C:498:SER:OG	15:C:535:VAL:O	2.28	0.50
15:C:1138:TRP:CG	15:C:1143:ILE:HB	2.47	0.50
17:E:526:GLN:HG3	17:E:870:GLY:HA3	1.94	0.50
17:E:902:GLN:OE1	17:E:952:ARG:NH2	2.45	0.50
17:E:982:GLY:HA2	17:E:1226:GLN:HG3	1.93	0.50
18:F:507:VAL:O	18:F:511:TYR:HB2	2.12	0.50
19:G:353:LEU:HA	19:G:356:ALA:HB3	1.93	0.50
14:I:10:LEU:HB3	14:I:315:VAL:HB	1.93	0.50
1:A:169:GLN:HA	1:A:192:VAL:HG13	1.94	0.50
1:A:341:THR:HG1	1:A:345:GLN:H	1.60	0.50
1:A:557:VAL:HG21	15:C:988:VAL:HG22	1.93	0.50
1:A:645:HIS:HA	1:A:669:LEU:HD21	1.94	0.50
4:J:515:MET:HB3	4:J:561:PHE:HE2	1.77	0.50
3:h:192:VAL:HB	3:h:209:VAL:HG23	1.94	0.50
3:h:221:LEU:HD21	3:h:244:PHE:CE2	2.46	0.50
14:i:1014:LYS:HG3	14:i:1019:TYR:HE1	1.76	0.50
7:n:248:LEU:O	7:n:252:TYR:N	2.37	0.50
15:C:336:ALA:O	15:C:342:LEU:HA	2.12	0.50
15:C:810:VAL:O	15:C:814:TYR:HB3	2.12	0.50
16:D:3:ILE:HG22	16:D:301:ARG:HG2	1.93	0.50
16:D:227:PRO:HA	16:D:242:ARG:HA	1.92	0.50
16:D:661:SER:O	16:D:689:LEU:HD13	2.12	0.50
17:E:702:THR:HB	17:E:725:ILE:HG22	1.92	0.50
17:E:1331:VAL:HG12	17:E:1336:PRO:HG3	1.94	0.50
14:I:77:SER:O	14:I:77:SER:OG	2.30	0.50
14:I:1190:TRP:HB3	14:I:1228:LEU:HD21	1.93	0.50
18:f:676:ASN:O	18:f:679:CYS:N	2.39	0.50
19:g:373:LEU:O	19:g:377:HIS:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:LEU:HD22	1:A:17:VAL:HG13	1.94	0.50
4:J:141:LEU:HD21	4:J:160:LEU:HD13	1.94	0.50
4:J:342:LEU:HD13	4:J:347:LEU:HB2	1.93	0.50
4:J:570:ARG:HG2	4:J:573:GLY:H	1.77	0.50
3:h:60:VAL:HG12	3:h:87:LEU:HD22	1.93	0.50
3:h:106:LEU:HD13	3:h:111:MET:HE3	1.94	0.50
3:h:141:ARG:HE	3:h:259:ILE:HG13	1.77	0.50
14:i:133:LEU:HG	14:i:135:ASP:H	1.77	0.50
14:i:650:ARG:NH1	14:i:654:ALA:HB2	2.27	0.50
4:j:307:MET:O	5:k:479:LYS:NZ	2.45	0.50
7:n:226:ARG:O	7:n:230:LEU:HG	2.12	0.50
16:D:123:ASP:HB2	16:D:136:VAL:CB	2.39	0.50
16:D:659:THR:H	16:D:688:ARG:NH1	2.10	0.50
16:D:1063:ASP:C	16:D:1065:VAL:N	2.68	0.50
14:I:676:LYS:NZ	14:I:680:GLY:O	2.43	0.50
14:I:1577:ARG:HH22	14:I:1709:GLY:HA3	1.77	0.50
14:I:1743:THR:HG23	14:I:1745:PRO:HD3	1.93	0.50
1:A:1173:VAL:HG22	1:A:1188:MET:SD	2.52	0.49
1:A:1351:ILE:HA	1:A:1354:GLN:HB2	1.93	0.49
2:B:243:LYS:NZ	2:B:244:PHE:O	2.43	0.49
2:B:837:ALA:HB1	2:B:845:LEU:HA	1.93	0.49
3:H:311:LEU:HD12	19:G:590:LYS:HB2	1.94	0.49
4:J:383:ARG:HG2	4:J:426:ASN:ND2	2.26	0.49
4:J:752:ARG:HH22	14:I:666:LYS:HE3	1.76	0.49
7:N:32:PHE:O	7:N:36:ALA:HB2	2.12	0.49
8:O:618:TYR:HB2	8:O:621:LEU:HB2	1.94	0.49
3:h:95:GLU:HB2	3:h:101:ASN:HA	1.94	0.49
3:h:120:ARG:HH21	7:n:260:ARG:HG3	1.77	0.49
14:i:1453:VAL:HA	14:i:1456:ASN:HB2	1.94	0.49
14:i:1484:THR:HG22	14:i:1486:GLN:H	1.77	0.49
4:j:424:LEU:CD1	4:j:429:ILE:HG12	2.42	0.49
4:j:657:ASN:HB2	4:j:673:ILE:HG21	1.94	0.49
15:C:100:ASP:HB2	15:C:118:THR:HB	1.93	0.49
15:C:1012:ARG:HB2	15:C:1151:MET:HE1	1.94	0.49
17:E:308:ALA:HA	17:E:314:LEU:HG	1.94	0.49
17:E:385:GLU:OE2	17:E:389:GLN:NE2	2.44	0.49
18:F:308:ASP:C	18:F:310:GLU:N	2.70	0.49
19:G:629:ARG:NH1	19:G:633:SER:OG	2.44	0.49
14:I:457:GLU:HG2	14:I:476:MET:HE1	1.92	0.49
18:f:154:GLU:HG2	18:f:157:MET:HE2	1.93	0.49
19:g:73:LEU:HA	19:g:77:TYR:HD2	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:g:230:ASN:OD1	19:g:239:LEU:N	2.41	0.49
19:g:439:ARG:HH22	19:g:467:LYS:HE2	1.76	0.49
1:A:273:HIS:N	1:A:276:GLU:O	2.45	0.49
1:A:511:TYR:HD2	15:C:993:VAL:HG11	1.77	0.49
1:A:1269:PRO:HG2	1:A:1289:LEU:HD22	1.94	0.49
2:B:387:PHE:HB2	2:B:394:MET:HE1	1.94	0.49
2:B:912:LEU:O	2:B:917:GLU:N	2.46	0.49
3:H:331:LEU:HD13	19:G:461:MET:HG3	1.94	0.49
4:J:421:MET:HA	4:J:464:GLU:HA	1.93	0.49
4:J:713:TYR:O	14:I:662:ARG:NH2	2.46	0.49
8:O:477:GLN:O	8:O:480:ASN:N	2.45	0.49
9:P:417:LYS:HD3	13:T:29:PRO:HG2	1.94	0.49
3:h:309:THR:HG22	19:g:641:MET:HE2	1.94	0.49
14:i:499:GLN:NE2	14:i:608:GLU:OE1	2.45	0.49
14:i:1102:LEU:HD23	14:i:1134:GLN:HG2	1.93	0.49
14:i:1123:ILE:HA	14:i:1126:ALA:HB3	1.94	0.49
4:j:658:ALA:CB	4:j:673:ILE:HD11	2.40	0.49
4:j:761:ALA:O	4:j:763:ARG:NH1	2.45	0.49
18:F:503:ASP:HB3	18:F:506:CYS:HB2	1.94	0.49
14:I:69:ARG:NH2	20:M:21:VAL:HG22	2.26	0.49
14:I:1332:LEU:HG	14:I:1336:TYR:HB3	1.94	0.49
20:M:393:ARG:NH2	20:M:400:GLU:OE2	2.45	0.49
18:f:130:GLU:HG3	18:f:134:HIS:CE1	2.47	0.49
19:g:353:LEU:O	19:g:357:ILE:HD12	2.12	0.49
1:A:447:LYS:HG3	1:A:494:ALA:HA	1.95	0.49
1:A:662:ARG:NH2	1:A:677:GLU:OE1	2.44	0.49
1:A:1041:ASP:N	1:A:1041:ASP:OD1	2.45	0.49
1:A:1102:ASP:OD1	1:A:1102:ASP:N	2.44	0.49
2:B:1241:ASP:HB3	2:B:1322:ARG:HH11	1.77	0.49
4:J:632:PHE:CB	4:J:641:THR:HG23	2.39	0.49
8:O:469:ASP:HB3	9:P:473:LYS:HD2	1.94	0.49
9:P:522:PHE:HA	9:P:525:LYS:HB2	1.94	0.49
9:P:612:ARG:O	9:P:616:ILE:HG13	2.12	0.49
11:R:43:PHE:O	11:R:45:GLN:N	2.45	0.49
13:T:9:ALA:HA	13:T:62:TRP:HB2	1.93	0.49
3:h:290:ASP:OD1	20:m:458:GLN:NE2	2.46	0.49
3:h:397:GLY:HA3	3:h:413:VAL:HG21	1.94	0.49
14:i:659:ALA:HA	4:j:692:ASN:H	1.76	0.49
14:i:1073:GLN:HG3	14:i:1074:VAL:HG13	1.94	0.49
14:i:1612:PHE:HD2	14:i:1659:VAL:HG11	1.77	0.49
4:j:644:VAL:HG11	4:j:656:ARG:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:n:12:VAL:HG21	7:n:42:LEU:HB3	1.94	0.49
15:C:414:ILE:HA	15:C:433:LEU:HA	1.93	0.49
16:D:1076:PHE:HB2	16:D:1088:PHE:CE1	2.46	0.49
16:D:1110:MET:HA	17:E:894:LYS:H	1.77	0.49
17:E:1321:TYR:HB3	17:E:1354:LYS:HA	1.93	0.49
18:F:151:SER:OG	18:F:152:ALA:N	2.44	0.49
19:G:352:TYR:HE1	19:G:376:ARG:HD2	1.76	0.49
19:G:551:TYR:HB2	19:G:595:LEU:HD11	1.93	0.49
14:I:640:LEU:HG	14:I:697:LYS:HB2	1.93	0.49
14:I:1236:GLU:HG3	14:I:1259:LEU:HD11	1.94	0.49
14:I:1597:TYR:HB2	14:I:1666:ILE:HD11	1.94	0.49
18:f:420:PHE:CZ	18:f:448:LEU:HB3	2.48	0.49
19:g:246:LYS:HG3	19:g:263:LEU:HD13	1.94	0.49
2:B:754:HIS:HB3	2:B:758:ARG:HH21	1.76	0.49
4:J:527:TRP:O	4:J:528:TYR:C	2.55	0.49
5:K:434:GLU:HA	5:K:437:ARG:HE	1.77	0.49
7:N:163:HIS:NE2	20:M:346:GLN:OE1	2.45	0.49
7:N:258:ARG:HH22	18:F:575:PRO:HG3	1.77	0.49
8:O:551:ARG:HG3	9:P:551:VAL:HG23	1.94	0.49
14:i:347:LYS:HG3	14:i:348:THR:HG23	1.94	0.49
14:i:446:ALA:HA	14:i:461:LEU:HA	1.94	0.49
14:i:1097:ALA:HB1	14:i:1113:LEU:HD11	1.95	0.49
14:i:1686:LYS:HD2	14:i:1698:CYS:HB3	1.94	0.49
4:j:598:LYS:HE3	5:k:499:LEU:HB3	1.94	0.49
4:j:708:ASP:HA	4:j:711:LEU:HD12	1.94	0.49
6:l:74:ASN:HA	6:l:77:ALA:HB3	1.94	0.49
15:C:757:CYS:HB3	15:C:773:THR:HG21	1.94	0.49
16:D:1112:ILE:HA	17:E:943:GLN:NE2	2.28	0.49
17:E:541:LEU:HD22	17:E:546:ASN:HD22	1.75	0.49
14:I:1532:GLY:HA2	14:I:1535:LYS:HB2	1.94	0.49
18:f:511:TYR:HA	18:f:536:MET:HE1	1.94	0.49
18:f:520:LEU:HB2	18:f:522:GLU:HG3	1.95	0.49
19:g:118:LEU:HD13	19:g:137:LYS:HG3	1.94	0.49
1:A:270:VAL:HG22	1:A:280:GLU:HA	1.94	0.49
1:A:695:ALA:O	1:A:700:ASP:N	2.41	0.49
1:A:1348:LEU:HD22	1:A:1352:LYS:HD3	1.94	0.49
4:J:219:LEU:HD21	4:J:222:GLN:HB2	1.93	0.49
14:i:93:ARG:NH2	14:i:108:ASN:OD1	2.45	0.49
14:i:327:TYR:N	14:i:331:PHE:O	2.45	0.49
14:i:512:HIS:CE1	14:i:528:ASN:HA	2.48	0.49
4:j:684:ILE:HA	4:j:687:ASN:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:518:VAL:O	16:D:531:GLN:HA	2.12	0.49
17:E:979:LEU:HG	17:E:986:ALA:HB3	1.94	0.49
14:I:21:SER:HB2	14:I:34:VAL:HG12	1.92	0.49
14:I:242:ASN:HB2	14:I:245:VAL:HG12	1.95	0.49
18:f:551:TYR:O	18:f:555:GLY:N	2.40	0.49
18:f:600:GLU:HG3	18:f:603:ARG:HH21	1.78	0.49
19:g:309:PRO:HB3	19:g:344:LEU:HD21	1.94	0.49
19:g:388:ILE:HD11	19:g:407:TYR:HB2	1.94	0.49
19:g:525:GLN:HB2	19:g:533:HIS:CE1	2.47	0.49
20:m:40:CYS:HA	20:m:47:ARG:HH21	1.78	0.49
1:A:114:MET:HG2	1:A:125:VAL:HG22	1.95	0.49
1:A:496:THR:C	1:A:498:THR:H	2.21	0.49
1:A:706:ASN:HB3	2:B:859:GLN:HE21	1.77	0.49
1:A:806:LYS:NZ	1:A:841:GLN:OE1	2.45	0.49
2:B:1236:ALA:O	2:B:1240:VAL:HB	2.12	0.49
8:O:620:GLN:HB2	10:Q:143:GLN:HG3	1.94	0.49
3:h:311:LEU:HD22	19:g:585:ILE:HG23	1.94	0.49
4:j:43:LEU:HG	4:j:336:ARG:HD2	1.93	0.49
16:D:1058:TYR:O	17:E:781:GLN:HG2	2.11	0.49
17:E:1038:ALA:O	17:E:1042:LEU:HB2	2.12	0.49
17:E:1089:PRO:HG3	17:E:1135:PRO:HD2	1.95	0.49
18:F:452:GLU:HG2	20:M:439:ILE:HG23	1.93	0.49
19:G:484:LEU:HB2	19:G:515:VAL:HG12	1.95	0.49
14:I:503:HIS:HA	14:I:517:SER:HA	1.93	0.49
14:I:810:LEU:HD22	14:I:818:ARG:HB3	1.94	0.49
14:I:1631:ASN:HB3	14:I:1634:PHE:HB2	1.94	0.49
18:f:212:VAL:HG11	18:f:224:ARG:HG3	1.95	0.49
18:f:582:GLY:O	18:f:586:ALA:N	2.43	0.49
20:m:11:ARG:NH2	20:m:140:GLU:OE1	2.43	0.49
1:A:55:ALA:HA	1:A:86:ASN:HD21	1.78	0.49
2:B:1321:ILE:HD12	2:B:1326:VAL:HG21	1.95	0.49
3:H:63:GLY:O	3:H:65:LYS:HG3	2.13	0.49
3:H:141:ARG:HD3	3:H:144:ILE:HD12	1.94	0.49
4:J:600:THR:HA	4:J:603:CYS:HB2	1.94	0.49
7:N:226:ARG:HD3	20:M:401:VAL:HG22	1.94	0.49
7:N:285:ARG:HG2	18:F:376:LYS:HE2	1.94	0.49
9:P:598:LYS:HG3	10:Q:81:LEU:HB2	1.93	0.49
11:R:41:GLY:O	11:R:42:MET:C	2.56	0.49
12:S:298:LEU:HD12	12:S:301:LEU:HD23	1.94	0.49
3:h:270:LYS:HB2	18:f:573:ASN:HB2	1.93	0.49
3:h:283:LYS:HG2	20:m:450:SER:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:422:ILE:HG23	14:i:431:LEU:HB2	1.93	0.49
14:i:662:ARG:HD2	14:i:665:HIS:CG	2.48	0.49
14:i:706:LEU:HD13	14:i:718:LEU:HD12	1.95	0.49
14:i:829:SER:N	14:i:852:GLU:O	2.46	0.49
14:i:1411:GLN:NE2	14:i:1412:ASN:OD1	2.46	0.49
14:i:1413:GLN:OE1	14:i:1436:ARG:NH1	2.40	0.49
14:i:1482:GLY:HA2	14:i:1522:ARG:HH12	1.78	0.49
4:j:130:ILE:N	4:j:139:SER:O	2.43	0.49
4:j:759:PRO:HA	4:j:762:LYS:HB2	1.93	0.49
7:n:82:ASN:HB3	7:n:85:ARG:HG3	1.94	0.49
15:C:406:ARG:HH21	15:C:443:VAL:HG22	1.77	0.49
15:C:1044:LEU:HD22	15:C:1155:VAL:HG11	1.95	0.49
16:D:46:THR:O	16:D:318:ASN:ND2	2.45	0.49
16:D:273:ALA:HB2	16:D:290:VAL:HG13	1.95	0.49
17:E:1243:ALA:O	17:E:1265:TYR:OH	2.30	0.49
17:E:1319:ARG:HG2	17:E:1352:GLY:HA3	1.95	0.49
18:F:192:ALA:HB1	18:F:223:LEU:HD13	1.95	0.49
18:F:505:TYR:OH	18:F:536:MET:SD	2.67	0.49
18:F:540:ASN:HB3	18:F:543:VAL:HG22	1.94	0.49
18:F:599:GLN:HG2	18:F:638:ILE:CD1	2.43	0.49
14:I:68:ILE:O	14:I:69:ARG:C	2.56	0.49
14:I:239:TYR:OH	14:I:282:GLU:OE1	2.28	0.49
14:I:1034:VAL:HG13	14:I:1037:ALA:HB3	1.94	0.49
19:g:82:ASP:O	19:g:86:TYR:N	2.37	0.49
1:A:22:SER:HB3	1:A:27:PHE:HB2	1.95	0.49
1:A:133:MET:HA	1:A:144:PRO:HA	1.93	0.49
1:A:534:PHE:HB2	1:A:543:VAL:O	2.13	0.49
2:B:289:ASN:O	2:B:324:TYR:OH	2.29	0.49
2:B:1208:ASP:OD1	2:B:1208:ASP:N	2.46	0.49
3:H:266:VAL:HG22	3:H:267:SER:H	1.77	0.49
4:J:33:ASP:OD2	7:N:4:ARG:NH2	2.46	0.49
9:P:578:ASN:OD1	10:Q:89:TYR:OH	2.30	0.49
3:h:63:GLY:O	3:h:65:LYS:NZ	2.44	0.49
14:i:764:LYS:HB3	14:i:769:ASP:HB3	1.95	0.49
14:i:1201:ASP:OD1	14:i:1201:ASP:N	2.45	0.49
14:i:1249:ASN:HA	14:i:1252:LEU:HB2	1.95	0.49
7:n:114:MET:HA	7:n:117:ASP:HB3	1.94	0.49
15:C:159:ASP:OD2	15:C:174:ARG:NH2	2.45	0.49
15:C:967:LEU:HB2	15:C:1019:LEU:HD22	1.95	0.49
16:D:271:ALA:CB	16:D:315:TRP:HE1	2.25	0.49
17:E:345:MET:HG3	17:E:346:MET:HE2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:F:371:GLN:O	18:F:375:GLU:HG2	2.13	0.49
14:I:470:VAL:HB	14:I:486:VAL:HB	1.94	0.49
14:I:699:TRP:O	14:I:719:TYR:OH	2.23	0.49
14:I:848:LEU:HD13	14:I:851:ARG:HH21	1.78	0.49
19:g:349:LEU:HA	19:g:352:TYR:HB2	1.95	0.49
1:A:302:VAL:O	1:A:312:VAL:HA	2.13	0.49
1:A:1354:GLN:O	1:A:1358:GLN:CB	2.57	0.49
3:H:136:ASP:HB2	3:H:172:GLY:H	1.78	0.49
3:H:340:LEU:HD13	19:G:321:LYS:HB2	1.94	0.49
3:H:383:CYS:SG	12:S:299:HIS:NE2	2.78	0.49
7:N:292:LYS:HG2	18:F:305:ALA:O	2.13	0.49
8:O:473:TYR:O	8:O:477:GLN:HB2	2.12	0.49
3:h:50:LEU:HB3	3:h:54:ARG:HH21	1.78	0.49
3:h:311:LEU:O	3:h:315:ALA:N	2.45	0.49
14:i:460:LYS:HA	14:i:474:ASP:HA	1.95	0.49
14:i:694:GLN:O	14:i:722:ASN:ND2	2.46	0.49
4:j:152:VAL:HG21	4:j:193:ASP:HA	1.94	0.49
4:j:662:VAL:HG23	4:j:670:GLY:HA3	1.94	0.49
6:l:61:ARG:HA	6:l:64:ALA:HB3	1.93	0.49
7:n:241:TYR:HA	7:n:244:LEU:HG	1.95	0.49
7:n:292:LYS:HZ2	18:f:272:ARG:HA	1.78	0.49
15:C:926:PHE:HA	15:C:958:GLN:HG3	1.94	0.49
16:D:215:TYR:N	16:D:228:VAL:O	2.42	0.49
17:E:1073:PRO:HG2	17:E:1101:LYS:HG3	1.94	0.49
18:F:496:PHE:HB3	18:F:513:LEU:HB2	1.95	0.49
14:I:511:ARG:HB3	14:I:530:CYS:H	1.78	0.49
14:I:1100:TRP:HA	14:I:1103:THR:HG22	1.93	0.49
14:I:1690:GLU:CD	14:I:1691:ALA:H	2.20	0.49
1:A:1092:VAL:HG12	1:A:1101:ARG:HA	1.94	0.49
1:A:1247:ILE:HA	1:A:1250:MET:HE3	1.94	0.49
2:B:542:CYS:HB3	2:B:546:LEU:HD12	1.95	0.49
2:B:984:LYS:HG3	2:B:1008:LYS:HZ3	1.78	0.49
2:B:1135:ASN:HA	2:B:1138:ILE:HD12	1.95	0.49
4:J:445:ASP:OD1	4:J:450:ARG:N	2.43	0.49
4:J:508:ARG:HG2	4:J:561:PHE:H	1.77	0.49
4:J:602:LEU:HB3	4:J:611:MET:HE2	1.94	0.49
8:O:575:LYS:HE2	9:P:579:ILE:HD13	1.94	0.49
8:O:588:LEU:HA	8:O:591:MET:HE3	1.95	0.49
3:h:280:ASP:HB2	20:m:449:LEU:HD13	1.95	0.49
14:i:726:GLU:OE1	14:i:730:ARG:NH2	2.46	0.49
4:j:267:ASP:HB2	6:l:67:LEU:HG	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:l:51:TYR:O	6:l:52:VAL:C	2.56	0.49
15:C:541:SER:H	15:C:558:GLN:N	2.10	0.49
15:C:556:VAL:HG12	15:C:580:LEU:HB3	1.94	0.49
16:D:315:TRP:CZ3	16:D:335:VAL:HG11	2.48	0.49
18:F:644:LYS:HD2	18:F:647:LEU:HD22	1.94	0.49
14:I:726:GLU:HB2	14:I:750:TRP:HB3	1.95	0.49
14:I:882:ILE:HA	14:I:887:THR:HG22	1.95	0.49
14:I:1628:VAL:HG21	14:I:1643:PHE:N	2.20	0.49
20:M:43:LYS:H	20:M:43:LYS:HZ3	1.61	0.49
18:f:195:TYR:HA	18:f:198:ASN:HB2	1.94	0.49
19:g:160:GLU:OE1	19:g:163:ARG:NH1	2.43	0.49
19:g:346:SER:OG	19:g:380:GLN:OE1	2.30	0.49
1:A:93:LEU:O	1:A:97:LYS:CA	2.60	0.48
1:A:524:ARG:HB2	9:P:535:ASN:HB3	1.95	0.48
4:J:64:PRO:HG3	4:J:111:ARG:HE	1.78	0.48
4:J:450:ARG:HH22	14:i:520:GLY:HA2	1.78	0.48
5:K:435:ASN:HD22	7:N:114:MET:HB3	1.77	0.48
14:i:199:LEU:HB3	14:i:232:ARG:HH12	1.78	0.48
14:i:1722:ASN:HB2	14:i:1727:LEU:HG	1.94	0.48
4:j:697:LEU:HD12	4:j:733:MET:SD	2.52	0.48
5:k:440:TYR:O	5:k:444:LEU:N	2.39	0.48
15:C:670:ARG:HD2	15:C:670:ARG:N	2.28	0.48
15:C:807:ARG:HG2	15:C:811:TYR:CE2	2.48	0.48
16:D:474:ASP:HB3	16:D:495:THR:H	1.78	0.48
16:D:902:ILE:HG22	16:D:906:LEU:HD12	1.95	0.48
17:E:210:LEU:HD12	17:E:231:LEU:HB2	1.95	0.48
17:E:769:SER:O	17:E:773:LEU:HB2	2.13	0.48
17:E:1315:TYR:HA	17:E:1318:ALA:HB3	1.94	0.48
18:F:259:ARG:NH2	18:F:286:VAL:O	2.45	0.48
19:G:200:LEU:HD21	19:G:245:LEU:HD23	1.94	0.48
19:G:470:ILE:HD11	19:G:499:TYR:HA	1.95	0.48
14:I:375:ALA:CB	14:I:382:LEU:O	2.61	0.48
14:I:431:LEU:HD21	14:I:459:LYS:HD3	1.95	0.48
14:I:1120:ASP:HA	14:I:1123:ILE:HB	1.94	0.48
19:g:575:TYR:HB2	19:g:579:ARG:HB2	1.95	0.48
4:J:81:ALA:HB1	4:J:107:CYS:HB3	1.95	0.48
4:J:260:TYR:HB3	6:L:89:GLU:HG2	1.95	0.48
4:J:515:MET:HB3	4:J:561:PHE:CE2	2.48	0.48
7:N:64:LYS:O	7:N:68:SER:HB3	2.13	0.48
14:i:1028:GLN:O	14:I:1076:GLN:NE2	2.46	0.48
4:j:159:GLN:HB2	4:j:170:ILE:HG13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C:449:ILE:HG21	16:D:876:ARG:HH21	1.78	0.48
16:D:513:ARG:HB2	16:D:517:VAL:HB	1.95	0.48
17:E:733:VAL:HB	17:E:766:ASP:HB3	1.94	0.48
17:E:867:ASN:O	17:E:868:ARG:NH1	2.41	0.48
18:F:534:HIS:HB2	18:F:547:ILE:HG13	1.96	0.48
19:G:376:ARG:HA	19:G:379:GLU:HG2	1.94	0.48
19:g:81:GLU:OE1	19:g:110:HIS:N	2.44	0.48
19:g:542:GLY:HA3	19:g:557:ARG:HD2	1.95	0.48
19:g:562:LEU:HD23	19:g:617:ILE:HG23	1.95	0.48
2:B:63:GLU:HG2	2:B:64:CYS:H	1.78	0.48
4:J:653:GLU:HA	4:J:764:TYR:HE2	1.79	0.48
7:N:11:GLU:O	7:N:15:ALA:N	2.43	0.48
11:R:91:LEU:HD22	11:R:101:GLU:HG2	1.95	0.48
3:h:418:PHE:HZ	12:s:285:LEU:HD12	1.78	0.48
14:i:722:ASN:ND2	4:j:642:HIS:HA	2.28	0.48
14:i:1042:ALA:HB2	14:i:1057:HIS:HB2	1.94	0.48
16:D:378:ARG:NH2	16:D:397:GLU:OE2	2.46	0.48
17:E:12:TYR:HB2	17:E:20:HIS:CD2	2.48	0.48
14:I:108:ASN:ND2	14:I:143:LEU:O	2.46	0.48
14:I:464:LEU:HD13	14:I:467:LEU:HA	1.94	0.48
14:I:505:LEU:HD11	14:I:542:ILE:HG12	1.94	0.48
18:f:598:TYR:HD1	18:f:611:VAL:HG22	1.77	0.48
2:B:218:VAL:HG21	2:B:257:VAL:HB	1.95	0.48
2:B:291:GLU:OE1	2:B:320:ARG:NH2	2.46	0.48
2:B:942:ARG:HB2	15:C:921:HIS:CD2	2.48	0.48
3:H:2:GLU:HA	3:H:249:LYS:HZ1	1.78	0.48
6:L:50:LYS:HD2	20:M:309:HIS:HE1	1.77	0.48
8:O:584:LEU:HD13	9:P:582:VAL:HG11	1.95	0.48
11:R:4:TYR:HE2	11:R:52:GLU:HB3	1.78	0.48
3:h:123:HIS:ND1	7:n:254:SER:OG	2.46	0.48
14:i:255:PRO:HD2	14:i:301:PRO:HA	1.94	0.48
14:i:1352:LEU:HD23	14:i:1355:ILE:HD11	1.94	0.48
4:j:379:LEU:HB3	4:j:386:LEU:HB2	1.95	0.48
5:k:429:LEU:HD12	6:l:55:ILE:HD11	1.95	0.48
5:k:445:THR:O	5:k:449:MET:N	2.39	0.48
15:C:155:LEU:O	15:C:163:SER:OG	2.26	0.48
17:E:565:SER:O	17:E:569:LEU:HB2	2.13	0.48
17:E:733:VAL:HG13	17:E:734:LYS:HG3	1.95	0.48
18:F:443:THR:OG1	18:F:478:ASN:OD1	2.32	0.48
18:F:530:PHE:HA	18:F:533:LEU:HD12	1.95	0.48
19:G:447:GLU:HB3	19:G:452:LYS:HD2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:1147:LEU:HB3	14:I:1148:PRO:HD3	1.94	0.48
18:f:352:LYS:N	19:g:637:MET:HB3	2.28	0.48
18:f:579:ALA:HB2	18:f:608:ASN:HD21	1.77	0.48
19:g:522:SER:O	19:g:523:SER:C	2.56	0.48
1:A:607:GLN:NE2	1:A:670:TYR:OH	2.46	0.48
1:A:1223:ALA:O	1:A:1227:ALA:CB	2.61	0.48
2:B:473:VAL:HB	2:B:484:VAL:O	2.14	0.48
2:B:677:THR:OG1	2:B:700:SER:OG	2.32	0.48
3:H:35:ARG:HG2	3:H:40:PRO:HD2	1.95	0.48
3:H:301:ASP:HB3	18:F:271:VAL:HB	1.95	0.48
4:J:573:GLY:HA3	6:L:92:ARG:HG2	1.95	0.48
5:K:414:LYS:HD3	6:L:44:MET:HG2	1.94	0.48
3:h:235:GLU:HB2	3:h:237:ASN:H	1.78	0.48
3:h:428:SER:HA	3:h:431:LEU:HD12	1.95	0.48
4:j:466:ALA:HB1	4:j:508:ARG:HH22	1.79	0.48
6:l:82:GLU:HG2	6:l:83:ARG:HE	1.77	0.48
7:n:292:LYS:HZ3	18:f:272:ARG:HH11	1.61	0.48
15:C:637:ALA:HB1	15:C:649:ALA:HA	1.96	0.48
15:C:1033:PRO:HG2	15:C:1048:GLU:H	1.79	0.48
16:D:304:ARG:HG3	16:D:555:ILE:HB	1.95	0.48
16:D:685:SER:O	16:D:690:TRP:HZ2	1.96	0.48
17:E:100:ILE:HG13	17:E:101:GLU:HG2	1.95	0.48
17:E:910:LEU:HA	17:E:913:GLN:HB3	1.95	0.48
18:F:483:LEU:HB3	18:F:488:ASP:HB2	1.95	0.48
19:G:45:GLU:HG2	19:G:76:LEU:HD23	1.95	0.48
19:G:334:LEU:HD21	19:G:350:TYR:HD1	1.78	0.48
19:G:555:VAL:HA	19:G:558:ILE:HB	1.96	0.48
14:I:1248:TRP:HD1	14:I:1322:LEU:HD22	1.78	0.48
14:I:1547:TYR:CE1	14:I:1746:VAL:HG22	2.49	0.48
18:f:630:PRO:O	18:f:634:LEU:N	2.47	0.48
19:g:146:MET:O	19:g:150:GLY:N	2.46	0.48
19:g:467:LYS:HA	19:g:470:ILE:HG13	1.96	0.48
19:g:584:LEU:HD13	19:g:603:ILE:HG23	1.94	0.48
20:m:316:HIS:HB2	20:m:317:LYS:HZ2	1.78	0.48
1:A:164:MET:O	1:A:175:LEU:HA	2.13	0.48
1:A:489:ASN:HD22	1:A:489:ASN:C	2.21	0.48
1:A:989:VAL:HG12	1:A:1017:ILE:HD12	1.95	0.48
2:B:516:VAL:HG22	2:B:522:VAL:HB	1.94	0.48
2:B:524:ILE:H	2:B:536:ALA:HB3	1.78	0.48
2:B:984:LYS:HG3	2:B:1008:LYS:NZ	2.28	0.48
3:H:61:LEU:HB2	3:H:86:ILE:HG23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:273:PRO:HD3	18:F:573:ASN:HB2	1.96	0.48
4:J:328:ASP:HB3	4:J:363:LEU:HD23	1.94	0.48
4:J:509:TRP:CE3	4:J:516:LEU:HB2	2.49	0.48
12:S:290:VAL:HG21	12:S:301:LEU:HD22	1.94	0.48
13:T:101:THR:O	13:T:105:ASN:ND2	2.35	0.48
3:h:271:LEU:HG	7:n:265:LEU:HD23	1.95	0.48
14:i:222:ASN:CG	14:i:239:TYR:HB2	2.39	0.48
14:i:1274:GLN:NE2	14:i:1294:GLY:HA2	2.28	0.48
14:i:1363:GLU:HA	14:i:1366:GLU:HB2	1.96	0.48
14:i:1502:HIS:HB3	14:i:1648:ARG:HE	1.79	0.48
14:i:1539:ASP:O	14:i:1543:PHE:N	2.47	0.48
12:s:294:PRO:O	12:s:298:LEU:N	2.42	0.48
15:C:637:ALA:O	15:C:641:ALA:CB	2.59	0.48
16:D:346:ASN:HB2	16:D:368:LYS:HB2	1.96	0.48
17:E:1096:LEU:HB3	17:E:1113:MET:HG2	1.96	0.48
19:G:615:LYS:O	19:G:630:THR:OG1	2.27	0.48
14:I:129:VAL:O	14:I:140:LEU:HA	2.13	0.48
19:g:422:ALA:HA	19:g:434:VAL:HG11	1.95	0.48
19:g:425:TYR:HA	19:g:430:LEU:HD12	1.95	0.48
19:g:474:GLU:OE1	19:g:499:TYR:OH	2.30	0.48
1:A:42:ARG:HH22	1:A:360:LEU:HD11	1.79	0.48
1:A:449:ASN:HB2	1:A:497:PRO:HA	1.94	0.48
1:A:599:VAL:HG11	15:C:979:VAL:HA	1.95	0.48
2:B:215:LEU:HD23	2:B:227:LEU:HD12	1.95	0.48
2:B:888:LYS:HB3	2:B:891:GLU:HB3	1.94	0.48
2:B:1317:LEU:HD22	2:B:1322:ARG:HG2	1.95	0.48
3:H:238:SER:O	3:H:242:ASP:N	2.41	0.48
9:P:513:ARG:HA	9:P:516:ARG:HB2	1.94	0.48
3:h:106:LEU:HA	3:h:109:PHE:CD2	2.45	0.48
3:h:271:LEU:HD11	7:n:262:LEU:HD22	1.96	0.48
14:i:964:VAL:O	14:i:969:LEU:N	2.44	0.48
4:j:382:GLU:HG3	4:j:426:ASN:HD21	1.79	0.48
15:C:53:HIS:HB3	15:C:55:LEU:HG	1.95	0.48
16:D:40:VAL:HB	16:D:68:GLN:HB2	1.95	0.48
16:D:313:ILE:HB	16:D:322:LEU:HD21	1.95	0.48
16:D:545:CYS:SG	16:D:591:ARG:NH2	2.85	0.48
16:D:776:ARG:O	16:D:780:GLU:HB2	2.12	0.48
16:D:1060:ASP:HA	17:E:781:GLN:NE2	2.28	0.48
17:E:841:LEU:HD22	17:E:866:ARG:HH22	1.78	0.48
18:F:381:ASN:ND2	18:F:384:GLU:OE1	2.46	0.48
14:I:168:ASN:O	14:I:170:GLN:NE2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:f:231:HIS:HB2	18:f:240:ALA:HB2	1.95	0.48
18:f:659:LEU:HD22	18:f:686:LEU:HD21	1.96	0.48
19:g:489:ALA:HA	19:g:492:LEU:HD12	1.95	0.48
1:A:490:ILE:HA	1:A:504:SER:HA	1.96	0.48
4:J:16:LEU:O	7:N:4:ARG:NH2	2.38	0.48
4:J:61:HIS:CD2	4:J:111:ARG:HG2	2.49	0.48
4:J:645:ARG:HG2	14:I:694:GLN:HB3	1.95	0.48
8:O:580:GLN:HA	8:O:585:GLN:HB3	1.94	0.48
10:Q:29:LYS:HE2	10:Q:78:GLY:HA2	1.96	0.48
13:T:156:PRO:O	13:T:160:VAL:N	2.46	0.48
3:h:405:GLN:NE2	12:s:270:ASP:OD1	2.46	0.48
14:i:185:ASN:HD22	14:i:195:THR:H	1.61	0.48
14:i:213:SER:N	14:i:254:ASN:O	2.47	0.48
14:i:515:LEU:HD13	14:i:559:PRO:HB3	1.95	0.48
14:i:1246:ARG:CB	14:i:1279:GLY:HA3	2.33	0.48
4:j:24:VAL:HB	4:j:68:LYS:HD2	1.96	0.48
4:j:536:ASP:HA	4:j:664:ARG:HE	1.77	0.48
4:j:586:VAL:HG12	4:j:590:MET:HE3	1.95	0.48
5:k:495:ASN:HB3	6:l:114:VAL:HG12	1.94	0.48
7:n:192:ILE:HG23	20:m:373:VAL:HG21	1.95	0.48
16:D:83:ASN:ND2	16:D:147:VAL:O	2.46	0.48
16:D:471:PHE:HB2	16:D:491:MET:HE1	1.95	0.48
17:E:191:LEU:HD21	17:E:227:LYS:HE3	1.96	0.48
17:E:321:MET:HA	17:E:324:ARG:HB2	1.95	0.48
17:E:506:THR:HG21	17:E:733:VAL:HG11	1.94	0.48
18:F:260:PHE:CZ	18:F:291:PRO:HA	2.49	0.48
18:F:306:LEU:HD23	18:F:306:LEU:H	1.79	0.48
18:F:438:LYS:O	18:F:442:ALA:CB	2.62	0.48
19:G:33:ILE:HD11	19:G:56:CYS:HB2	1.95	0.48
14:I:182:TRP:HA	14:I:198:GLN:HA	1.96	0.48
14:I:1691:ALA:HB2	14:I:1710:TYR:CE2	2.48	0.48
18:f:143:ASP:OD2	18:f:155:ASN:ND2	2.46	0.48
20:m:24:GLU:HA	20:m:52:ARG:HD2	1.95	0.48
2:B:1:MET:HE3	2:B:347:PRO:HG3	1.95	0.48
2:B:33:LEU:HD12	2:B:55:ASN:ND2	2.29	0.48
2:B:494:LEU:HD22	2:B:532:ALA:HB2	1.95	0.48
2:B:576:VAL:HB	2:B:600:PRO:HD2	1.95	0.48
2:B:714:ASP:C	2:B:716:LYS:N	2.72	0.48
2:B:809:LYS:HD3	2:B:812:ILE:HD12	1.94	0.48
4:J:186:ASP:OD1	4:J:186:ASP:N	2.46	0.48
6:L:106:MET:HA	6:L:109:GLN:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:N:156:GLN:O	7:N:157:GLU:C	2.57	0.48
10:Q:16:ARG:HB3	11:R:42:MET:HG2	1.95	0.48
14:i:978:TYR:HB3	14:i:1001:ALA:HB2	1.96	0.48
4:j:695:ARG:HH21	4:j:699:LEU:HD21	1.78	0.48
5:k:479:LYS:HA	5:k:482:ARG:HB2	1.95	0.48
6:l:27:SER:O	7:n:137:LYS:NZ	2.47	0.48
7:n:166:ARG:NH2	20:m:346:GLN:OE1	2.46	0.48
16:D:186:ASP:N	16:D:186:ASP:OD1	2.46	0.48
16:D:937:ARG:O	16:D:941:ASP:HB2	2.13	0.48
17:E:89:ASP:N	17:E:89:ASP:OD1	2.47	0.48
17:E:599:ARG:HH22	17:E:608:GLN:HB2	1.77	0.48
17:E:1077:TYR:HB3	17:E:1112:HIS:CE1	2.48	0.48
17:E:1348:LYS:HA	17:E:1351:MET:HE1	1.95	0.48
18:F:561:VAL:HG13	18:F:584:ILE:HD13	1.94	0.48
19:G:73:LEU:HB3	19:G:83:TYR:CD2	2.49	0.48
14:I:23:THR:HG21	14:I:72:ALA:HA	1.96	0.48
20:M:350:LYS:O	20:M:354:GLU:N	2.45	0.48
19:g:98:PRO:HG3	19:g:125:GLN:HG3	1.95	0.48
19:g:175:TYR:OH	19:g:202:GLU:OE1	2.31	0.48
19:g:214:LEU:HD23	19:g:217:GLY:HA3	1.95	0.48
19:g:531:CYS:HB3	19:g:562:LEU:HA	1.96	0.48
1:A:460:HIS:CE1	1:A:482:PRO:HB2	2.49	0.48
2:B:70:HIS:HD2	2:B:73:LEU:H	1.61	0.48
2:B:427:LEU:HD13	2:B:434:LEU:HD11	1.95	0.48
2:B:1177:ALA:HA	2:B:1180:ILE:HD12	1.96	0.48
4:J:264:HIS:N	6:L:82:GLU:OE1	2.46	0.48
6:L:108:GLU:HA	6:L:111:LEU:HB2	1.96	0.48
10:Q:101:ASP:OD2	10:Q:103:SER:OG	2.28	0.48
12:S:273:LEU:HA	12:S:277:THR:HB	1.96	0.48
3:h:419:ARG:HE	3:h:436:ASP:HA	1.79	0.48
14:i:449:GLN:H	14:i:458:SER:HB3	1.79	0.48
4:j:37:ILE:HG22	4:j:50:VAL:HB	1.95	0.48
4:j:707:GLN:NE2	4:j:736:SER:OG	2.47	0.48
5:k:507:THR:OG1	5:k:508:ALA:N	2.47	0.48
6:l:22:ASP:N	6:l:22:ASP:OD1	2.44	0.48
7:n:51:GLU:HG2	7:n:69:VAL:HG11	1.96	0.48
7:n:230:LEU:HD22	20:m:412:ILE:CD1	2.35	0.48
15:C:438:ILE:HB	15:C:452:ILE:O	2.14	0.48
16:D:594:ASP:OD1	16:D:594:ASP:N	2.47	0.48
17:E:1280:MET:HE2	17:E:1280:MET:HB2	1.65	0.48
18:F:248:LEU:HD22	18:F:252:SER:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:88:ALA:HB1	19:G:117:LEU:HD22	1.96	0.48
19:G:473:TYR:HE2	19:G:494:ASN:HB2	1.78	0.48
19:G:485:LEU:HD22	19:G:533:HIS:HB2	1.94	0.48
18:f:490:GLU:O	18:f:494:SER:N	2.45	0.48
1:A:579:ASP:HB3	1:A:582:VAL:HB	1.95	0.47
2:B:719:ARG:HA	2:B:722:LEU:HG	1.96	0.47
2:B:1246:TYR:O	2:B:1250:LEU:N	2.46	0.47
2:B:1307:LEU:HB3	2:B:1353:ARG:HH22	1.79	0.47
3:H:89:LEU:HD21	3:H:241:MET:HE1	1.96	0.47
3:H:120:ARG:HH21	7:N:264:PHE:HE2	1.60	0.47
3:H:281:LYS:HB3	20:M:449:LEU:HD11	1.96	0.47
4:J:536:ASP:HB3	4:J:539:LEU:HB2	1.96	0.47
7:N:133:PRO:HA	7:N:137:LYS:HD3	1.96	0.47
10:Q:95:TYR:HB3	10:Q:182:ILE:CD1	2.42	0.47
3:h:341:PRO:HB2	19:g:317:LEU:HG	1.96	0.47
4:j:472:THR:HG23	4:j:592:ARG:HH11	1.79	0.47
7:n:148:ALA:HA	20:m:327:SER:HA	1.96	0.47
15:C:83:VAL:HG11	15:C:114:LEU:HD21	1.96	0.47
15:C:177:THR:HG23	15:C:197:ALA:HB1	1.95	0.47
16:D:703:PHE:HB3	16:D:725:LEU:HD12	1.96	0.47
18:F:134:HIS:HA	18:F:137:LEU:HB2	1.96	0.47
18:F:219:GLN:HG3	19:G:594:VAL:HG13	1.95	0.47
18:F:278:ASP:O	18:F:282:SER:N	2.47	0.47
19:G:59:TYR:HA	19:G:232:GLN:CB	2.41	0.47
14:I:244:GLU:OE1	14:I:267:ARG:NH1	2.47	0.47
14:I:305:LYS:NZ	14:I:319:ASP:OD1	2.46	0.47
19:g:20:ILE:O	19:g:24:ILE:HG12	2.13	0.47
19:g:66:ALA:O	19:g:70:TYR:N	2.43	0.47
20:m:74:THR:O	20:m:78:GLY:N	2.47	0.47
1:A:35:ARG:HD2	1:A:66:ALA:HB1	1.95	0.47
1:A:1156:PRO:HD2	1:A:1358:GLN:HE21	1.78	0.47
2:B:609:GLU:HB2	2:B:722:LEU:HD22	1.95	0.47
3:H:17:LYS:O	3:H:61:LEU:HD11	2.14	0.47
14:i:657:ASP:O	14:i:658:ILE:C	2.58	0.47
14:i:1517:ARG:HG2	14:i:1547:TYR:HD1	1.77	0.47
4:j:26:ASN:ND2	4:j:279:ASP:OD1	2.47	0.47
7:n:137:LYS:HD3	7:n:140:ALA:HB3	1.96	0.47
16:D:292:PHE:HE2	16:D:322:LEU:HD13	1.79	0.47
16:D:320:LEU:HD13	16:D:337:PRO:HG3	1.96	0.47
17:E:539:ARG:HA	17:E:542:TYR:CE1	2.50	0.47
18:F:395:ARG:HG2	18:F:400:THR:HA	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:82:ASP:HA	19:G:85:LEU:HD12	1.96	0.47
14:I:691:MET:HA	14:I:694:GLN:HG3	1.95	0.47
20:M:309:HIS:HD2	20:M:310:LEU:HD23	1.78	0.47
18:f:166:LEU:HD23	18:f:183:LEU:HD11	1.95	0.47
19:g:269:ARG:HB2	19:g:274:LEU:HG	1.96	0.47
19:g:298:LEU:HA	19:g:301:LEU:HD12	1.96	0.47
2:B:99:SER:H	2:B:100:LYS:HZ3	1.62	0.47
2:B:104:ASN:HB3	2:B:122:ASP:HB2	1.94	0.47
2:B:206:LEU:HD13	2:B:217:VAL:HG22	1.96	0.47
2:B:230:ASP:OD1	2:B:230:ASP:N	2.47	0.47
3:H:190:VAL:HG21	3:H:256:LEU:HA	1.95	0.47
4:J:189:VAL:HG11	4:J:203:THR:HB	1.96	0.47
6:L:38:ILE:O	6:L:42:GLN:HG2	2.14	0.47
7:N:63:VAL:HG21	17:E:208:ASP:CG	2.39	0.47
8:O:533:VAL:HA	8:O:536:ILE:HG12	1.96	0.47
12:S:312:PRO:HA	12:S:315:ARG:HE	1.80	0.47
3:h:30:LEU:O	3:h:34:LEU:HB2	2.14	0.47
14:i:1187:ASN:HA	14:I:1258:TYR:CZ	2.49	0.47
4:j:4:LYS:HA	4:j:263:ILE:HB	1.96	0.47
5:k:484:ARG:O	5:k:488:MET:N	2.45	0.47
15:C:877:ASN:HB3	15:C:882:MET:HA	1.97	0.47
15:C:1017:ASN:HB2	15:C:1028:ILE:HG23	1.96	0.47
16:D:103:LEU:O	16:D:104:HIS:ND1	2.47	0.47
16:D:1041:TYR:HE1	17:E:1099:ALA:HA	1.79	0.47
17:E:103:ARG:HH11	17:E:105:ALA:HB3	1.79	0.47
17:E:231:LEU:HD23	17:E:231:LEU:HA	1.79	0.47
17:E:986:ALA:O	17:E:990:GLN:OE1	2.32	0.47
18:F:316:PHE:CG	18:F:373:ILE:HD12	2.49	0.47
14:I:152:TYR:HE1	14:I:184:PHE:HB2	1.79	0.47
14:I:294:VAL:HA	14:I:310:SER:HA	1.96	0.47
1:A:495:LEU:HD13	1:A:500:VAL:HG22	1.95	0.47
1:A:500:VAL:HB	1:A:512:TYR:HB2	1.96	0.47
1:A:1191:ARG:O	1:A:1195:ASN:ND2	2.45	0.47
2:B:225:ASN:ND2	2:B:241:LYS:HG3	2.29	0.47
2:B:325:LYS:HD3	2:B:621:PHE:HB2	1.95	0.47
3:H:226:MET:C	3:H:228:ASP:H	2.23	0.47
4:J:428:THR:HA	4:J:445:ASP:HA	1.96	0.47
9:P:514:SER:O	9:P:517:GLN:HG3	2.14	0.47
3:h:209:VAL:HG13	3:h:247:PHE:CZ	2.50	0.47
3:h:420:ARG:NH1	12:s:305:TYR:OH	2.44	0.47
14:i:211:TRP:HE3	14:i:215:ILE:HB	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:377:THR:HG1	14:i:380:THR:HG1	1.62	0.47
14:i:823:TYR:O	14:i:828:ARG:N	2.41	0.47
14:i:856:GLU:O	14:i:860:ILE:N	2.36	0.47
14:i:1146:LYS:HD2	14:i:1150:VAL:HG23	1.96	0.47
4:j:697:LEU:HD21	4:j:729:ARG:HG3	1.97	0.47
15:C:411:ASP:OD1	15:C:411:ASP:N	2.48	0.47
15:C:718:ILE:HG23	15:C:723:TYR:HE1	1.78	0.47
15:C:913:VAL:HG21	15:C:950:ASN:ND2	2.30	0.47
16:D:184:VAL:HG12	16:D:209:ILE:HD13	1.97	0.47
16:D:427:ALA:HB1	16:D:504:ALA:HB2	1.97	0.47
16:D:561:PHE:N	16:D:580:LEU:O	2.46	0.47
17:E:570:LEU:O	17:E:573:SER:OG	2.29	0.47
19:G:181:TYR:CZ	19:G:241:GLU:HB3	2.49	0.47
14:I:102:GLU:O	14:I:104:LYS:NZ	2.44	0.47
14:I:183:LYS:O	14:I:197:SER:OG	2.31	0.47
14:I:1355:ILE:O	14:I:1357:ARG:NH1	2.47	0.47
14:I:1692:ASN:O	14:I:1693:LEU:C	2.56	0.47
18:f:151:SER:O	18:f:151:SER:OG	2.32	0.47
19:g:512:MET:HE3	19:g:512:MET:HB3	1.68	0.47
20:m:43:LYS:O	20:m:44:LYS:C	2.56	0.47
1:A:163:ILE:HA	1:A:177:ASP:HA	1.96	0.47
2:B:186:TRP:N	2:B:194:GLY:O	2.46	0.47
3:H:191:PRO:HA	3:H:208:ALA:HA	1.97	0.47
3:H:202:MET:O	3:H:266:VAL:HB	2.15	0.47
4:J:684:ILE:HG12	4:J:699:LEU:HD13	1.96	0.47
7:N:53:ALA:HB1	7:N:65:PHE:HB3	1.96	0.47
7:N:95:LYS:HA	7:N:95:LYS:HD3	1.55	0.47
7:N:300:ARG:CB	18:f:164:ARG:HH22	2.27	0.47
8:O:562:ARG:HA	8:O:562:ARG:HD2	1.42	0.47
10:Q:100:PHE:O	10:Q:135:ALA:HA	2.14	0.47
3:h:271:LEU:H	7:n:269:LEU:HD11	1.79	0.47
14:i:970:THR:HG21	14:I:1016:ASN:HB3	1.96	0.47
14:i:1567:ILE:O	14:i:1571:ASN:ND2	2.48	0.47
4:j:641:THR:CG2	4:j:645:ARG:HB2	2.44	0.47
4:j:675:LEU:HD13	4:j:695:ARG:HH22	1.80	0.47
5:k:448:ARG:O	5:k:452:ASP:N	2.46	0.47
6:l:87:GLN:NE2	6:l:90:GLN:OE1	2.45	0.47
15:C:156:GLY:HA2	15:C:162:ILE:HA	1.96	0.47
16:D:424:LYS:HD2	16:D:437:ASN:HA	1.97	0.47
16:D:936:ALA:HB3	17:E:747:ARG:HH12	1.78	0.47
17:E:180:VAL:HG11	17:E:193:LYS:HE2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:778:MET:HE2	17:E:786:ALA:HB1	1.97	0.47
17:E:985:ASP:N	17:E:985:ASP:OD1	2.45	0.47
17:E:1329:HIS:O	17:E:1333:LYS:HG3	2.15	0.47
19:G:25:LYS:HE3	19:G:212:PRO:HG3	1.97	0.47
19:G:36:LEU:HD12	19:G:52:LEU:HB3	1.96	0.47
19:G:463:ASP:OD1	19:G:463:ASP:N	2.45	0.47
19:G:517:LYS:NZ	19:G:520:GLU:OE1	2.47	0.47
14:I:120:VAL:HG22	14:I:163:LEU:CB	2.42	0.47
14:I:174:SER:HB3	14:I:182:TRP:HB2	1.96	0.47
14:I:239:TYR:HB3	14:I:245:VAL:HG11	1.95	0.47
20:M:104:VAL:HG22	20:M:134:LEU:HD21	1.95	0.47
18:f:279:ALA:O	18:f:283:PHE:N	2.46	0.47
18:f:457:GLN:O	18:f:461:TYR:N	2.42	0.47
20:m:462:ALA:O	20:m:467:GLU:HG2	2.14	0.47
1:A:305:ALA:HB1	1:A:335:ILE:HD13	1.95	0.47
1:A:1147:LYS:O	1:A:1151:ALA:CB	2.63	0.47
2:B:523:ARG:HD2	2:B:534:PRO:HB3	1.95	0.47
2:B:603:LEU:HD22	2:B:613:LEU:HD11	1.95	0.47
2:B:724:PHE:HZ	2:B:761:ARG:HH12	1.62	0.47
2:B:977:ILE:HA	2:B:985:ARG:H	1.79	0.47
3:H:87:LEU:HD21	3:H:241:MET:SD	2.54	0.47
3:H:283:LYS:HD3	20:M:449:LEU:HB3	1.97	0.47
4:J:49:LYS:HD3	4:J:49:LYS:HA	1.71	0.47
4:J:316:ARG:HA	4:J:316:ARG:HD2	1.73	0.47
7:N:9:PHE:CE1	7:N:98:LEU:HB3	2.50	0.47
8:O:537:GLN:O	8:O:541:ASN:ND2	2.46	0.47
13:T:23:ARG:NH2	13:T:38:GLN:HB2	2.29	0.47
3:h:138:ILE:HG23	3:h:144:ILE:HG12	1.97	0.47
3:h:160:ARG:NH1	3:h:167:ALA:O	2.48	0.47
14:i:165:SER:HB2	14:i:173:ILE:H	1.78	0.47
14:i:491:LYS:NZ	14:i:492:VAL:O	2.45	0.47
14:i:648:ALA:HB1	14:i:692:MET:HE1	1.96	0.47
14:i:1248:TRP:C	14:i:1250:ASP:H	2.22	0.47
14:i:1595:ALA:HA	14:i:1598:GLU:HB2	1.96	0.47
4:j:377:LEU:HD21	4:j:388:LEU:HD22	1.97	0.47
15:C:423:PRO:HD3	16:D:831:PHE:HD1	1.79	0.47
15:C:468:ASN:ND2	15:C:507:ASP:OD2	2.39	0.47
15:C:976:GLN:HE22	15:C:985:GLN:HE22	1.62	0.47
15:C:1098:ASN:HA	15:C:1101:ASP:HB2	1.95	0.47
16:D:632:LEU:HB2	16:D:688:ARG:HD3	1.97	0.47
16:D:875:LYS:HA	16:D:878:ILE:HD12	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:244:LEU:HD13	17:E:261:ASN:HA	1.95	0.47
17:E:505:PRO:HA	17:E:509:PRO:HG3	1.95	0.47
17:E:564:GLU:HA	17:E:595:ASN:HD21	1.79	0.47
17:E:829:ALA:HA	17:E:839:LEU:HD11	1.96	0.47
17:E:1237:ARG:HH11	17:E:1241:LEU:HD12	1.79	0.47
17:E:1297:TRP:CZ3	17:E:1333:LYS:HD3	2.49	0.47
17:E:1308:GLY:CA	17:E:1331:VAL:HG22	2.44	0.47
19:G:221:ASP:OD1	19:G:221:ASP:N	2.45	0.47
14:I:112:GLN:HG3	14:I:133:LEU:HD21	1.96	0.47
14:I:498:ASN:HD21	14:I:502:THR:H	1.61	0.47
14:I:1247:MET:CE	14:I:1250:ASP:HB2	2.45	0.47
14:I:1353:GLN:O	14:I:1358:HIS:NE2	2.47	0.47
18:f:669:ILE:HA	18:f:672:GLN:HE21	1.80	0.47
1:A:56:GLU:H	1:A:86:ASN:ND2	2.13	0.47
1:A:343:ASP:HB2	1:A:364:PRO:HG2	1.97	0.47
1:A:541:ARG:NH1	1:A:581:ASN:OD1	2.38	0.47
2:B:89:ASN:O	2:B:93:ARG:CA	2.62	0.47
2:B:158:LEU:HB3	2:B:229:ARG:HH12	1.80	0.47
2:B:716:LYS:O	2:B:720:ALA:N	2.44	0.47
2:B:1303:CYS:O	2:B:1307:LEU:HG	2.15	0.47
3:H:58:ILE:HD11	3:H:249:LYS:HB3	1.97	0.47
4:J:158:ASP:O	4:J:173:LEU:N	2.48	0.47
4:J:422:ILE:HD11	4:J:432:LEU:HB2	1.96	0.47
4:J:632:PHE:CG	4:J:640:LYS:HB3	2.49	0.47
4:J:652:THR:HG22	4:J:654:GLU:H	1.79	0.47
8:O:422:PHE:O	8:O:426:LYS:CB	2.62	0.47
8:O:629:VAL:HG22	12:S:260:PHE:HB2	1.95	0.47
9:P:610:ARG:O	9:P:614:ARG:HG2	2.15	0.47
9:P:629:ILE:HG23	9:P:633:MET:HE2	1.97	0.47
11:R:39:THR:HG21	11:R:116:LEU:HD22	1.97	0.47
11:R:67:VAL:HB	11:R:91:LEU:HD12	1.97	0.47
12:S:243:MET:HE1	12:S:300:VAL:HG22	1.96	0.47
13:T:68:VAL:HA	13:T:71:GLN:HG3	1.97	0.47
13:T:123:GLN:HG2	13:T:132:GLY:H	1.80	0.47
3:h:226:MET:HG2	3:h:237:ASN:HB3	1.97	0.47
3:h:393:ILE:HD13	3:h:414:LEU:HG	1.96	0.47
14:i:147:LYS:NZ	14:i:187:PRO:O	2.47	0.47
14:i:535:TRP:HH2	14:i:556:VAL:HG11	1.79	0.47
14:i:1252:LEU:HD23	14:i:1252:LEU:HA	1.74	0.47
14:i:1452:GLU:O	14:i:1456:ASN:N	2.47	0.47
14:i:1457:TYR:HA	14:i:1460:LYS:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:j:108:ILE:HG12	4:j:123:GLY:HA2	1.95	0.47
4:j:263:ILE:HG12	6:l:82:GLU:HB2	1.95	0.47
4:j:476:ARG:HB2	4:j:493:MET:HE1	1.95	0.47
4:j:664:ARG:HB3	4:j:665:ARG:O	2.14	0.47
5:k:451:GLN:HA	5:k:454:LEU:HB3	1.97	0.47
15:C:239:SER:HB2	15:C:265:VAL:HB	1.96	0.47
15:C:677:LYS:O	15:C:681:GLU:HB2	2.15	0.47
16:D:136:VAL:HA	16:D:141:ALA:O	2.15	0.47
16:D:640:ASP:O	16:D:644:GLN:N	2.34	0.47
16:D:810:GLN:O	16:D:814:GLN:HG3	2.15	0.47
16:D:856:GLN:HE22	16:D:876:ARG:HG3	1.79	0.47
16:D:1043:GLY:HA2	17:E:1098:LEU:HA	1.97	0.47
17:E:564:GLU:OE2	17:E:566:SER:OG	2.32	0.47
18:F:621:LYS:HG2	18:F:624:VAL:HG11	1.96	0.47
19:G:526:ASP:N	19:G:526:ASP:OD1	2.48	0.47
14:I:970:THR:C	14:I:972:SER:N	2.72	0.47
14:I:1212:GLN:HG3	14:I:1228:LEU:HD13	1.96	0.47
14:I:1501:LEU:HD11	14:I:1583:ILE:HG22	1.96	0.47
14:I:1705:CYS:HB3	14:I:1709:GLY:H	1.79	0.47
18:f:259:ARG:HH12	18:f:287:MET:HE2	1.79	0.47
18:f:272:ARG:O	18:f:273:MET:C	2.57	0.47
19:g:187:TYR:O	19:g:192:GLN:N	2.48	0.47
1:A:596:TYR:HA	1:A:606:VAL:HA	1.96	0.47
1:A:1301:LEU:HD21	1:A:1348:LEU:HG	1.97	0.47
3:H:195:SER:HB2	3:H:206:VAL:HG11	1.97	0.47
7:N:9:PHE:C	7:N:11:GLU:N	2.72	0.47
13:T:19:THR:OG1	13:T:63:ASP:OD2	2.30	0.47
3:h:304:LEU:HB3	18:f:193:HIS:CE1	2.49	0.47
14:i:22:LEU:HD22	14:i:31:LEU:HD12	1.96	0.47
14:i:75:PRO:HG3	14:i:123:LYS:HG3	1.96	0.47
14:i:261:VAL:HG22	14:i:270:MET:HE1	1.97	0.47
14:i:1239:LEU:HA	14:i:1242:TYR:CD2	2.50	0.47
12:s:182:PRO:HB2	12:s:203:MET:HB2	1.96	0.47
15:C:1175:ALA:HA	15:C:1181:ALA:HA	1.97	0.47
16:D:305:VAL:HG21	16:D:310:ILE:HD11	1.95	0.47
16:D:351:ALA:HB1	16:D:360:HIS:HB3	1.97	0.47
17:E:800:ASP:OD1	17:E:800:ASP:N	2.47	0.47
18:F:308:ASP:OD1	18:F:308:ASP:N	2.48	0.47
19:G:73:LEU:HD13	19:G:83:TYR:CD1	2.49	0.47
1:A:93:LEU:O	1:A:97:LYS:N	2.48	0.47
1:A:796:LEU:HD13	1:A:804:ASN:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:432:GLY:HA2	2:B:447:VAL:HB	1.96	0.47
2:B:466:MET:SD	2:B:475:ARG:HB2	2.54	0.47
2:B:941:GLN:NE2	15:C:918:ARG:O	2.48	0.47
2:B:981:THR:OG1	2:B:982:LEU:N	2.48	0.47
3:H:226:MET:HB2	3:H:241:MET:HE2	1.97	0.47
4:J:20:VAL:HG12	4:J:30:THR:HG23	1.97	0.47
14:i:211:TRP:CE3	14:i:215:ILE:HB	2.50	0.47
14:i:1006:VAL:HG13	14:i:1025:LEU:HD13	1.97	0.47
4:j:110:LEU:HD21	4:j:119:LEU:HD22	1.97	0.47
4:j:461:GLU:OE1	4:j:483:ARG:NH2	2.44	0.47
15:C:988:VAL:O	15:C:992:SER:OG	2.30	0.47
15:C:1068:ALA:HB1	15:C:1129:LYS:HE3	1.97	0.47
16:D:1021:ASP:N	16:D:1021:ASP:OD1	2.46	0.47
17:E:262:CYS:HB2	17:E:278:GLN:HB3	1.97	0.47
19:G:200:LEU:HD13	19:G:246:LYS:HZ2	1.80	0.47
19:G:355:ALA:HA	19:G:366:ALA:HB1	1.97	0.47
19:G:415:ILE:HG13	19:G:450:VAL:HG23	1.97	0.47
14:I:1229:PHE:HB3	14:I:1238:ALA:HB2	1.97	0.47
14:I:1489:TYR:O	14:I:1492:LEU:HB3	2.15	0.47
14:I:1507:ASP:OD1	14:I:1507:ASP:N	2.48	0.47
14:I:1661:ASN:O	14:I:1664:LEU:HG	2.14	0.47
20:M:13:LEU:HA	20:M:109:PHE:HD2	1.79	0.47
20:M:43:LYS:H	20:M:43:LYS:HG3	1.48	0.47
19:g:214:LEU:HD21	19:g:229:GLY:H	1.79	0.47
19:g:275:ASP:O	19:g:279:LEU:N	2.44	0.47
1:A:723:VAL:HB	1:A:735:HIS:HB3	1.97	0.47
2:B:306:ASP:O	2:B:311:LEU:N	2.48	0.47
2:B:870:GLU:HG3	2:B:879:VAL:HG21	1.95	0.47
2:B:1334:TRP:HB2	2:B:1343:ALA:HB2	1.96	0.47
3:H:316:VAL:HB	18:F:134:HIS:HB3	1.96	0.47
4:J:622:ALA:C	4:J:624:GLU:H	2.23	0.47
8:O:509:ILE:HG23	9:P:508:GLN:HG2	1.97	0.47
3:h:131:GLU:HA	3:h:178:PRO:HA	1.96	0.47
14:i:30:ARG:HG3	14:i:96:ASP:HB3	1.97	0.47
14:i:37:ASP:OD1	14:i:37:ASP:N	2.45	0.47
14:i:623:GLU:HA	14:i:628:THR:HG21	1.96	0.47
14:i:649:GLU:HA	14:i:652:TYR:HB2	1.96	0.47
15:C:2:ARG:HD3	15:C:292:ILE:HD12	1.96	0.47
16:D:887:TRP:CZ2	16:D:909:TYR:HD2	2.33	0.47
17:E:599:ARG:NH2	17:E:605:HIS:HA	2.29	0.47
17:E:916:LEU:HA	17:E:920:GLY:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:1340:LYS:HB2	17:E:1343:LYS:HE2	1.96	0.47
14:I:336:VAL:HG11	14:I:342:ILE:HD12	1.97	0.47
14:I:385:ASP:HB2	14:I:425:TYR:CG	2.50	0.47
18:f:367:VAL:HG13	18:f:406:VAL:HG22	1.97	0.47
20:m:331:LEU:O	20:m:335:ARG:N	2.44	0.47
1:A:631:ARG:HD2	1:A:631:ARG:HA	1.73	0.46
2:B:103:ARG:H	2:B:126:ARG:HH22	1.63	0.46
2:B:580:VAL:HG11	2:B:645:VAL:HG11	1.96	0.46
2:B:593:PHE:HB2	2:B:600:PRO:HG3	1.96	0.46
2:B:644:PHE:HE2	2:B:721:LEU:HB3	1.80	0.46
3:H:186:GLN:C	3:H:188:PRO:HD3	2.40	0.46
4:J:676:GLN:OE1	14:i:709:GLN:NE2	2.48	0.46
5:K:492:ILE:HG21	6:L:111:LEU:HB3	1.97	0.46
10:Q:104:SER:HB2	10:Q:106:GLU:HG2	1.97	0.46
14:i:259:THR:OG1	14:i:260:VAL:N	2.48	0.46
14:i:264:THR:HA	14:i:293:ALA:HA	1.97	0.46
14:i:558:LYS:HE2	14:i:558:LYS:HB2	1.39	0.46
14:i:995:GLU:HG2	14:i:1024:ARG:HH11	1.79	0.46
14:i:1023:ILE:O	14:i:1027:THR:N	2.47	0.46
14:i:1254:VAL:HA	14:i:1257:GLN:HB2	1.98	0.46
14:i:1455:SER:HA	14:i:1458:ALA:HB3	1.98	0.46
4:j:264:HIS:HA	6:l:78:ALA:HB3	1.97	0.46
4:j:558:ILE:HA	4:j:568:VAL:HA	1.97	0.46
5:k:450:TYR:HB3	6:l:72:LEU:HB3	1.97	0.46
7:n:100:LEU:HA	7:n:103:LEU:HB3	1.96	0.46
15:C:622:THR:HG21	15:C:639:ILE:HG13	1.97	0.46
16:D:235:ASN:OD1	16:D:237:ARG:NH2	2.48	0.46
16:D:241:MET:HE3	16:D:247:ASP:HA	1.97	0.46
16:D:434:ILE:HG21	16:D:502:VAL:HG11	1.97	0.46
16:D:632:LEU:HG	16:D:686:HIS:HB3	1.96	0.46
17:E:840:GLN:HB2	17:E:863:ALA:HB2	1.97	0.46
18:F:368:LYS:HG3	18:F:372:LEU:HD23	1.97	0.46
19:G:607:LEU:HD21	19:G:638:LEU:HD23	1.96	0.46
14:I:27:ASN:HD21	14:I:77:SER:HB3	1.80	0.46
14:I:80:LEU:HD12	14:I:80:LEU:HA	1.72	0.46
20:M:448:GLN:HA	20:M:451:LEU:HB3	1.97	0.46
18:f:458:ALA:HA	18:f:461:TYR:HB2	1.97	0.46
18:f:576:GLY:HA2	18:f:579:ALA:HB3	1.97	0.46
19:g:89:GLN:HA	19:g:117:LEU:HD21	1.96	0.46
1:A:595:LEU:HB3	1:A:609:LEU:HD21	1.98	0.46
1:A:1097:ASP:HA	1:A:1101:ARG:HH21	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:134:ARG:HD3	2:B:134:ARG:HA	1.73	0.46
2:B:311:LEU:HD21	2:B:346:GLN:HB2	1.97	0.46
4:J:328:ASP:HA	14:i:876:ALA:HB2	1.97	0.46
4:J:701:THR:OG1	4:J:729:ARG:NH2	2.48	0.46
5:K:503:LEU:HD23	5:K:506:ALA:HB3	1.96	0.46
9:P:637:LEU:O	9:P:641:LEU:HB2	2.15	0.46
11:R:31:GLY:HA2	11:R:128:ARG:HG3	1.98	0.46
3:h:39:ARG:HD2	3:h:40:PRO:HD2	1.97	0.46
14:i:51:ASP:HB2	14:i:97:PRO:HG3	1.97	0.46
14:i:664:LEU:HD22	4:j:646:LYS:HG2	1.96	0.46
14:i:783:PRO:HB2	14:i:810:LEU:HD23	1.97	0.46
14:i:1703:ASP:OD2	14:i:1717:ARG:NH2	2.48	0.46
14:i:1705:CYS:SG	14:i:1709:GLY:N	2.88	0.46
4:j:478:LEU:HB3	4:j:490:LEU:HB2	1.96	0.46
15:C:247:LEU:HG	15:C:255:LEU:HD12	1.98	0.46
15:C:516:MET:HA	15:C:530:LYS:HD3	1.96	0.46
15:C:872:LEU:HD12	15:C:875:ILE:HD12	1.97	0.46
18:F:300:VAL:O	18:F:304:TYR:HD2	1.99	0.46
18:F:679:CYS:HA	18:F:682:TYR:HB2	1.97	0.46
19:G:104:VAL:HG22	19:G:114:VAL:HG22	1.97	0.46
14:I:533:VAL:HG23	14:I:544:ALA:HB2	1.97	0.46
14:I:581:THR:OG1	14:I:596:LEU:O	2.32	0.46
14:I:643:ASN:HA	14:I:689:ARG:HD2	1.96	0.46
18:f:188:ASP:O	18:f:192:ALA:CB	2.64	0.46
18:f:455:THR:O	18:f:459:ASP:N	2.45	0.46
1:A:882:GLU:OE1	1:A:894:TYR:OH	2.32	0.46
1:A:920:ALA:HB2	1:A:935:ALA:HB3	1.96	0.46
1:A:1319:PHE:HE1	1:A:1336:VAL:HB	1.80	0.46
2:B:175:VAL:HG22	2:B:184:VAL:HG22	1.97	0.46
2:B:608:VAL:HG11	2:B:672:ALA:HB2	1.97	0.46
3:H:67:LYS:NZ	3:H:68:PHE:O	2.48	0.46
4:J:71:GLN:HB2	4:J:133:ARG:HD3	1.97	0.46
4:J:153:TRP:HZ3	4:J:173:LEU:HD11	1.80	0.46
9:P:483:THR:HA	9:P:486:GLU:HG2	1.97	0.46
3:h:11:ILE:HG13	3:h:38:TYR:HB3	1.97	0.46
3:h:363:PHE:O	19:g:20:ILE:HD13	2.15	0.46
3:h:394:MET:HE3	3:h:410:ALA:HA	1.97	0.46
14:i:54:LYS:HG2	14:i:61:ASN:HA	1.97	0.46
4:j:208:CYS:H	4:j:229:PRO:HA	1.80	0.46
4:j:697:LEU:HA	4:j:733:MET:SD	2.56	0.46
16:D:568:ALA:HB1	16:D:575:THR:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:834:GLY:HA2	17:E:867:ASN:H	1.79	0.46
18:F:251:ILE:HG21	18:F:255:ALA:HB3	1.96	0.46
14:I:729:ILE:HG21	14:I:747:TYR:HA	1.97	0.46
14:I:751:LEU:HD11	14:I:759:GLN:HE21	1.80	0.46
14:I:937:ARG:HH12	14:I:968:TYR:HE1	1.62	0.46
20:M:33:LEU:HD22	20:M:142:ARG:HH11	1.80	0.46
20:M:345:LEU:HD12	20:M:348:ARG:HD3	1.98	0.46
18:f:520:LEU:H	18:f:520:LEU:HG	1.52	0.46
19:g:421:MET:HE2	19:g:421:MET:HB2	1.67	0.46
1:A:452:GLN:HA	1:A:465:PRO:HA	1.98	0.46
1:A:1135:TYR:O	1:A:1139:HIS:HB2	2.15	0.46
2:B:344:GLU:HB2	2:B:636:HIS:NE2	2.30	0.46
4:J:71:GLN:NE2	4:J:113:SER:H	2.14	0.46
4:J:373:ASP:OD1	4:J:373:ASP:N	2.48	0.46
4:J:500:LEU:HD23	4:J:516:LEU:HD23	1.97	0.46
4:J:507:ALA:HB1	4:J:516:LEU:HD11	1.98	0.46
4:J:549:ASP:N	4:J:549:ASP:OD1	2.48	0.46
4:J:710:VAL:HG12	4:J:730:PHE:CE2	2.51	0.46
7:N:77:ALA:HB1	7:N:103:LEU:HD22	1.98	0.46
8:O:379:MET:HB2	9:P:372:LYS:HZ2	1.81	0.46
9:P:630:MET:O	9:P:634:LEU:CB	2.63	0.46
14:i:92:TYR:O	14:i:93:ARG:NH1	2.42	0.46
14:i:230:ASN:O	14:i:232:ARG:NH1	2.48	0.46
14:i:496:GLU:HB2	14:i:535:TRP:HD1	1.79	0.46
14:i:1204:MET:O	14:i:1205:VAL:C	2.58	0.46
14:i:1711:PRO:O	14:i:1713:GLN:NE2	2.46	0.46
4:j:545:TYR:OH	4:j:549:ASP:OD2	2.32	0.46
4:j:668:GLU:O	4:j:672:SER:N	2.48	0.46
15:C:672:PHE:HB3	15:C:703:TRP:HB2	1.96	0.46
16:D:264:ASN:HD21	16:D:268:THR:H	1.64	0.46
17:E:177:GLU:HA	17:E:180:VAL:HG12	1.97	0.46
17:E:251:ASP:OD1	17:E:251:ASP:N	2.49	0.46
17:E:351:ASN:OD1	17:E:355:ARG:NH1	2.44	0.46
17:E:1273:TRP:HB2	17:E:1296:ALA:HB2	1.97	0.46
18:F:379:ARG:NH1	18:F:384:GLU:OE2	2.44	0.46
14:I:29:SER:HA	14:I:45:GLU:HB3	1.97	0.46
14:I:339:SER:HA	14:I:361:GLU:HA	1.98	0.46
20:M:43:LYS:CD	20:M:45:PRO:HB2	2.45	0.46
18:f:557:PHE:HA	18:f:560:ALA:HB3	1.96	0.46
20:m:460:GLN:HA	20:m:463:LEU:HD23	1.96	0.46
1:A:385:LEU:HD22	1:A:426:LEU:HD13	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:503:GLY:H	1:A:533:LEU:HD11	1.80	0.46
1:A:1305:ALA:HB3	1:A:1314:ALA:HB3	1.97	0.46
2:B:907:TRP:O	2:B:911:TYR:HB3	2.16	0.46
2:B:1075:LYS:HD3	2:B:1075:LYS:HA	1.74	0.46
2:B:1205:TRP:HH2	2:B:1235:CYS:HG	1.62	0.46
3:H:63:GLY:O	3:H:64:PRO:C	2.57	0.46
3:H:106:LEU:HB3	3:H:111:MET:HG3	1.97	0.46
4:J:3:LEU:HB3	4:J:5:VAL:HG23	1.98	0.46
4:J:394:ILE:HD13	4:J:424:LEU:HD11	1.97	0.46
5:K:409:ARG:NH1	5:K:410:GLU:OE2	2.48	0.46
5:K:459:ARG:HA	5:K:459:ARG:HD2	1.83	0.46
8:O:557:ARG:O	8:O:558:LYS:C	2.59	0.46
14:i:657:ASP:O	14:i:659:ALA:N	2.48	0.46
7:n:66:LEU:O	7:n:70:ALA:N	2.47	0.46
7:n:251:LEU:HG	18:f:641:GLN:HA	1.96	0.46
16:D:48:SER:OG	16:D:644:GLN:NE2	2.46	0.46
16:D:264:ASN:CG	16:D:269:ILE:H	2.24	0.46
17:E:41:TRP:CE2	17:E:115:SER:HB2	2.51	0.46
17:E:486:ARG:HG3	17:E:490:VAL:HG23	1.97	0.46
17:E:700:ARG:HD2	17:E:732:TYR:HA	1.96	0.46
19:G:493:ALA:CB	19:G:540:VAL:HG21	2.44	0.46
14:I:751:LEU:HG	14:I:757:GLU:HG2	1.98	0.46
14:I:807:LEU:HG	14:I:822:LEU:HD23	1.97	0.46
14:I:1560:LYS:HA	14:I:1568:ALA:HB1	1.97	0.46
18:f:670:HIS:CD2	18:f:683:LEU:HB2	2.51	0.46
1:A:786:ALA:HB3	1:A:827:LEU:HD13	1.98	0.46
2:B:82:ASP:HA	2:B:105:THR:HG22	1.98	0.46
2:B:709:GLY:C	2:B:745:ASN:HD21	2.24	0.46
2:B:1211:LEU:HA	2:B:1214:HIS:HB2	1.98	0.46
3:H:419:ARG:O	3:H:423:GLN:NE2	2.48	0.46
4:J:599:ALA:HA	4:J:611:MET:HE3	1.97	0.46
8:O:449:LYS:HD3	8:O:449:LYS:HA	1.69	0.46
7:n:66:LEU:HD11	7:n:86:LEU:HD12	1.98	0.46
7:n:71:GLN:HE21	7:n:82:ASN:HA	1.80	0.46
7:n:300:ARG:HD3	7:n:300:ARG:HA	1.75	0.46
15:C:336:ALA:HB3	15:C:343:ALA:HB3	1.96	0.46
15:C:458:VAL:HA	15:C:474:ASP:HA	1.97	0.46
16:D:238:MET:HE3	16:D:238:MET:HB2	1.71	0.46
16:D:691:ARG:HA	16:D:691:ARG:HD2	1.73	0.46
16:D:1109:ALA:HA	16:D:1113:PHE:HB3	1.97	0.46
17:E:21:VAL:HB	17:E:118:LEU:HD21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:63:GLN:HG2	17:E:72:VAL:HG11	1.98	0.46
17:E:1131:ASN:HD21	17:E:1301:ASN:CG	2.23	0.46
19:G:77:TYR:HB3	19:G:80:ASN:HB2	1.98	0.46
14:I:19:ILE:HG12	14:I:310:SER:O	2.16	0.46
14:I:226:PHE:HE1	14:I:260:VAL:HG11	1.81	0.46
18:f:299:LEU:O	18:f:303:ASN:ND2	2.48	0.46
18:f:395:ARG:HE	18:f:400:THR:HG23	1.80	0.46
18:f:537:VAL:HG22	18:f:539:ASP:H	1.81	0.46
1:A:253:PHE:HE2	1:A:259:LEU:HB2	1.80	0.46
1:A:733:SER:HB2	1:A:750:LEU:HD13	1.98	0.46
1:A:1176:LEU:HB3	1:A:1185:ALA:HB2	1.97	0.46
2:B:667:CYS:HA	2:B:677:THR:HG22	1.97	0.46
2:B:942:ARG:HD3	15:C:1173:MET:HE2	1.97	0.46
3:H:243:PHE:O	3:H:247:PHE:N	2.48	0.46
4:J:79:ALA:HB3	4:J:112:TRP:HE1	1.80	0.46
4:J:622:ALA:C	4:J:624:GLU:N	2.74	0.46
4:J:685:LYS:O	4:J:688:ILE:HG22	2.15	0.46
7:N:292:LYS:HE3	18:F:306:LEU:HB3	1.98	0.46
10:Q:15:LEU:HB2	10:Q:69:VAL:HG22	1.98	0.46
13:T:99:LEU:HA	13:T:102:PHE:HD2	1.81	0.46
14:i:968:TYR:HA	14:I:991:LEU:HG	1.97	0.46
14:i:1062:LYS:HB2	14:I:1108:ASP:HB3	1.96	0.46
14:i:1219:ARG:HG2	14:I:1336:TYR:HA	1.98	0.46
4:j:241:LEU:HB3	4:j:252:LEU:HD11	1.98	0.46
7:n:227:LEU:HD13	20:m:405:MET:HA	1.98	0.46
7:n:263:GLU:HG3	20:m:438:ARG:HD2	1.97	0.46
7:n:301:ILE:HG13	7:n:302:LEU:HD22	1.97	0.46
15:C:380:LEU:HD13	15:C:389:LEU:HD23	1.97	0.46
15:C:431:VAL:HB	15:C:439:LEU:HB2	1.98	0.46
15:C:695:GLU:O	15:C:699:ARG:NH1	2.49	0.46
16:D:90:THR:HG23	16:D:100:VAL:HG22	1.98	0.46
17:E:531:GLN:O	17:E:535:LEU:CB	2.57	0.46
17:E:736:ARG:O	17:E:740:ALA:HB3	2.16	0.46
17:E:1043:ILE:HG21	17:E:1059:PHE:HE1	1.80	0.46
18:F:313:LYS:HG3	18:F:379:ARG:HG3	1.98	0.46
19:G:470:ILE:O	19:G:474:GLU:HB2	2.16	0.46
14:I:1521:TYR:HB2	14:I:1547:TYR:HE1	1.80	0.46
18:f:430:PHE:HB3	18:f:433:LYS:HB2	1.96	0.46
18:f:598:TYR:HB3	18:f:611:VAL:HG13	1.98	0.46
19:g:207:ALA:HB1	19:g:214:LEU:HB3	1.97	0.46
19:g:581:PHE:HA	19:g:638:LEU:HD11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:m:39:PHE:HB2	20:m:75:TRP:CD2	2.50	0.46
1:A:904:ALA:HB2	1:A:919:PHE:CZ	2.51	0.46
2:B:185:LYS:HG2	2:B:195:VAL:HG22	1.98	0.46
2:B:467:ALA:HB1	2:B:508:VAL:HG23	1.97	0.46
2:B:1063:MET:HA	2:B:1067:LYS:HD2	1.98	0.46
2:B:1189:GLN:H	2:B:1192:ILE:HD12	1.81	0.46
3:H:88:ILE:HB	3:H:220:VAL:HG12	1.96	0.46
4:J:28:LEU:HD21	4:J:292:VAL:HG11	1.97	0.46
4:J:193:ASP:HB3	4:J:235:TRP:H	1.80	0.46
4:J:312:VAL:O	4:J:313:ASP:C	2.59	0.46
4:J:423:THR:HG21	4:J:508:ARG:NH1	2.30	0.46
7:N:225:LYS:HE3	18:f:626:GLU:HG3	1.96	0.46
14:i:667:VAL:O	14:i:671:ALA:N	2.48	0.46
14:i:1478:PHE:HB2	14:i:1519:MET:HG3	1.97	0.46
4:j:113:SER:HB2	4:j:117:THR:H	1.81	0.46
5:k:474:LEU:HD11	6:l:94:LEU:HD22	1.97	0.46
5:k:499:LEU:HD21	6:l:121:MET:HB2	1.98	0.46
7:n:256:LEU:O	7:n:260:ARG:N	2.49	0.46
12:s:218:ILE:O	12:s:222:ILE:N	2.47	0.46
15:C:381:VAL:HB	15:C:388:ILE:HB	1.98	0.46
16:D:301:ARG:NH1	16:D:302:THR:O	2.49	0.46
16:D:596:ASN:ND2	16:D:685:SER:OG	2.47	0.46
16:D:689:LEU:HD11	16:D:693:LEU:HD12	1.96	0.46
17:E:820:ALA:HA	17:E:823:TYR:HB2	1.97	0.46
17:E:1211:GLN:HG2	17:E:1214:LYS:HB2	1.98	0.46
19:G:57:TYR:HB3	19:G:66:ALA:HB2	1.98	0.46
19:G:422:ALA:O	19:G:426:TRP:HB2	2.16	0.46
14:I:460:LYS:HZ3	14:I:483:LEU:HD11	1.81	0.46
20:m:13:LEU:HD21	20:m:104:VAL:HB	1.98	0.46
1:A:144:PRO:HB2	1:A:146:VAL:HG23	1.97	0.46
1:A:1308:PRO:CG	1:A:1340:HIS:HB3	2.46	0.46
2:B:519:ALA:HA	2:B:547:LYS:HB2	1.96	0.46
2:B:561:ASN:HD22	2:B:584:GLU:HG3	1.81	0.46
3:H:47:ASP:HB2	7:n:290:MET:HE1	1.98	0.46
3:H:112:SER:OG	3:H:184:SER:O	2.33	0.46
3:H:120:ARG:HA	3:H:132:VAL:HG11	1.98	0.46
4:J:342:LEU:HD12	4:J:360:THR:HG23	1.97	0.46
7:N:255:TYR:HA	7:N:258:ARG:HD2	1.98	0.46
8:O:561:LEU:HD13	11:R:15:MET:HE2	1.97	0.46
8:O:598:LEU:HD13	9:P:603:GLU:HG2	1.98	0.46
9:P:446:LYS:HA	9:P:449:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:h:77:LYS:HA	3:h:80:VAL:HB	1.98	0.46
3:h:187:LYS:HA	3:h:187:LYS:HD3	1.42	0.46
3:h:363:PHE:CE2	19:g:29:PHE:HA	2.51	0.46
14:i:1033:LYS:HE2	14:i:1037:ALA:HB2	1.97	0.46
14:i:1359:GLN:O	14:i:1363:GLU:N	2.44	0.46
6:l:102:GLU:HG3	6:l:106:MET:HE1	1.97	0.46
15:C:679:ALA:O	15:C:683:ALA:HB2	2.15	0.46
17:E:685:ILE:HD11	17:E:698:GLU:HB3	1.98	0.46
17:E:1105:TRP:HA	17:E:1108:GLN:HE21	1.81	0.46
17:E:1199:LEU:HD13	17:E:1222:VAL:HG22	1.98	0.46
14:I:121:TRP:HH2	14:I:143:LEU:HD21	1.80	0.46
14:I:1453:VAL:O	14:I:1457:TYR:N	2.46	0.46
14:I:1567:ILE:HA	14:I:1733:MET:HE1	1.97	0.46
20:M:452:ARG:HE	20:M:456:LEU:HG	1.81	0.46
18:f:562:LYS:O	18:f:566:LEU:N	2.47	0.46
18:f:662:ALA:O	18:f:666:TYR:N	2.42	0.46
1:A:173:VAL:HG23	1:A:189:LEU:HD11	1.98	0.46
1:A:728:ASP:O	1:A:729:ARG:C	2.59	0.46
3:H:343:LEU:HD13	19:G:314:ASN:HA	1.98	0.46
4:J:564:ASN:HD21	4:J:584:PRO:HG2	1.81	0.46
8:O:502:ILE:O	8:O:506:GLU:HB2	2.16	0.46
8:O:561:LEU:HG	9:P:561:ASN:HB3	1.97	0.46
11:R:12:LEU:HB3	11:R:50:ARG:HE	1.81	0.46
3:h:301:ASP:C	3:h:303:SER:N	2.74	0.46
14:i:1125:TYR:HA	14:i:1128:GLU:HB2	1.97	0.46
7:n:110:LYS:NZ	7:n:114:MET:SD	2.81	0.46
15:C:225:LEU:H	15:C:240:GLY:HA2	1.81	0.46
15:C:341:LYS:HG3	15:C:400:PHE:HZ	1.80	0.46
15:C:381:VAL:O	15:C:388:ILE:N	2.37	0.46
15:C:643:GLN:OE1	15:C:645:ARG:NH2	2.49	0.46
16:D:887:TRP:CG	16:D:925:LEU:HB3	2.51	0.46
16:D:1075:ALA:HB1	16:D:1078:ASN:ND2	2.31	0.46
17:E:1234:GLU:HB3	17:E:1237:ARG:HH21	1.81	0.46
17:E:1307:VAL:HG12	17:E:1334:ALA:HB2	1.98	0.46
18:F:237:TYR:HB3	18:F:241:ILE:HG23	1.97	0.46
18:F:250:GLN:HG2	18:F:258:VAL:HG21	1.96	0.46
19:G:50:LEU:HD22	19:G:69:MET:HB2	1.97	0.46
14:I:138:VAL:O	14:I:151:CYS:N	2.49	0.46
20:M:312:GLU:HG2	20:M:316:HIS:NE2	2.31	0.46
18:f:679:CYS:O	18:f:683:LEU:N	2.48	0.46
1:A:69:GLN:HE22	1:A:114:MET:H	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:399:ASP:OD1	2:B:399:ASP:N	2.46	0.45
2:B:497:ASP:O	2:B:501:GLY:N	2.48	0.45
3:H:64:PRO:HD2	3:H:102:ILE:CD1	2.47	0.45
3:H:175:TYR:OH	3:H:194:SER:O	2.28	0.45
7:N:260:ARG:HH21	20:M:434:ASP:HB3	1.81	0.45
12:S:318:MET:HE3	12:S:318:MET:HB3	1.87	0.45
3:h:54:ARG:HA	3:h:79:PHE:HE1	1.82	0.45
14:i:649:GLU:HG2	14:i:663:PHE:HB2	1.98	0.45
14:i:689:ARG:HA	14:i:689:ARG:HD2	1.33	0.45
14:i:1521:TYR:HB2	14:i:1547:TYR:CE1	2.51	0.45
4:j:481:ILE:HG23	4:j:485:ARG:HA	1.97	0.45
4:j:602:LEU:HD22	5:k:496:ASP:HB3	1.98	0.45
15:C:1070:MET:HE1	15:C:1074:ARG:HH21	1.80	0.45
16:D:608:MET:CB	16:D:620:VAL:HG12	2.47	0.45
17:E:495:LEU:O	17:E:496:GLN:C	2.59	0.45
17:E:553:LYS:HZ1	17:E:878:GLN:HG3	1.81	0.45
17:E:1096:LEU:HD11	17:E:1116:ILE:HD11	1.98	0.45
18:F:197:MET:HE3	18:F:197:MET:HB3	1.81	0.45
18:F:477:VAL:HG13	18:F:496:PHE:HE1	1.81	0.45
19:G:118:LEU:HB3	19:G:134:GLN:CG	2.44	0.45
19:G:231:SER:O	19:G:232:GLN:C	2.58	0.45
14:I:72:ALA:HB3	14:I:121:TRP:N	2.31	0.45
14:I:836:TYR:HD1	14:I:841:ALA:HB3	1.81	0.45
14:I:962:GLN:O	14:I:966:ARG:NE	2.43	0.45
20:M:77:LEU:O	20:M:81:GLY:N	2.44	0.45
18:f:451:LEU:HD23	20:m:446:LEU:HD13	1.98	0.45
18:f:519:ARG:HA	18:f:519:ARG:HD3	1.76	0.45
19:g:54:GLY:HA2	19:g:69:MET:HE1	1.97	0.45
19:g:180:LEU:HD13	19:g:202:GLU:HG3	1.97	0.45
2:B:45:GLY:HA3	2:B:377:VAL:HG21	1.98	0.45
2:B:114:SER:OG	2:B:116:ASP:OD1	2.34	0.45
2:B:128:SER:OG	2:B:130:TRP:NE1	2.50	0.45
4:J:441:VAL:N	4:J:456:TRP:O	2.48	0.45
4:J:532:GLU:HB2	4:J:540:LEU:HD13	1.97	0.45
7:N:222:ARG:HD2	20:M:401:VAL:HG21	1.98	0.45
7:N:289:LYS:HD2	7:N:289:LYS:HA	1.61	0.45
8:O:605:MET:SD	9:P:610:ARG:HG3	2.55	0.45
10:Q:34:SER:O	10:Q:38:SER:CB	2.64	0.45
3:h:338:THR:N	3:h:339:PRO:HD2	2.32	0.45
14:i:889:LYS:HA	14:i:892:LYS:HB2	1.99	0.45
14:i:1734:TRP:NE1	14:i:1752:ALA:O	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:j:79:ALA:N	4:j:112:TRP:HE1	2.13	0.45
15:C:349:LYS:HD3	15:C:370:LYS:HD3	1.98	0.45
15:C:632:GLU:HA	15:C:635:LEU:HD12	1.98	0.45
16:D:320:LEU:O	16:D:335:VAL:N	2.50	0.45
17:E:282:LEU:HD22	17:E:317:ILE:HA	1.98	0.45
17:E:1140:ALA:O	17:E:1144:ALA:CB	2.64	0.45
17:E:1163:VAL:O	17:E:1166:SER:HB2	2.16	0.45
18:F:256:LYS:O	18:F:257:GLU:C	2.60	0.45
14:I:744:LYS:HA	14:I:747:TYR:HB3	1.99	0.45
14:I:856:GLU:O	14:I:860:ILE:HG13	2.16	0.45
19:g:237:THR:HB	19:g:239:LEU:HD23	1.97	0.45
20:m:332:GLU:HA	20:m:335:ARG:HB3	1.97	0.45
1:A:335:ILE:HG12	1:A:351:THR:HG22	1.98	0.45
2:B:984:LYS:O	2:B:986:TYR:N	2.49	0.45
3:H:270:LYS:O	3:H:271:LEU:HB2	2.15	0.45
3:H:274:ASP:HB3	7:N:265:LEU:HD12	1.98	0.45
3:H:304:LEU:CD1	18:F:268:LEU:HB2	2.46	0.45
4:J:310:THR:HG22	4:J:312:VAL:HG13	1.98	0.45
4:J:529:TYR:HB3	4:J:532:GLU:HG2	1.99	0.45
4:J:599:ALA:HB1	4:J:615:LEU:HD12	1.98	0.45
4:J:709:THR:HA	4:J:744:VAL:HG13	1.97	0.45
5:K:460:LEU:HD13	6:L:83:ARG:HG2	1.98	0.45
12:S:221:TRP:HD1	12:S:225:ILE:HG13	1.82	0.45
13:T:70:TYR:O	13:T:73:TYR:HB2	2.15	0.45
3:h:274:ASP:HB3	18:f:542:GLU:HB2	1.98	0.45
3:h:329:LEU:CG	19:g:548:LYS:HB3	2.47	0.45
14:i:446:ALA:HB1	14:i:461:LEU:HD22	1.98	0.45
14:i:1359:GLN:HA	14:i:1378:TYR:HE1	1.81	0.45
14:i:1713:GLN:HB2	14:i:1716:ASP:HB2	1.99	0.45
4:j:396:ILE:HG22	4:j:404:ILE:HD12	1.97	0.45
15:C:322:GLN:HG2	15:C:363:MET:HE2	1.99	0.45
15:C:1122:ARG:HA	15:C:1125:LEU:HB2	1.98	0.45
16:D:178:PRO:HA	16:D:208:LYS:HB2	1.97	0.45
16:D:735:ARG:HA	16:D:735:ARG:HD3	1.78	0.45
16:D:1075:ALA:HB1	16:D:1078:ASN:HD22	1.81	0.45
17:E:1151:VAL:HG22	17:E:1160:ARG:HH12	1.82	0.45
18:F:385:GLY:O	18:F:389:TRP:N	2.46	0.45
19:g:287:MET:HG3	19:g:321:LYS:HE3	1.98	0.45
1:A:269:VAL:HB	1:A:282:HIS:HB3	1.99	0.45
1:A:446:ILE:HG13	1:A:455:VAL:HG22	1.98	0.45
1:A:1155:LYS:HD3	1:A:1156:PRO:HD2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:392:TYR:HD2	12:S:298:LEU:HD23	1.81	0.45
4:J:459:THR:OG1	4:J:482:ASP:OD2	2.33	0.45
4:J:750:GLU:HG3	4:J:751:GLU:HG2	1.98	0.45
6:L:66:LYS:HB3	6:L:66:LYS:HE3	1.42	0.45
6:L:73:ARG:HH22	7:N:14:LYS:HD3	1.81	0.45
7:N:161:ARG:HD2	7:N:161:ARG:HA	1.66	0.45
7:N:266:GLU:O	7:N:270:GLU:HG3	2.16	0.45
12:S:246:ILE:HG22	12:S:307:GLU:HB2	1.99	0.45
3:h:357:PRO:HA	19:g:235:LYS:H	1.82	0.45
14:i:376:ARG:NH2	14:i:397:ASP:OD1	2.49	0.45
14:i:836:TYR:HB2	14:i:845:ALA:HB2	1.99	0.45
14:i:938:TYR:O	14:i:942:ALA:N	2.48	0.45
6:l:110:SER:HA	6:l:113:LYS:HB2	1.99	0.45
7:n:43:VAL:HG22	7:n:100:LEU:HD23	1.98	0.45
15:C:148:ALA:HB3	15:C:192:THR:HG22	1.98	0.45
15:C:816:LYS:HA	15:C:816:LYS:HD2	1.76	0.45
15:C:938:PRO:O	15:C:939:PRO:C	2.59	0.45
16:D:1110:MET:SD	17:E:851:ARG:HG3	2.56	0.45
17:E:682:LYS:HA	17:E:685:ILE:HG22	1.98	0.45
17:E:967:HIS:O	17:E:970:SER:OG	2.31	0.45
18:F:370:ALA:O	18:F:374:SER:N	2.46	0.45
18:F:506:CYS:HB3	18:F:509:ALA:HB3	1.98	0.45
14:I:19:ILE:HD11	14:I:313:GLY:HA2	1.97	0.45
14:I:306:MET:O	14:I:317:MET:HA	2.16	0.45
14:I:1051:LEU:HA	14:I:1054:ALA:HB3	1.98	0.45
20:M:20:ASP:OD1	20:M:20:ASP:N	2.50	0.45
18:f:241:ILE:O	18:f:245:ARG:NH1	2.49	0.45
19:g:473:TYR:O	19:g:477:VAL:HG23	2.17	0.45
19:g:559:ILE:C	19:g:561:SER:H	2.25	0.45
1:A:432:LYS:HZ3	1:A:434:VAL:HA	1.81	0.45
2:B:434:LEU:O	2:B:445:TYR:N	2.38	0.45
2:B:718:ARG:HA	2:B:721:LEU:HD12	1.98	0.45
2:B:1144:VAL:O	2:B:1148:GLN:N	2.49	0.45
4:J:341:SER:O	4:J:347:LEU:HA	2.16	0.45
9:P:595:TYR:HD1	10:Q:81:LEU:HD11	1.82	0.45
9:P:619:THR:O	9:P:623:GLY:N	2.50	0.45
9:P:641:LEU:HD23	9:P:645:ARG:HH21	1.81	0.45
11:R:13:VAL:H	11:R:29:LEU:HD11	1.81	0.45
14:i:152:TYR:HB3	14:i:196:SER:HB3	1.98	0.45
6:l:113:LYS:O	6:l:117:GLU:N	2.32	0.45
15:C:935:ARG:HH21	15:C:1024:GLY:HA2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:602:MET:O	16:D:609:TYR:N	2.49	0.45
16:D:764:MET:HE2	16:D:764:MET:HB2	1.75	0.45
16:D:764:MET:HA	16:D:767:ARG:HB2	1.98	0.45
16:D:777:LEU:HD12	16:D:780:GLU:HB3	1.97	0.45
17:E:231:LEU:HD22	17:E:234:LEU:HB2	1.99	0.45
19:G:112:LYS:H	19:G:112:LYS:HG3	1.65	0.45
19:G:204:ILE:HG23	19:G:218:SER:HB3	1.98	0.45
19:G:320:CYS:HA	19:G:357:ILE:HD11	1.98	0.45
14:I:1630:GLU:HB3	14:I:1641:TYR:HE1	1.81	0.45
20:M:62:SER:O	20:M:66:PHE:CB	2.63	0.45
18:f:384:GLU:HG3	18:f:387:PHE:H	1.81	0.45
19:g:539:LEU:HD22	19:g:576:TYR:HD1	1.80	0.45
1:A:529:GLY:O	1:A:547:ASP:N	2.38	0.45
1:A:541:ARG:HH12	1:A:598:PRO:HB3	1.82	0.45
2:B:1157:LYS:HE2	14:i:1670:ARG:HH22	1.82	0.45
2:B:1179:LYS:O	2:B:1183:PHE:HB2	2.15	0.45
3:H:270:LYS:HD2	3:H:271:LEU:HD12	1.99	0.45
4:J:243:ALA:CB	4:J:276:TRP:HE1	2.29	0.45
4:J:413:ARG:HB2	4:J:432:LEU:HD23	1.97	0.45
5:K:478:ILE:HG12	6:L:101:LEU:HD22	1.99	0.45
7:N:7:ARG:HD3	7:N:10:THR:HB	1.98	0.45
8:O:461:GLN:HG3	9:P:473:LYS:HG3	1.98	0.45
3:h:131:GLU:HG3	3:h:178:PRO:HB3	1.99	0.45
3:h:389:LEU:HD13	12:s:295:VAL:HG22	1.98	0.45
14:i:69:ARG:HH21	14:i:207:TYR:HA	1.82	0.45
14:i:823:TYR:HA	14:i:826:MET:HB2	1.98	0.45
14:i:1274:GLN:HE22	14:i:1294:GLY:HA2	1.82	0.45
14:i:1277:GLY:N	14:I:1339:HIS:O	2.49	0.45
4:j:422:ILE:HA	4:j:465:ILE:HD11	1.99	0.45
4:j:460:LEU:HD23	4:j:483:ARG:HB3	1.98	0.45
12:s:206:ARG:NH1	19:g:83:TYR:HB2	2.32	0.45
15:C:239:SER:HB3	15:C:245:VAL:HG22	1.99	0.45
15:C:462:ASP:HB2	15:C:471:ALA:HB3	1.99	0.45
15:C:1008:PRO:HD3	15:C:1019:LEU:O	2.17	0.45
16:D:348:LEU:H	16:D:365:TRP:HE3	1.62	0.45
18:F:129:MET:HE2	18:F:129:MET:HB2	1.75	0.45
18:F:136:LEU:HD13	18:F:158:GLU:HB3	1.98	0.45
18:F:599:GLN:HG2	18:F:638:ILE:HD11	1.97	0.45
19:G:535:CYS:HB3	19:G:561:SER:OG	2.16	0.45
14:I:78:THR:O	14:I:94:LEU:N	2.43	0.45
14:I:223:ARG:NH2	14:I:233:GLU:OE1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:1210:VAL:HG22	14:I:1229:PHE:CE1	2.52	0.45
14:I:1576:LEU:HD21	14:I:1588:ALA:HB3	1.98	0.45
18:f:163:GLU:CG	18:f:183:LEU:HD13	2.40	0.45
19:g:477:VAL:HG13	19:g:492:LEU:HD22	1.97	0.45
19:g:496:CYS:HB3	19:g:541:ILE:HG12	1.99	0.45
20:m:408:LYS:HA	20:m:408:LYS:HD3	1.46	0.45
1:A:936:TYR:HB3	1:A:945:VAL:HG22	1.98	0.45
1:A:1136:ARG:HD2	1:A:1136:ARG:HA	1.77	0.45
2:B:888:LYS:O	2:B:892:LEU:N	2.34	0.45
3:H:111:MET:HB3	3:H:185:VAL:HG12	1.99	0.45
13:T:10:VAL:HB	13:T:63:ASP:HA	1.98	0.45
14:i:168:ASN:HD21	14:i:171:ASN:HB2	1.81	0.45
4:j:646:LYS:HD3	4:j:646:LYS:HA	1.70	0.45
7:n:79:MET:HE1	7:n:100:LEU:HD22	1.98	0.45
12:s:206:ARG:H	19:g:80:ASN:HD21	1.64	0.45
15:C:701:ALA:HA	15:C:713:ALA:HA	1.97	0.45
16:D:11:ILE:HG13	16:D:17:LEU:HD21	1.97	0.45
16:D:933:MET:HE3	17:E:715:VAL:HG22	1.98	0.45
16:D:1088:PHE:O	16:D:1092:GLU:N	2.48	0.45
17:E:110:CYS:HA	17:E:129:LEU:HD12	1.99	0.45
17:E:113:LEU:HB2	17:E:129:LEU:HG	1.97	0.45
17:E:1159:GLN:HE21	17:E:1230:ASP:HA	1.80	0.45
18:F:306:LEU:HG	18:F:306:LEU:O	2.17	0.45
18:F:666:TYR:HA	18:F:669:ILE:HG12	1.98	0.45
19:G:21:TYR:HA	19:G:24:ILE:HD12	1.99	0.45
19:G:545:TYR:HE2	19:G:557:ARG:HH12	1.65	0.45
14:I:343:VAL:HB	14:I:352:ILE:HG23	1.99	0.45
14:I:860:ILE:O	14:I:864:TRP:HD1	2.00	0.45
14:I:958:TRP:HE1	14:I:996:LYS:HB3	1.81	0.45
14:I:1565:LYS:HB3	14:I:1599:ALA:HB2	1.98	0.45
14:I:1630:GLU:HB3	14:I:1641:TYR:CE1	2.51	0.45
18:f:250:GLN:HG2	18:f:251:ILE:HG23	1.98	0.45
18:f:294:GLN:N	18:f:365:LEU:HD21	2.32	0.45
1:A:1139:HIS:HA	1:A:1142:LEU:HD12	1.98	0.45
4:J:271:ILE:HG21	4:J:274:LEU:HD13	1.98	0.45
4:J:409:PHE:HB3	4:J:444:PHE:CD1	2.52	0.45
7:N:45:ARG:HG2	7:N:108:THR:HG21	1.97	0.45
8:O:501:LYS:HA	8:O:504:THR:HG22	1.98	0.45
13:T:45:ILE:HG23	13:T:60:GLN:HB3	1.97	0.45
14:i:181:ILE:HG22	14:i:199:LEU:HD12	1.99	0.45
14:i:228:ASP:OD1	14:i:232:ARG:N	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:327:TYR:HB3	14:i:331:PHE:HB2	1.99	0.45
14:i:974:MET:HA	14:i:977:PHE:HB2	1.99	0.45
4:j:36:THR:HG22	4:j:52:THR:HG23	1.99	0.45
4:j:590:MET:O	4:j:595:GLN:N	2.49	0.45
4:j:654:GLU:HG2	4:j:673:ILE:HD12	1.98	0.45
6:l:45:GLN:O	6:l:49:ASP:N	2.49	0.45
7:n:12:VAL:HG21	7:n:42:LEU:CB	2.46	0.45
7:n:113:ASP:O	7:n:117:ASP:N	2.41	0.45
16:D:338:ASP:OD1	16:D:338:ASP:N	2.50	0.45
16:D:523:LEU:HD23	16:D:523:LEU:HA	1.67	0.45
17:E:1084:ARG:HG2	17:E:1116:ILE:HB	1.99	0.45
19:G:203:ILE:HA	19:G:206:LYS:HE3	1.98	0.45
14:I:28:ASN:HB3	14:I:351:ARG:HH22	1.82	0.45
14:I:434:CYS:HB2	14:I:463:TYR:CZ	2.51	0.45
14:I:837:ARG:NH2	14:I:860:ILE:HG12	2.30	0.45
14:I:1139:THR:O	14:I:1144:LYS:HA	2.17	0.45
20:M:416:THR:HB	20:M:418:VAL:HG12	1.98	0.45
18:f:288:ASP:OD1	18:f:288:ASP:N	2.50	0.45
19:g:227:SER:HB2	19:g:268:PRO:HD2	1.99	0.45
19:g:381:LEU:O	19:g:385:THR:N	2.35	0.45
1:A:964:ARG:NH2	1:A:990:GLU:OE1	2.48	0.45
2:B:321:VAL:HG11	2:B:358:MET:HE3	1.99	0.45
2:B:746:PRO:HA	2:B:749:TRP:HB2	1.97	0.45
2:B:945:LYS:HD3	2:B:945:LYS:HA	1.75	0.45
3:H:109:PHE:CE2	3:H:218:ILE:HG13	2.52	0.45
4:J:547:LYS:HE3	4:J:550:SER:HB3	1.98	0.45
7:N:243:ARG:HH12	18:F:677:VAL:HB	1.82	0.45
8:O:608:PHE:CZ	8:O:612:LYS:HD3	2.52	0.45
10:Q:124:ASP:HB3	10:Q:127:ARG:HG3	1.98	0.45
13:T:163:ALA:O	13:T:167:LEU:HB2	2.17	0.45
14:i:657:ASP:C	14:i:659:ALA:H	2.24	0.45
14:i:1289:ILE:H	14:i:1289:ILE:HD12	1.82	0.45
14:i:1334:ILE:HG12	14:i:1341:MET:HE1	1.99	0.45
4:j:231:THR:HB	4:j:272:MET:HB3	1.98	0.45
4:j:431:VAL:N	4:j:442:ARG:O	2.49	0.45
4:j:576:VAL:HG21	6:l:92:ARG:HB3	1.99	0.45
4:j:714:ARG:NH2	4:j:724:ALA:O	2.49	0.45
15:C:575:TYR:HB2	15:C:602:VAL:HG22	1.99	0.45
15:C:896:LEU:HD23	15:C:899:ARG:HD2	1.98	0.45
15:C:939:PRO:HB2	15:C:940:ARG:HE	1.82	0.45
16:D:876:ARG:HA	16:D:879:ASP:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:94:LEU:HA	17:E:97:LYS:HE3	1.99	0.45
17:E:1278:GLN:HB3	17:E:1279:ILE:H	1.61	0.45
18:F:248:LEU:HD23	18:F:258:VAL:HG12	1.99	0.45
14:I:1241:MET:HA	14:I:1244:ASP:HB2	1.99	0.45
20:M:317:LYS:HA	20:M:320:ILE:HG22	1.97	0.45
1:A:541:ARG:HH22	1:A:598:PRO:HB3	1.82	0.45
1:A:1186:ALA:HB2	1:A:1213:GLU:HB2	1.99	0.45
2:B:550:LYS:HE2	2:B:574:ARG:HH22	1.81	0.45
2:B:775:ALA:O	2:B:776:ARG:C	2.60	0.45
3:H:362:LEU:HD13	3:H:362:LEU:HA	1.66	0.45
8:O:634:VAL:HA	8:O:637:LYS:HB2	1.99	0.45
9:P:513:ARG:NE	15:C:1002:ASP:O	2.50	0.45
12:S:229:HIS:CD2	12:S:233:PRO:HA	2.51	0.45
12:S:232:LYS:H	12:S:232:LYS:HG2	1.67	0.45
13:T:52:LEU:HD11	13:T:171:PHE:HB3	1.99	0.45
14:i:82:ILE:O	14:i:90:PHE:N	2.50	0.45
14:i:645:LEU:HD12	14:i:668:VAL:HB	1.99	0.45
14:i:700:PRO:O	14:i:704:SER:OG	2.27	0.45
4:j:707:GLN:HB2	4:j:737:VAL:CG1	2.47	0.45
6:l:68:LYS:O	6:l:72:LEU:N	2.49	0.45
7:n:103:LEU:O	7:n:106:LYS:HB3	2.16	0.45
12:s:206:ARG:HE	12:s:206:ARG:HB2	1.68	0.45
15:C:341:LYS:NZ	15:C:384:SER:O	2.44	0.45
15:C:342:LEU:HB3	15:C:353:TYR:HB2	1.99	0.45
16:D:2:PHE:O	16:D:336:ARG:N	2.49	0.45
16:D:120:VAL:H	16:D:138:GLU:HB2	1.81	0.45
16:D:393:ALA:O	16:D:402:HIS:ND1	2.46	0.45
16:D:765:ARG:HD2	16:D:773:LYS:HB3	1.98	0.45
17:E:1093:LEU:O	17:E:1097:ASN:HB2	2.16	0.45
18:F:189:PHE:O	18:F:193:HIS:HB2	2.17	0.45
19:G:341:ALA:O	19:G:345:LEU:HB2	2.17	0.45
19:G:638:LEU:HA	19:G:641:MET:HE2	1.99	0.45
14:I:110:PHE:HB3	14:I:148:SER:HB2	1.99	0.45
14:I:125:ARG:NH1	14:I:169:GLY:O	2.49	0.45
14:I:1429:ALA:HA	14:I:1432:MET:HG2	1.98	0.45
14:I:1586:ASP:HA	14:I:1589:PHE:HB2	1.98	0.45
14:I:1597:TYR:HD2	14:I:1598:GLU:HG3	1.82	0.45
18:f:301:MET:O	18:f:304:TYR:HB3	2.17	0.45
18:f:464:MET:SD	18:f:465:ALA:N	2.90	0.45
18:f:585:HIS:C	18:f:587:ARG:N	2.74	0.45
20:m:455:ARG:HA	20:m:458:GLN:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1139:HIS:NE2	1:A:1168:HIS:HB2	2.31	0.44
2:B:715:ASP:OD1	2:B:718:ARG:NH1	2.50	0.44
3:H:98:ALA:HB2	3:H:102:ILE:HD13	1.99	0.44
10:Q:182:ILE:HA	10:Q:185:THR:HG22	1.98	0.44
11:R:57:VAL:HG21	11:R:112:LEU:HD11	1.99	0.44
14:i:427:ARG:HH22	14:i:448:VAL:HG11	1.82	0.44
14:i:602:TYR:HE2	14:i:615:ALA:HA	1.81	0.44
14:i:868:LEU:O	14:i:872:LYS:N	2.48	0.44
14:i:937:ARG:HA	14:i:937:ARG:HD2	1.81	0.44
4:j:89:ILE:HB	4:j:98:LYS:HB2	1.99	0.44
4:j:467:LEU:HA	4:j:478:LEU:HA	1.99	0.44
15:C:278:ALA:HA	15:C:288:MET:HG3	1.99	0.44
15:C:307:ARG:HD3	15:C:332:VAL:HB	2.00	0.44
15:C:930:ARG:O	15:C:934:MET:HG3	2.17	0.44
16:D:352:PHE:HA	16:D:643:MET:HG3	2.00	0.44
17:E:1192:ASP:N	17:E:1192:ASP:OD1	2.49	0.44
18:F:223:LEU:O	18:F:227:MET:HG3	2.17	0.44
18:F:237:TYR:O	18:F:238:PRO:C	2.59	0.44
19:G:508:ALA:HA	19:G:511:LEU:CG	2.46	0.44
14:I:1586:ASP:HB3	14:I:1615:LEU:HB2	1.98	0.44
19:g:47:ARG:HG3	19:g:50:LEU:HD12	1.99	0.44
19:g:351:ASP:HA	19:g:354:GLN:HB3	1.98	0.44
19:g:446:SER:O	19:g:451:TRP:NE1	2.30	0.44
1:A:205:GLY:O	1:A:209:ARG:NH2	2.44	0.44
1:A:1135:TYR:HA	1:A:1167:LEU:HD13	1.99	0.44
2:B:500:HIS:O	2:B:517:THR:HG23	2.18	0.44
2:B:625:ASN:O	2:B:629:ARG:NE	2.51	0.44
2:B:938:HIS:CB	2:B:947:ALA:HB2	2.46	0.44
4:J:233:VAL:HA	4:J:243:ALA:O	2.17	0.44
4:J:403:GLN:NE2	4:j:548:SER:OG	2.50	0.44
4:J:413:ARG:NH2	4:J:434:GLN:O	2.50	0.44
4:J:659:GLU:HG3	4:J:686:LEU:HD11	1.98	0.44
6:L:124:LYS:HE3	14:I:778:LEU:HD13	1.99	0.44
7:N:111:ALA:C	7:N:113:ASP:H	2.26	0.44
7:N:202:LEU:HA	7:N:205:ASN:HD21	1.81	0.44
11:R:86:VAL:HG11	11:R:107:ILE:HD13	1.99	0.44
4:j:128:VAL:O	4:j:141:LEU:N	2.50	0.44
4:j:479:ILE:HG22	4:j:489:LEU:HD23	1.99	0.44
4:j:710:VAL:HB	4:j:733:MET:HE2	1.99	0.44
4:j:727:ILE:HD12	4:j:730:PHE:CD2	2.53	0.44
7:n:152:ASP:HA	20:m:331:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:n:300:ARG:HH22	18:f:275:GLN:HB3	1.83	0.44
12:s:206:ARG:NH2	19:g:80:ASN:OD1	2.35	0.44
15:C:321:GLU:OE2	16:D:357:ARG:NH2	2.50	0.44
15:C:510:CYS:SG	15:C:511:TYR:N	2.90	0.44
16:D:1019:GLY:HA2	16:D:1023:ALA:HB2	1.99	0.44
17:E:210:LEU:CD1	17:E:239:GLN:HB3	2.47	0.44
19:G:87:TYR:CZ	19:G:91:LEU:HD11	2.53	0.44
14:I:187:PRO:HD3	14:I:194:PRO:HB3	1.98	0.44
14:I:628:THR:HA	14:I:631:GLN:HG2	1.99	0.44
14:I:991:LEU:O	14:I:995:GLU:N	2.46	0.44
14:I:1008:LYS:O	14:I:1012:MET:HG3	2.18	0.44
14:I:1362:GLY:HA3	14:I:1378:TYR:CE1	2.51	0.44
18:f:563:TRP:HA	18:f:566:LEU:HB3	1.98	0.44
20:m:350:LYS:HB3	20:m:353:ASN:HB3	1.99	0.44
1:A:102:ILE:HG23	1:A:142:LYS:HE2	1.99	0.44
1:A:437:ARG:NH2	1:A:478:ASP:OD2	2.50	0.44
2:B:705:THR:HA	2:B:708:GLN:HB2	1.99	0.44
2:B:1093:LEU:HD13	2:B:1101:ARG:HG2	1.99	0.44
3:H:12:LEU:HA	3:H:41:ASP:O	2.18	0.44
3:H:156:ASP:HB2	18:F:638:ILE:O	2.16	0.44
3:H:285:CYS:HB2	18:F:474:ARG:HE	1.82	0.44
4:J:398:THR:HG23	4:J:401:GLY:H	1.83	0.44
4:J:721:ALA:HB1	14:I:650:ARG:HG3	1.99	0.44
6:L:103:ARG:NH1	6:L:107:GLU:HB2	2.33	0.44
7:N:299:LEU:C	7:N:301:ILE:N	2.74	0.44
10:Q:202:ARG:NH1	11:R:34:ASN:OD1	2.50	0.44
12:S:252:GLU:HB2	12:S:313:ILE:HG22	1.99	0.44
3:h:221:LEU:HD21	3:h:244:PHE:HE2	1.83	0.44
14:i:183:LYS:O	14:i:196:SER:OG	2.33	0.44
14:i:1398:SER:HB3	14:i:1421:ARG:HH22	1.82	0.44
15:C:832:GLN:NE2	15:C:866:GLN:OE1	2.46	0.44
15:C:1114:PRO:O	15:C:1116:THR:HG22	2.17	0.44
16:D:186:ASP:HB3	16:D:244:GLU:HG2	1.98	0.44
17:E:359:ALA:HA	17:E:362:LEU:HB2	1.99	0.44
18:F:247:ALA:HB3	18:F:262:ILE:HD13	1.98	0.44
14:I:98:ASP:OD1	14:I:98:ASP:N	2.51	0.44
14:I:1231:LYS:HA	14:I:1231:LYS:HD2	1.79	0.44
20:M:17:THR:HB	20:M:22:CYS:HB3	1.98	0.44
19:g:111:GLN:HA	19:g:114:VAL:HB	2.00	0.44
1:A:216:LEU:HB2	1:A:224:TYR:HB2	1.98	0.44
1:A:387:ASP:O	1:A:391:ARG:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:495:LEU:HD11	1:A:514:SER:HB2	1.98	0.44
1:A:770:TRP:HE3	1:A:788:ILE:HG23	1.81	0.44
1:A:1204:VAL:HA	1:A:1207:LEU:HD12	1.99	0.44
2:B:218:VAL:HG12	2:B:255:LEU:HD21	1.98	0.44
2:B:497:ASP:HB2	2:B:500:HIS:CD2	2.52	0.44
2:B:756:CYS:HA	2:B:761:ARG:HB2	2.00	0.44
2:B:1205:TRP:HH2	2:B:1235:CYS:SG	2.40	0.44
2:B:1232:TYR:HA	2:B:1235:CYS:SG	2.57	0.44
4:J:53:LEU:HD12	4:J:90:LEU:HD13	1.98	0.44
4:J:334:ARG:HH22	4:J:368:ILE:HG21	1.81	0.44
4:J:389:ASP:OD1	4:J:389:ASP:N	2.51	0.44
5:K:459:ARG:NH2	5:K:463:GLU:OE2	2.50	0.44
7:N:143:ILE:HG12	17:E:594:SER:HB3	1.99	0.44
7:N:292:LYS:CE	18:F:306:LEU:HD22	2.47	0.44
9:P:411:ILE:O	9:P:415:MET:HG2	2.18	0.44
9:P:616:ILE:HA	9:P:619:THR:HG22	1.98	0.44
10:Q:13:ALA:O	10:Q:67:VAL:HA	2.17	0.44
10:Q:52:GLY:H	10:Q:77:ALA:HB2	1.81	0.44
3:h:329:LEU:HG	19:g:548:LYS:HB3	1.98	0.44
14:i:30:ARG:HE	14:i:96:ASP:H	1.66	0.44
14:i:483:LEU:HD22	14:i:518:LEU:HD23	1.99	0.44
14:i:611:ASP:OD1	14:i:611:ASP:N	2.50	0.44
14:i:624:LEU:HD23	4:j:666:LYS:HD2	1.99	0.44
4:j:103:HIS:CE1	4:j:129:LYS:H	2.36	0.44
4:j:654:GLU:CD	4:j:673:ILE:HB	2.42	0.44
6:l:22:ASP:HB3	7:n:151:TYR:CG	2.53	0.44
15:C:395:LEU:HD11	15:C:417:ILE:HD11	2.00	0.44
15:C:404:LYS:HD2	15:C:407:GLU:HB2	1.99	0.44
15:C:487:LYS:HD3	15:C:487:LYS:HA	1.75	0.44
16:D:557:GLY:O	16:D:586:ASP:N	2.48	0.44
16:D:626:LEU:HD22	16:D:634:ILE:HG21	1.99	0.44
16:D:701:LEU:HD22	16:D:734:GLN:HB3	1.99	0.44
16:D:967:ILE:HA	16:D:970:PHE:HB2	2.00	0.44
17:E:1273:TRP:O	17:E:1274:GLU:C	2.59	0.44
18:F:438:LYS:HB3	18:F:464:MET:HE1	2.00	0.44
18:F:632:PHE:O	18:F:636:SER:HB3	2.18	0.44
19:G:153:MET:HB3	19:G:158:LYS:HB2	2.00	0.44
14:I:383:MET:HG3	14:I:425:TYR:HE1	1.81	0.44
14:I:492:VAL:HG11	14:I:495:LEU:HD23	2.00	0.44
14:I:1114:LYS:HA	14:I:1119:LEU:HD13	1.99	0.44
14:I:1151:HIS:HD2	14:I:1173:SER:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:M:23:MET:HE3	20:M:27:ALA:HB2	1.99	0.44
18:f:205:LEU:HD21	18:f:230:ILE:HB	1.98	0.44
2:B:320:ARG:HE	2:B:322:MET:HG3	1.82	0.44
2:B:402:VAL:HA	2:B:415:GLY:O	2.18	0.44
2:B:437:TRP:CD2	2:B:466:MET:HB3	2.52	0.44
2:B:438:ASP:N	2:B:438:ASP:OD1	2.51	0.44
2:B:551:VAL:HG22	2:B:567:VAL:HG12	2.00	0.44
2:B:1144:VAL:HA	2:B:1147:ARG:HG3	1.99	0.44
4:J:646:LYS:HE2	4:J:689:LYS:HE2	2.00	0.44
5:K:449:MET:H	5:K:449:MET:HG3	1.53	0.44
7:N:105:TYR:O	7:N:106:LYS:HB2	2.18	0.44
7:N:249:ASN:HB3	20:M:427:GLN:HG3	1.98	0.44
12:S:287:ASP:OD1	12:S:287:ASP:N	2.46	0.44
13:T:84:LEU:N	13:T:116:GLN:O	2.42	0.44
3:h:31:PHE:O	3:h:32:ARG:NH1	2.45	0.44
3:h:94:GLY:H	3:h:181:ALA:HA	1.83	0.44
3:h:140:ASN:O	3:h:144:ILE:N	2.49	0.44
6:l:64:ALA:O	6:l:68:LYS:N	2.44	0.44
12:s:246:ILE:HD12	12:s:249:LEU:HD12	1.99	0.44
15:C:354:GLU:HG3	15:C:368:ALA:HB3	1.98	0.44
15:C:646:TYR:CE1	16:D:715:ASP:HA	2.53	0.44
15:C:913:VAL:HG23	15:C:914:HIS:H	1.82	0.44
16:D:315:TRP:CG	16:D:322:LEU:HD12	2.53	0.44
16:D:508:VAL:HG23	16:D:520:ARG:HG3	1.98	0.44
16:D:969:LYS:HB2	18:F:627:LYS:HE3	2.00	0.44
17:E:292:LYS:HD2	17:E:292:LYS:HA	1.81	0.44
17:E:1293:TYR:CD2	17:E:1311:LEU:HB2	2.53	0.44
19:G:609:GLU:O	19:G:613:HIS:N	2.49	0.44
14:I:390:LYS:HB3	14:I:425:TYR:HB3	1.99	0.44
14:I:946:ARG:HB2	14:I:973:GLU:HB3	1.99	0.44
14:I:1548:LEU:CD2	14:I:1706:VAL:HA	2.47	0.44
20:M:419:ALA:HA	18:f:587:ARG:HG2	2.00	0.44
19:g:426:TRP:HE1	19:g:463:ASP:H	1.63	0.44
19:g:511:LEU:HA	19:g:514:LYS:HE3	1.98	0.44
1:A:68:ALA:HB2	1:A:84:ALA:HA	2.00	0.44
1:A:879:GLU:O	1:A:883:ARG:HG2	2.17	0.44
1:A:973:ASN:OD1	1:A:997:GLN:NE2	2.47	0.44
2:B:70:HIS:HE1	2:B:115:GLY:HA3	1.83	0.44
2:B:268:ALA:HB2	2:B:275:VAL:HG23	1.99	0.44
2:B:503:PRO:HB2	2:B:506:MET:HB2	2.00	0.44
2:B:912:LEU:HD22	2:B:917:GLU:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:ASN:HA	2:B:960:SER:HB3	2.00	0.44
2:B:986:TYR:HD2	2:B:1009:SER:HA	1.83	0.44
3:H:204:ARG:NH1	3:H:265:ASP:OD1	2.51	0.44
6:L:70:ILE:HD13	7:N:15:ALA:HA	2.00	0.44
6:L:108:GLU:O	6:L:112:ILE:HG13	2.17	0.44
7:N:26:ASN:ND2	7:N:38:CYS:SG	2.91	0.44
3:h:65:LYS:HD3	3:h:65:LYS:HA	1.79	0.44
14:i:250:THR:HG21	14:i:294:VAL:HG12	1.99	0.44
14:i:900:PHE:HD1	14:i:900:PHE:HA	1.73	0.44
14:i:1095:GLN:HA	14:i:1098:TYR:CZ	2.52	0.44
5:k:413:GLN:HG3	5:k:414:LYS:HD3	2.00	0.44
7:n:285:ARG:HD2	7:n:285:ARG:HA	1.72	0.44
15:C:969:ARG:HD2	15:C:1000:PHE:HD1	1.83	0.44
16:D:544:ASN:HA	16:D:592:TRP:HB2	1.99	0.44
17:E:37:VAL:HB	17:E:112:HIS:HB2	2.00	0.44
17:E:1047:ARG:HB2	17:E:1055:VAL:HG22	1.99	0.44
18:F:287:MET:O	18:F:288:ASP:C	2.60	0.44
19:G:226:ARG:HA	19:G:267:PRO:HB3	2.00	0.44
19:G:370:PHE:HA	19:G:373:LEU:HG	2.00	0.44
19:G:466:TYR:CZ	19:G:501:MET:HE3	2.53	0.44
14:I:783:PRO:HB2	14:I:810:LEU:CG	2.41	0.44
14:I:939:TYR:HB3	14:I:944:MET:O	2.17	0.44
14:I:996:LYS:HA	14:I:996:LYS:HD2	1.87	0.44
18:f:354:GLU:HB3	19:g:640:LYS:HB2	2.00	0.44
19:g:354:GLN:O	19:g:358:GLY:N	2.50	0.44
1:A:405:PHE:CZ	1:A:443:ILE:HD12	2.53	0.44
1:A:1335:PRO:O	1:A:1336:VAL:C	2.61	0.44
2:B:204:HIS:H	2:B:219:GLY:HA2	1.83	0.44
2:B:385:TYR:CD1	2:B:668:ILE:HG22	2.52	0.44
2:B:1054:ASP:OD1	2:B:1054:ASP:N	2.51	0.44
3:H:329:LEU:CD2	18:F:177:ASP:HB3	2.40	0.44
4:J:113:SER:CB	4:J:117:THR:H	2.30	0.44
4:J:596:TRP:CE2	5:K:503:LEU:HD13	2.52	0.44
7:N:293:ARG:HA	7:N:296:GLU:HB3	1.99	0.44
11:R:2:LYS:NZ	11:R:9:ASN:O	2.45	0.44
14:i:76:ASP:OD1	14:i:76:ASP:N	2.46	0.44
14:i:93:ARG:HD3	14:i:93:ARG:HA	1.70	0.44
14:i:891:ILE:O	14:i:895:ILE:N	2.50	0.44
14:i:1432:MET:N	14:i:1432:MET:SD	2.91	0.44
14:i:1734:TRP:CD1	14:i:1754:MET:H	2.36	0.44
15:C:165:ARG:HG2	15:C:171:GLU:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C:313:VAL:HB	15:C:328:CYS:SG	2.58	0.44
16:D:125:LYS:HG3	16:D:166:TRP:HE1	1.82	0.44
16:D:560:THR:HG22	16:D:581:SER:HA	2.00	0.44
16:D:1069:SER:O	16:D:1072:ALA:HB3	2.18	0.44
17:E:1272:ALA:HB1	17:E:1276:MET:SD	2.57	0.44
18:F:523:LEU:HA	18:F:526:ALA:HB3	2.00	0.44
18:F:602:HIS:HB2	18:F:611:VAL:HG11	2.00	0.44
19:G:509:GLU:HA	19:G:512:MET:HG2	1.99	0.44
19:G:531:CYS:HB2	19:G:535:CYS:HB2	1.55	0.44
14:I:69:ARG:NH1	14:I:117:THR:HA	2.32	0.44
14:I:158:SER:HB2	14:I:177:MET:H	1.83	0.44
14:I:568:LYS:HE2	14:I:568:LYS:HB2	1.87	0.44
14:I:878:ILE:HG23	14:I:890:ALA:HB1	1.99	0.44
14:I:1055:GLU:OE2	14:I:1082:ARG:NH1	2.51	0.44
18:f:154:GLU:O	18:f:158:GLU:HB2	2.17	0.44
1:A:308:ASN:ND2	1:A:309:CYS:SG	2.91	0.44
1:A:689:ARG:O	1:A:693:LEU:HG	2.18	0.44
1:A:836:ALA:HB1	1:A:852:ALA:HA	2.00	0.44
2:B:618:THR:HG23	2:B:638:VAL:HG22	2.00	0.44
2:B:788:GLU:HG2	2:B:816:ARG:HD3	1.98	0.44
3:H:178:PRO:HG2	3:H:226:MET:HG2	2.00	0.44
3:H:186:GLN:H	3:H:186:GLN:HG2	1.52	0.44
3:H:272:LEU:HA	18:F:573:ASN:HB2	1.98	0.44
3:H:413:VAL:HA	3:H:416:GLU:HB2	1.99	0.44
4:J:22:TRP:NE1	4:J:284:ALA:HB3	2.33	0.44
4:J:611:MET:HA	4:J:614:THR:HG22	2.00	0.44
8:O:484:THR:OG1	15:C:1099:GLU:OE2	2.29	0.44
9:P:498:ILE:HD12	9:P:498:ILE:HA	1.84	0.44
9:P:510:LYS:HA	9:P:513:ARG:HH22	1.83	0.44
11:R:71:ALA:O	11:R:114:PHE:HA	2.17	0.44
13:T:5:GLY:HA2	13:T:58:LYS:O	2.18	0.44
3:h:189:ALA:HA	3:h:210:TRP:HA	1.98	0.44
3:h:296:TRP:N	3:h:296:TRP:CD1	2.85	0.44
14:i:62:ASN:ND2	14:i:66:TYR:OH	2.51	0.44
14:i:1262:LYS:HA	14:i:1265:GLU:HB3	2.00	0.44
14:i:1566:ASP:N	14:i:1566:ASP:OD1	2.51	0.44
4:j:129:LYS:HB3	4:j:137:LEU:HD11	1.99	0.44
4:j:598:LYS:NZ	4:j:602:LEU:HB3	2.32	0.44
5:k:488:MET:HG3	6:l:108:GLU:HA	2.00	0.44
6:l:113:LYS:HD2	6:l:113:LYS:HA	1.76	0.44
15:C:915:SER:O	15:C:917:PHE:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:52:LYS:HG3	16:D:653:PHE:HA	1.98	0.44
16:D:509:LEU:HD23	16:D:511:ILE:HD11	2.00	0.44
16:D:521:TYR:HB3	16:D:526:LEU:HA	2.00	0.44
16:D:788:LEU:HG	16:D:792:HIS:CE1	2.53	0.44
16:D:838:MET:HE2	16:D:851:ILE:HB	2.00	0.44
17:E:1094:LYS:HA	17:E:1094:LYS:HD2	1.79	0.44
18:F:267:GLY:O	18:F:298:ASN:ND2	2.51	0.44
19:G:205:GLU:HB2	19:G:219:ASN:HD22	1.82	0.44
14:I:506:PHE:CE2	14:I:514:HIS:HB2	2.52	0.44
14:I:926:TYR:O	14:I:931:ALA:N	2.51	0.44
14:I:1718:VAL:HB	14:I:1729:ALA:HB3	2.00	0.44
20:m:426:LYS:HA	20:m:429:ASN:HB3	2.00	0.44
2:B:9:ILE:HB	2:B:375:ILE:HB	1.99	0.44
2:B:279:ASN:ND2	2:B:281:ASP:H	2.16	0.44
2:B:1239:GLU:HA	2:B:1243:TYR:HB2	2.00	0.44
3:H:17:LYS:HD3	3:H:48:PHE:CE2	2.53	0.44
3:H:182:THR:HG21	3:H:204:ARG:HH21	1.83	0.44
4:J:436:ALA:HB3	4:J:440:THR:CB	2.37	0.44
6:L:22:ASP:N	6:L:22:ASP:OD1	2.51	0.44
10:Q:54:GLU:H	10:Q:75:ASP:HB3	1.83	0.44
3:h:80:VAL:O	3:h:216:GLY:N	2.51	0.44
3:h:166:GLN:NE2	18:f:626:GLU:OE2	2.51	0.44
14:i:690:ALA:HB2	14:i:706:LEU:HD22	1.99	0.44
14:i:858:ILE:HG23	14:i:859:ILE:HG23	1.99	0.44
14:i:1163:ARG:O	14:i:1164:PHE:C	2.61	0.44
14:i:1249:ASN:ND2	14:i:1287:ALA:HB1	2.31	0.44
4:j:306:LYS:HA	5:k:479:LYS:HE2	1.99	0.44
6:l:49:ASP:O	6:l:52:VAL:HB	2.18	0.44
15:C:235:TYR:HB3	15:C:247:LEU:HD11	2.00	0.44
15:C:538:PHE:HE1	15:C:543:ILE:HA	1.83	0.44
15:C:543:ILE:H	16:D:376:TYR:HE2	1.66	0.44
15:C:666:PHE:HD2	15:C:675:ALA:HB2	1.83	0.44
15:C:937:LEU:HB2	15:C:940:ARG:CZ	2.48	0.44
17:E:39:THR:OG1	17:E:42:ARG:NH2	2.45	0.44
17:E:129:LEU:HD13	17:E:132:ARG:HD3	2.00	0.44
17:E:808:ALA:O	17:E:812:VAL:HG23	2.18	0.44
18:F:424:VAL:HA	18:F:427:PHE:HB2	1.99	0.44
18:F:537:VAL:HG23	18:F:543:VAL:HG21	2.00	0.44
19:G:512:MET:O	19:G:516:GLU:N	2.44	0.44
14:I:443:LEU:HB3	14:I:464:LEU:HD12	1.99	0.44
14:I:1391:ALA:O	14:I:1392:GLY:C	2.61	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:1603:ASN:N	14:I:1671:SER:O	2.51	0.44
20:M:84:LEU:HD21	20:M:103:ALA:HB2	1.99	0.44
18:f:235:LYS:HA	18:f:235:LYS:HD2	1.44	0.44
18:f:488:ASP:O	18:f:492:ALA:N	2.41	0.44
19:g:63:TYR:HB3	19:g:90:SER:HB3	2.00	0.44
1:A:574:MET:HB2	1:A:622:THR:HA	1.99	0.43
1:A:840:LEU:HD22	1:A:868:LEU:HD11	2.00	0.43
1:A:879:GLU:HB3	1:A:883:ARG:NH1	2.33	0.43
1:A:1117:GLU:HA	1:A:1120:ARG:HB2	2.00	0.43
1:A:1316:ALA:O	1:A:1320:ILE:HG12	2.17	0.43
2:B:642:ILE:O	2:B:654:GLN:N	2.50	0.43
2:B:1053:PHE:O	2:B:1057:GLN:N	2.39	0.43
2:B:1322:ARG:O	2:B:1325:ASP:N	2.50	0.43
3:H:204:ARG:HB2	3:H:265:ASP:H	1.82	0.43
4:J:113:SER:HA	4:J:153:TRP:CD2	2.53	0.43
7:N:9:PHE:HD2	7:N:28:ARG:HH12	1.65	0.43
7:N:66:LEU:HA	7:N:69:VAL:HG22	2.00	0.43
9:P:466:LEU:O	9:P:467:GLU:C	2.61	0.43
13:T:9:ALA:HB3	13:T:84:LEU:HD12	1.99	0.43
3:h:305:PHE:O	18:f:222:TRP:NE1	2.51	0.43
14:i:640:LEU:HD12	14:i:692:MET:HG3	2.00	0.43
14:i:1274:GLN:HG2	14:i:1278:GLY:CA	2.47	0.43
14:i:1345:VAL:HG11	14:i:1368:ILE:HG21	2.00	0.43
4:j:596:TRP:H	5:k:504:ALA:HB1	1.83	0.43
12:s:209:HIS:HB2	19:g:86:TYR:CE1	2.53	0.43
15:C:12:PRO:O	15:C:40:ARG:NH2	2.51	0.43
15:C:330:ASP:HB3	15:C:347:GLN:CB	2.46	0.43
15:C:417:ILE:HD12	15:C:431:VAL:HG13	1.99	0.43
15:C:620:ASN:O	15:C:624:ALA:CB	2.66	0.43
15:C:1136:ARG:HH21	15:C:1146:GLN:HG3	1.83	0.43
16:D:1076:PHE:CZ	16:D:1108:LEU:HD23	2.53	0.43
17:E:295:GLU:HG2	17:E:299:ARG:HH12	1.83	0.43
14:I:380:THR:OG1	14:I:394:ILE:O	2.35	0.43
14:I:774:ILE:HG23	14:I:786:ALA:HB1	2.00	0.43
14:I:1416:ASP:O	14:I:1420:SER:OG	2.32	0.43
14:I:1418:LEU:O	14:I:1425:HIS:NE2	2.44	0.43
18:f:129:MET:HG2	18:f:162:ASN:HD22	1.82	0.43
19:g:312:PHE:CD2	19:g:340:TYR:HD2	2.26	0.43
19:g:375:THR:HA	19:g:378:VAL:HG22	1.99	0.43
20:m:136:ASP:HA	20:m:139:LEU:HB2	1.98	0.43
2:B:270:GLU:O	2:B:299:ARG:NE	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:419:LEU:HD13	2:B:424:LEU:HD13	2.00	0.43
4:J:308:GLN:HE22	5:K:479:LYS:HD2	1.83	0.43
4:J:408:ARG:N	4:J:449:GLY:HA3	2.33	0.43
4:J:529:TYR:CZ	4:J:531:SER:HB2	2.53	0.43
7:N:13:MET:O	7:N:20:ARG:NH1	2.51	0.43
13:T:117:CYS:HB3	13:T:144:LEU:HD13	1.99	0.43
14:i:1508:ARG:HH22	14:i:1557:ALA:HB2	1.83	0.43
4:j:127:SER:HA	4:j:144:ALA:H	1.83	0.43
4:j:704:LYS:HD3	4:j:704:LYS:HA	1.69	0.43
7:n:202:LEU:HD23	20:m:380:LYS:HG3	2.00	0.43
16:D:171:ARG:HD2	16:D:171:ARG:HA	1.87	0.43
16:D:404:LEU:HD23	16:D:404:LEU:HA	1.88	0.43
16:D:739:ALA:HB2	16:D:751:LEU:HD12	2.00	0.43
16:D:920:MET:HE1	16:D:962:LEU:HD21	1.99	0.43
18:F:385:GLY:HA2	18:F:388:MET:HB2	2.00	0.43
18:F:629:MET:HE3	18:F:633:ASP:HB3	2.00	0.43
18:F:685:HIS:HD2	18:F:686:LEU:HG	1.83	0.43
19:G:282:SER:O	19:G:285:ILE:HG22	2.17	0.43
14:I:1017:LYS:HD3	14:I:1048:GLU:HG2	2.00	0.43
14:I:1658:ASP:O	14:I:1662:LEU:HG	2.18	0.43
18:f:408:LEU:HD21	18:f:441:ALA:HA	1.99	0.43
1:A:159:ASN:HB3	1:A:214:TYR:CZ	2.53	0.43
1:A:1156:PRO:HB3	1:A:1160:LEU:HD23	2.00	0.43
2:B:483:VAL:O	2:B:491:LYS:N	2.50	0.43
2:B:718:ARG:H	2:B:718:ARG:HG3	1.48	0.43
4:J:166:SER:OG	4:J:185:HIS:O	2.36	0.43
7:N:12:VAL:O	7:N:16:LEU:HB2	2.18	0.43
12:S:230:LYS:H	12:S:230:LYS:HG2	1.53	0.43
3:h:395:GLU:HA	3:h:398:HIS:HB2	2.00	0.43
14:i:210:GLY:O	14:i:215:ILE:HA	2.17	0.43
14:i:456:SER:OG	14:i:500:ARG:NH1	2.51	0.43
14:i:1108:ASP:O	14:i:1112:LEU:N	2.52	0.43
14:i:1540:THR:O	14:i:1544:GLN:N	2.44	0.43
4:j:632:PHE:HE2	4:j:644:VAL:HG23	1.83	0.43
7:n:145:LYS:HE2	20:m:323:ALA:HA	2.00	0.43
15:C:24:LEU:HD11	15:C:280:GLY:HA3	2.01	0.43
16:D:163:LEU:HD12	16:D:176:ALA:HB3	2.01	0.43
17:E:149:TRP:HZ2	17:E:222:PRO:HB3	1.83	0.43
18:F:307:SER:HA	18:F:380:ALA:N	2.32	0.43
18:F:443:THR:HA	18:F:446:ALA:HB3	1.99	0.43
19:G:353:LEU:O	19:G:357:ILE:HB	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:183:LYS:HB2	14:I:199:LEU:HD22	2.00	0.43
14:I:273:PHE:HA	14:I:280:TRP:HA	2.00	0.43
14:I:1209:LEU:O	14:I:1213:ALA:N	2.48	0.43
18:f:243:MET:HE3	18:f:243:MET:HB2	1.86	0.43
18:f:404:ASN:ND2	18:f:437:VAL:O	2.50	0.43
1:A:687:SER:O	1:A:691:LEU:HB3	2.18	0.43
1:A:778:GLU:HA	1:A:785:ILE:HD11	1.99	0.43
1:A:1304:TRP:CG	1:A:1347:PRO:HB3	2.53	0.43
2:B:925:TYR:O	2:B:929:GLY:N	2.50	0.43
2:B:1205:TRP:HB3	2:B:1211:LEU:HD23	2.01	0.43
2:B:1219:TYR:HA	2:B:1222:ALA:HB3	2.01	0.43
3:H:72:GLU:O	3:H:76:LEU:HB2	2.17	0.43
4:J:173:LEU:HD23	4:J:173:LEU:HA	1.82	0.43
9:P:620:HIS:O	9:P:624:LEU:N	2.30	0.43
11:R:92:ALA:O	11:R:99:GLN:NE2	2.51	0.43
3:h:114:ASN:OD1	3:h:204:ARG:NH2	2.50	0.43
3:h:123:HIS:O	20:m:427:GLN:NE2	2.50	0.43
3:h:328:GLN:HB3	18:f:127:ARG:NE	2.34	0.43
14:i:385:ASP:HB2	14:i:390:LYS:HB2	2.00	0.43
14:i:421:HIS:CE1	14:i:430:VAL:HG13	2.54	0.43
14:i:1288:VAL:O	14:i:1292:ALA:N	2.51	0.43
4:j:22:TRP:CD1	4:j:275:SER:HB2	2.53	0.43
4:j:338:ILE:HG22	4:j:339:LYS:HG2	2.00	0.43
4:j:479:ILE:HD13	4:j:516:LEU:HD12	2.00	0.43
7:n:161:ARG:HG3	7:n:162:GLU:HG3	2.01	0.43
15:C:1175:ALA:HB1	15:C:1188:VAL:HG22	2.00	0.43
16:D:549:LYS:HA	16:D:563:ASP:HA	1.99	0.43
16:D:681:VAL:HG23	16:D:690:TRP:CE3	2.54	0.43
17:E:318:THR:O	17:E:322:ALA:N	2.46	0.43
17:E:603:LEU:HD23	17:E:603:LEU:HA	1.88	0.43
18:F:308:ASP:C	18:F:310:GLU:H	2.26	0.43
18:F:637:LYS:O	18:F:638:ILE:C	2.61	0.43
19:G:207:ALA:HB3	19:G:239:LEU:HD21	1.99	0.43
14:I:420:LEU:HB3	14:I:434:CYS:SG	2.59	0.43
14:I:693:ALA:HB3	14:I:722:ASN:ND2	2.32	0.43
14:I:1222:TRP:HA	14:I:1225:ALA:HB3	1.99	0.43
14:I:1594:LEU:HD21	14:I:1659:VAL:HG22	2.01	0.43
20:M:36:GLU:HG3	20:M:49:PRO:HB3	1.99	0.43
18:f:127:ARG:NH1	18:f:131:LYS:HG3	2.34	0.43
18:f:629:MET:HE1	18:f:658:ASN:HB2	2.01	0.43
20:m:44:LYS:HD2	20:m:44:LYS:HA	1.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:36:LYS:HD3	1:A:38:ASN:HD21	1.82	0.43
1:A:449:ASN:ND2	1:A:514:SER:OG	2.52	0.43
1:A:899:ASN:C	1:A:901:ALA:N	2.76	0.43
2:B:27:SER:OG	2:B:43:GLU:HA	2.18	0.43
2:B:717:THR:HA	2:B:743:ILE:HD13	2.01	0.43
2:B:935:VAL:HG21	2:B:959:ALA:HB1	1.99	0.43
3:H:78:LYS:HA	3:H:81:LYS:HG2	2.00	0.43
3:H:305:PHE:H	18:F:264:ARG:CD	2.27	0.43
4:J:471:GLY:HA3	4:J:514:ALA:HB2	2.00	0.43
4:J:569:ARG:HA	4:J:575:LEU:HD22	2.01	0.43
9:P:443:LEU:O	9:P:446:LYS:HG3	2.19	0.43
12:S:271:VAL:HG23	12:S:332:GLY:HA2	2.01	0.43
13:T:96:GLU:HA	13:T:99:LEU:HD12	2.00	0.43
3:h:88:ILE:HG22	3:h:220:VAL:HG12	2.00	0.43
3:h:363:PHE:CD2	19:g:24:ILE:HD12	2.54	0.43
14:i:1171:PHE:CD1	14:i:1179:GLU:HB3	2.53	0.43
14:i:1519:MET:HE3	14:i:1519:MET:HB3	1.78	0.43
14:i:1702:TYR:CE2	14:i:1711:PRO:HB3	2.53	0.43
14:i:1718:VAL:HG22	14:i:1754:MET:HB3	2.00	0.43
4:j:104:LYS:HD3	4:j:104:LYS:HA	1.72	0.43
4:j:348:ILE:HG21	4:j:385:PHE:CZ	2.54	0.43
4:j:509:TRP:CE3	4:j:516:LEU:HD11	2.54	0.43
5:k:454:LEU:HB2	6:l:75:ARG:HD3	2.00	0.43
6:l:120:LEU:HD12	6:l:120:LEU:HA	1.80	0.43
16:D:303:LEU:HD23	16:D:324:LEU:HD21	2.00	0.43
17:E:301:ALA:HB2	17:E:321:MET:HE1	2.01	0.43
17:E:315:LEU:O	17:E:319:TYR:N	2.47	0.43
17:E:671:ARG:HD3	17:E:700:ARG:HB2	1.99	0.43
17:E:709:ALA:HB3	17:E:718:ALA:HA	2.00	0.43
17:E:1164:LEU:HA	17:E:1167:TYR:HB2	2.00	0.43
19:G:532:PHE:C	19:G:534:LEU:H	2.27	0.43
14:I:702:SER:HB2	14:I:719:TYR:OH	2.19	0.43
14:I:920:ARG:HA	14:I:920:ARG:HD2	1.81	0.43
18:f:530:PHE:HD2	18:f:546:GLN:HE22	1.65	0.43
19:g:35:HIS:CE1	19:g:52:LEU:HD22	2.50	0.43
19:g:284:LEU:HA	19:g:287:MET:HE2	2.00	0.43
19:g:501:MET:HE1	19:g:548:LYS:HZ1	1.83	0.43
19:g:561:SER:OG	19:g:576:TYR:HB3	2.19	0.43
1:A:170:ASP:OD1	1:A:172:THR:OG1	2.35	0.43
1:A:670:TYR:OH	1:A:697:ASP:OD2	2.34	0.43
1:A:862:LYS:HG2	2:B:738:ARG:HE	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:158:LEU:HB3	2:B:229:ARG:NH1	2.34	0.43
2:B:293:ASP:OD2	2:B:320:ARG:NH1	2.40	0.43
2:B:562:LEU:HA	2:B:581:TRP:O	2.19	0.43
3:H:80:VAL:HG11	3:H:109:PHE:HZ	1.82	0.43
3:H:275:THR:HG23	18:F:541:VAL:HB	2.01	0.43
4:J:1:MET:N	4:J:261:SER:HB3	2.33	0.43
4:J:547:LYS:HD2	6:L:103:ARG:NH2	2.33	0.43
8:O:561:LEU:HD21	9:P:562:GLU:CG	2.43	0.43
9:P:525:LYS:HD2	9:P:525:LYS:HA	1.54	0.43
12:S:249:LEU:HB3	12:S:307:GLU:HG3	2.01	0.43
13:T:107:ALA:O	13:T:111:ASN:N	2.52	0.43
14:i:214:CYS:SG	14:i:226:PHE:HB3	2.59	0.43
14:i:1067:ALA:HB3	14:i:1083:VAL:HG11	2.00	0.43
14:i:1205:VAL:O	14:i:1206:SER:C	2.61	0.43
14:i:1365:HIS:O	14:i:1370:ASP:N	2.49	0.43
4:j:425:SER:HB2	4:j:467:LEU:HD13	2.00	0.43
4:j:515:MET:HB3	4:j:561:PHE:HE2	1.83	0.43
15:C:583:THR:HB	16:D:651:LEU:HA	2.00	0.43
16:D:375:LYS:HD3	16:D:392:LEU:HD11	2.00	0.43
16:D:490:ASN:ND2	16:D:491:MET:O	2.51	0.43
16:D:546:ASN:HD21	16:D:595:ASP:HA	1.83	0.43
16:D:642:ILE:HD11	16:D:654:MET:HE1	2.01	0.43
16:D:887:TRP:HE1	16:D:913:LEU:CD1	2.24	0.43
16:D:973:ARG:HD2	18:F:631:PHE:HB3	1.99	0.43
17:E:654:THR:HG22	17:E:655:LEU:H	1.83	0.43
14:I:5:TYR:HA	14:I:318:TYR:HD1	1.83	0.43
14:I:175:GLY:HA2	14:I:206:PRO:HG2	2.01	0.43
14:I:398:SER:HB2	14:I:400:GLY:H	1.84	0.43
14:I:579:HIS:CD2	14:I:614:ARG:HD3	2.53	0.43
14:I:726:GLU:HG2	14:I:727:ASP:N	2.32	0.43
14:I:1239:LEU:HD11	14:I:1255:ALA:HB2	2.00	0.43
18:f:129:MET:HB2	18:f:169:PHE:HE2	1.82	0.43
19:g:228:VAL:O	19:g:269:ARG:NH2	2.51	0.43
1:A:39:ILE:O	1:A:47:TYR:N	2.44	0.43
1:A:490:ILE:HG12	1:A:502:THR:HB	2.00	0.43
1:A:557:VAL:HB	15:C:976:GLN:HE21	1.83	0.43
2:B:20:SER:HB2	2:B:28:LEU:H	1.83	0.43
2:B:127:ILE:HG13	2:B:144:TYR:HD1	1.83	0.43
2:B:1200:LEU:HD23	2:B:1203:LEU:HD12	2.01	0.43
2:B:1323:ILE:HB	2:B:1355:ILE:CD1	2.49	0.43
8:O:511:LEU:HA	8:O:514:THR:HG22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Q:61:THR:HA	10:Q:68:SER:HA	1.99	0.43
10:Q:86:ILE:HG13	10:Q:90:TRP:CE2	2.54	0.43
11:R:65:LEU:HD12	11:R:127:ASN:HD21	1.84	0.43
4:j:198:ASN:HD22	4:j:235:TRP:HZ2	1.66	0.43
4:j:353:THR:HG22	4:j:354:GLN:HE21	1.84	0.43
4:j:637:GLU:H	4:j:640:LYS:HB2	1.84	0.43
4:j:644:VAL:HG11	4:j:656:ARG:C	2.44	0.43
15:C:457:SER:O	15:C:475:GLU:N	2.52	0.43
15:C:541:SER:HB3	15:C:557:PRO:CA	2.45	0.43
15:C:701:ALA:N	15:C:716:MET:SD	2.91	0.43
15:C:750:ASP:H	15:C:754:LEU:HD12	1.83	0.43
16:D:395:LYS:HB3	16:D:399:PRO:HA	2.01	0.43
17:E:150:ILE:HA	17:E:153:SER:HB3	1.99	0.43
17:E:371:ALA:HB1	17:E:439:LEU:HD22	2.01	0.43
17:E:1354:LYS:HB3	17:E:1355:PRO:HD2	2.01	0.43
19:G:482:ASP:OD1	19:G:482:ASP:N	2.52	0.43
14:I:1271:LEU:HD23	14:I:1271:LEU:HA	1.73	0.43
14:I:1395:PRO:O	14:I:1399:ARG:CB	2.66	0.43
20:M:39:PHE:HE2	20:M:50:LEU:HD21	1.84	0.43
20:M:366:ALA:O	20:M:370:PHE:HB3	2.18	0.43
19:g:484:LEU:HD22	19:g:492:LEU:HD11	2.01	0.43
19:g:538:ASN:N	19:g:538:ASN:OD1	2.52	0.43
2:B:598:ARG:HA	2:B:619:PRO:HA	2.00	0.43
2:B:1228:LEU:HA	2:B:1231:PHE:HB3	2.00	0.43
4:J:624:GLU:HB3	4:J:627:THR:HB	2.00	0.43
12:S:308:PHE:HA	12:S:314:PHE:HD2	1.84	0.43
13:T:167:LEU:HD23	13:T:167:LEU:HA	1.81	0.43
14:i:209:LEU:HA	14:i:216:ALA:O	2.19	0.43
4:j:6:LYS:N	4:j:294:PHE:O	2.49	0.43
4:j:561:PHE:HE1	4:j:580:THR:HG21	1.84	0.43
4:j:600:THR:HG21	4:j:635:ILE:HD13	2.01	0.43
4:j:652:THR:HA	4:j:763:ARG:HA	2.01	0.43
7:n:27:PHE:CE2	7:n:97:LEU:HD22	2.53	0.43
12:s:249:LEU:HD13	12:s:304:LEU:HD13	2.01	0.43
15:C:51:LEU:HD12	15:C:51:LEU:HA	1.81	0.43
15:C:422:GLY:HA3	15:C:423:PRO:HD3	1.89	0.43
15:C:437:ALA:HA	15:C:454:HIS:H	1.84	0.43
16:D:177:THR:HG22	16:D:180:GLY:H	1.83	0.43
16:D:223:GLU:HG3	16:D:225:ASN:H	1.84	0.43
16:D:882:VAL:HA	16:D:886:GLN:O	2.18	0.43
16:D:894:ALA:O	16:D:898:ASN:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:582:LEU:HA	19:G:585:ILE:HD12	2.00	0.43
14:I:500:ARG:NH1	14:I:540:ASP:OD2	2.52	0.43
14:I:1205:VAL:O	14:I:1209:LEU:HB2	2.19	0.43
14:I:1384:TRP:HZ3	14:I:1404:GLN:HB3	1.84	0.43
18:f:368:LYS:HD2	18:f:368:LYS:HA	1.53	0.43
18:f:523:LEU:HA	18:f:526:ALA:HB3	1.99	0.43
1:A:360:LEU:HD12	1:A:360:LEU:HA	1.92	0.43
1:A:731:LEU:HD12	1:A:751:PHE:CE1	2.54	0.43
1:A:1223:ALA:O	1:A:1227:ALA:HB3	2.18	0.43
2:B:74:PRO:HB2	2:B:90:ALA:HB3	2.00	0.43
2:B:437:TRP:CE3	2:B:466:MET:HB3	2.54	0.43
2:B:913:GLU:HB2	2:B:937:ILE:HD11	1.99	0.43
2:B:1076:CYS:HA	2:B:1079:PHE:HB3	2.01	0.43
4:J:615:LEU:HD21	4:J:631:ALA:HB1	1.99	0.43
9:P:613:GLN:HB3	9:P:614:ARG:NH2	2.34	0.43
10:Q:27:VAL:HA	10:Q:137:LYS:HE3	2.01	0.43
3:h:326:LYS:HE2	3:h:326:LYS:HB3	1.88	0.43
14:i:137:LYS:HG3	14:i:139:ARG:HD2	2.01	0.43
14:i:277:ARG:HE	14:i:279:ASP:HB2	1.83	0.43
14:i:396:TRP:CZ2	14:i:416:TYR:HB3	2.53	0.43
14:i:1081:LEU:HD13	14:i:1096:VAL:HB	2.00	0.43
14:i:1178:LYS:O	14:i:1182:ASP:N	2.51	0.43
14:i:1613:LEU:HG	14:i:1663:VAL:HG21	2.00	0.43
4:j:678:GLY:HA3	4:j:682:ARG:HD3	2.01	0.43
15:C:556:VAL:CG1	15:C:580:LEU:HB3	2.48	0.43
15:C:740:ILE:HA	15:C:743:VAL:HG12	2.01	0.43
15:C:936:LEU:HD13	15:C:948:VAL:HG23	2.00	0.43
16:D:11:ILE:HG21	16:D:17:LEU:HD21	1.99	0.43
16:D:438:ASP:OD1	16:D:438:ASP:N	2.49	0.43
16:D:625:TYR:H	16:D:639:LEU:HD21	1.84	0.43
16:D:1097:ILE:HB	16:D:1102:ARG:HD2	2.01	0.43
17:E:210:LEU:HD22	17:E:214:ASN:HD21	1.84	0.43
19:G:286:ASN:C	19:G:288:ASP:H	2.27	0.43
19:G:558:ILE:HA	19:G:561:SER:HB3	2.00	0.43
14:I:860:ILE:HG22	14:I:864:TRP:CD1	2.53	0.43
14:I:1177:PRO:HG3	14:I:1200:TYR:CD2	2.54	0.43
14:I:1342:LYS:HD2	14:I:1368:ILE:HB	2.00	0.43
1:A:758:ARG:HA	1:A:780:LEU:HD13	2.00	0.43
1:A:1125:MET:HA	1:A:1128:PHE:CE1	2.54	0.43
1:A:1208:THR:HG23	1:A:1240:ALA:H	1.84	0.43
2:B:225:ASN:HA	2:B:240:SER:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:837:ALA:HA	2:B:841:ASP:HB3	2.00	0.43
4:J:212:VAL:HG12	4:J:220:LEU:HD12	2.01	0.43
4:J:699:LEU:O	4:J:702:GLN:HG3	2.18	0.43
4:J:716:GLN:HE22	14:I:669:LYS:HZ2	1.67	0.43
8:O:530:PHE:HA	9:P:533:TYR:CZ	2.54	0.43
10:Q:119:LYS:HG3	10:Q:129:LEU:HD22	2.01	0.43
11:R:51:LEU:HB2	11:R:110:LYS:HA	2.01	0.43
13:T:86:MET:HE3	13:T:86:MET:HB3	1.82	0.43
3:h:316:VAL:HA	3:h:319:TYR:CE2	2.54	0.43
14:i:226:PHE:HD2	14:i:235:ARG:HB3	1.84	0.43
14:i:752:LEU:HD23	14:i:757:GLU:HG2	2.01	0.43
14:i:776:LEU:HD23	14:i:776:LEU:HA	1.92	0.43
14:i:1222:TRP:CZ2	14:i:1247:MET:HG2	2.54	0.43
4:j:23:ASN:HB2	4:j:29:PHE:HE1	1.84	0.43
4:j:466:ALA:HB3	4:j:479:ILE:HG13	2.01	0.43
7:n:234:ARG:HD3	18:f:671:THR:HG21	2.01	0.43
15:C:144:ILE:HG22	15:C:155:LEU:HD22	2.01	0.43
15:C:541:SER:O	15:C:543:ILE:HG13	2.18	0.43
15:C:708:LYS:C	15:C:710:TYR:N	2.76	0.43
15:C:929:SER:HB2	15:C:955:LEU:HB2	2.00	0.43
16:D:139:ASP:OD1	16:D:139:ASP:N	2.52	0.43
16:D:602:MET:HB2	16:D:602:MET:HE3	1.71	0.43
16:D:874:THR:HB	16:D:893:LEU:HG	2.01	0.43
17:E:212:GLU:O	17:E:215:VAL:HG22	2.18	0.43
17:E:864:LEU:HD13	17:E:883:ALA:HB3	2.01	0.43
17:E:1117:TYR:HB3	17:E:1140:ALA:HB2	1.99	0.43
17:E:1302:GLN:O	17:E:1303:ALA:C	2.62	0.43
18:F:219:GLN:HB2	19:G:592:MET:HA	2.01	0.43
18:F:422:LYS:HB2	18:F:422:LYS:HE3	1.80	0.43
18:F:434:GLU:HG2	18:F:437:VAL:HG12	2.01	0.43
19:G:232:GLN:HG3	19:G:236:GLU:HG2	2.00	0.43
14:I:446:ALA:HB2	14:I:461:LEU:HD13	2.00	0.43
14:I:1240:LYS:HA	14:I:1240:LYS:HD2	1.56	0.43
14:I:1692:ASN:HD22	14:I:1692:ASN:HA	1.64	0.43
18:f:247:ALA:HA	18:f:250:GLN:HE22	1.84	0.43
19:g:480:ASN:HB3	19:g:483:ASN:HB2	2.01	0.43
20:m:440:GLY:O	20:m:444:HIS:N	2.43	0.43
2:B:962:HIS:HA	2:B:965:ARG:HE	1.83	0.42
3:H:279:ALA:HB2	18:F:515:LEU:HD22	2.01	0.42
3:H:353:ARG:HB3	19:G:173:LEU:HD21	2.01	0.42
4:J:36:THR:HB	4:J:49:LYS:HD2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:88:LYS:HA	4:J:99:SER:HA	2.01	0.42
4:J:314:ASP:HB3	4:J:315:MET:H	1.67	0.42
7:N:151:TYR:CZ	20:M:334:LEU:HD22	2.54	0.42
10:Q:14:THR:O	10:Q:16:ARG:NH1	2.52	0.42
11:R:101:GLU:HB3	11:R:103:HIS:CE1	2.54	0.42
13:T:50:ARG:NH2	13:T:168:ASP:OD1	2.51	0.42
14:i:366:ASN:O	14:i:374:ILE:N	2.36	0.42
14:i:941:ARG:HD2	14:i:941:ARG:HA	1.79	0.42
14:i:1052:ARG:NH2	14:i:1076:GLN:OE1	2.50	0.42
14:i:1566:ASP:HB2	14:i:1570:MET:HE2	2.00	0.42
14:i:1592:ALA:O	14:i:1596:TRP:N	2.40	0.42
4:j:117:THR:O	4:j:133:ARG:NH1	2.52	0.42
4:j:464:GLU:O	4:j:481:ILE:N	2.41	0.42
15:C:27:LYS:HD2	15:C:31:SER:HB2	2.01	0.42
15:C:552:GLN:HB2	16:D:376:TYR:CD1	2.54	0.42
16:D:5:LEU:HD13	16:D:306:PRO:HD3	2.01	0.42
16:D:135:ILE:HB	16:D:143:ILE:HB	2.00	0.42
16:D:1094:MET:O	16:D:1095:PRO:C	2.62	0.42
17:E:80:HIS:HA	17:E:83:ALA:HB2	2.00	0.42
17:E:229:ARG:HH22	17:E:260:TRP:HA	1.84	0.42
17:E:733:VAL:HG22	17:E:737:MET:HE2	2.01	0.42
19:G:451:TRP:O	19:G:455:VAL:N	2.25	0.42
14:I:31:LEU:HB3	14:I:43:PHE:HB2	2.01	0.42
14:I:160:VAL:HG22	14:I:176:HIS:CE1	2.53	0.42
14:I:868:LEU:HB3	14:I:873:GLN:O	2.19	0.42
18:f:179:ILE:HA	18:f:182:GLU:HB3	2.01	0.42
18:f:227:MET:HB3	18:f:231:HIS:CE1	2.54	0.42
18:f:256:LYS:HA	18:f:259:ARG:HB3	2.00	0.42
19:g:131:CYS:O	19:g:135:LEU:N	2.52	0.42
1:A:167:ALA:HB1	1:A:193:PRO:HB2	2.01	0.42
2:B:854:GLN:NE2	2:B:869:TYR:OH	2.51	0.42
2:B:1061:ASP:OD1	2:B:1088:LYS:NZ	2.45	0.42
3:H:87:LEU:HA	3:H:248:LEU:HD21	2.01	0.42
3:H:197:LYS:NZ	3:H:199:ALA:O	2.51	0.42
3:H:309:THR:C	18:F:222:TRP:HE1	2.26	0.42
7:N:253:GLN:HA	7:N:256:LEU:HD12	2.00	0.42
7:N:292:LYS:HA	7:N:292:LYS:HD2	1.86	0.42
9:P:498:ILE:HG13	9:P:502:LYS:HE3	1.99	0.42
13:T:96:GLU:HA	13:T:99:LEU:HB2	2.00	0.42
3:h:32:ARG:HD3	3:h:35:ARG:HE	1.85	0.42
14:i:857:VAL:HA	14:i:860:ILE:HB	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1465:ARG:HE	14:i:1473:GLN:HG2	1.83	0.42
4:j:465:ILE:HG22	4:j:480:VAL:HG23	2.00	0.42
4:j:517:SER:HA	4:j:526:VAL:HG22	2.00	0.42
5:k:485:ILE:HD11	6:l:105:GLN:HA	2.00	0.42
7:n:270:GLU:HG2	20:m:448:GLN:HE21	1.83	0.42
15:C:556:VAL:HG11	16:D:363:MET:CE	2.48	0.42
15:C:800:LEU:HD12	15:C:810:VAL:HB	2.01	0.42
15:C:1113:VAL:HG23	15:C:1116:THR:O	2.19	0.42
16:D:168:PRO:HA	16:D:216:ASP:HB3	2.01	0.42
16:D:1093:SER:O	17:E:849:ARG:NH2	2.53	0.42
16:D:1097:ILE:O	16:D:1098:PRO:C	2.62	0.42
17:E:518:ARG:HD2	17:E:837:HIS:HE1	1.84	0.42
17:E:840:GLN:HA	17:E:843:LEU:HB3	2.00	0.42
14:I:68:ILE:HA	14:I:83:ALA:O	2.19	0.42
14:I:527:LEU:HG	14:I:553:TRP:HH2	1.84	0.42
14:I:800:PRO:HA	14:I:803:LEU:HB2	1.99	0.42
14:I:1388:ARG:HG2	14:I:1424:GLN:CD	2.45	0.42
18:f:549:THR:HG23	18:f:580:ARG:HD3	2.01	0.42
18:f:581:LEU:HD23	18:f:581:LEU:HA	1.93	0.42
20:m:106:LYS:HB3	20:m:106:LYS:HE2	1.87	0.42
20:m:107:LEU:HB3	20:m:137:PHE:CZ	2.54	0.42
1:A:391:ARG:HH12	1:A:637:MET:HE2	1.83	0.42
1:A:718:LEU:HD22	1:A:722:ARG:HH12	1.82	0.42
1:A:1013:THR:HG23	1:A:1016:ARG:HH21	1.84	0.42
2:B:256:GLN:HG3	2:B:303:LEU:HD12	2.02	0.42
2:B:756:CYS:HB3	2:B:765:ALA:HB2	2.01	0.42
2:B:847:SER:OG	15:C:850:ASN:OD1	2.25	0.42
2:B:998:LEU:HD13	2:B:1001:ASP:HB2	2.01	0.42
2:B:1031:ALA:HB2	2:B:1046:MET:HE1	2.01	0.42
2:B:1303:CYS:O	2:B:1306:LEU:HB2	2.19	0.42
5:K:447:LYS:HG2	6:L:69:ALA:HB2	2.00	0.42
7:N:73:MET:HB3	7:N:79:MET:SD	2.59	0.42
8:O:378:LYS:HA	8:O:378:LYS:HD3	1.89	0.42
8:O:418:PHE:CE2	9:P:415:MET:HG3	2.53	0.42
8:O:596:LYS:HA	10:Q:49:MET:HB3	1.99	0.42
13:T:42:ALA:HB2	13:T:70:TYR:CG	2.55	0.42
3:h:68:PHE:HB2	3:h:72:GLU:HB3	2.02	0.42
14:i:74:SER:H	14:i:80:LEU:HA	1.84	0.42
14:i:667:VAL:HA	14:i:670:LYS:HD2	2.00	0.42
14:i:694:GLN:HA	4:j:642:HIS:HD2	1.84	0.42
14:i:1104:LEU:HD13	14:i:1104:LEU:HA	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:j:243:ALA:HB1	4:j:274:LEU:HD12	2.01	0.42
5:k:455:ALA:O	5:k:459:ARG:NH1	2.53	0.42
6:l:31:GLN:HA	7:n:137:LYS:HE3	2.01	0.42
15:C:823:ARG:HH21	15:C:826:GLU:HG2	1.84	0.42
15:C:925:LEU:HD23	15:C:925:LEU:HA	1.93	0.42
16:D:509:LEU:HB3	16:D:521:TYR:HB2	2.00	0.42
16:D:691:ARG:HD3	16:D:714:ALA:HA	2.02	0.42
18:F:448:LEU:C	18:F:450:PHE:H	2.27	0.42
18:F:631:PHE:O	18:F:634:LEU:HG	2.19	0.42
19:G:430:LEU:HD23	19:G:430:LEU:HA	1.95	0.42
19:G:448:HIS:HD2	19:G:449:GLU:HG2	1.83	0.42
14:I:70:ALA:O	14:I:119:LEU:HB3	2.20	0.42
14:I:1018:MET:HE3	14:I:1021:GLN:H	1.84	0.42
14:I:1494:LYS:HG2	14:I:1543:PHE:HE1	1.85	0.42
14:I:1691:ALA:O	14:I:1692:ASN:ND2	2.52	0.42
1:A:738:VAL:HG23	1:A:739:LEU:HG	2.01	0.42
1:A:962:ILE:HA	1:A:965:LYS:HE2	2.01	0.42
1:A:1286:GLN:HB2	16:D:733:LYS:HB3	2.01	0.42
2:B:162:MET:HE1	2:B:188:ASN:HB3	2.00	0.42
2:B:608:VAL:HG22	2:B:719:ARG:HH22	1.83	0.42
3:H:63:GLY:O	3:H:65:LYS:N	2.52	0.42
3:H:135:SER:O	3:H:137:GLY:N	2.53	0.42
3:H:138:ILE:HD11	3:H:193:LEU:HD23	2.00	0.42
3:H:199:ALA:H	3:H:265:ASP:HB3	1.84	0.42
4:J:210:TYR:HB3	4:J:230:VAL:HG11	2.02	0.42
4:J:625:LEU:HD13	4:J:656:ARG:CG	2.50	0.42
6:L:45:GLN:HG3	20:M:316:HIS:NE2	2.34	0.42
7:N:62:ARG:O	7:N:66:LEU:HB2	2.18	0.42
8:O:595:LEU:HG	10:Q:49:MET:HG3	2.01	0.42
10:Q:194:VAL:HG13	11:R:36:PHE:HZ	1.84	0.42
3:h:33:ARG:HG3	3:h:34:LEU:HD13	2.02	0.42
14:i:876:ALA:O	14:i:880:HIS:N	2.49	0.42
4:j:190:LEU:HD12	4:j:231:THR:HA	2.01	0.42
4:j:352:ALA:HB1	4:j:374:THR:HG22	2.01	0.42
4:j:473:ILE:HG23	4:j:493:MET:HE2	2.01	0.42
4:j:598:LYS:HB3	5:k:500:GLY:HA2	2.00	0.42
15:C:607:PHE:HZ	15:C:643:GLN:HE21	1.65	0.42
15:C:930:ARG:NH1	15:C:1006:LEU:O	2.51	0.42
16:D:232:CYS:SG	16:D:258:PRO:HB2	2.59	0.42
16:D:784:ASP:O	16:D:788:LEU:N	2.45	0.42
17:E:1080:GLY:HA2	17:E:1083:ASN:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:1164:LEU:O	17:E:1168:ALA:N	2.52	0.42
14:I:76:ASP:OD1	14:I:76:ASP:N	2.51	0.42
14:I:321:CYS:SG	14:I:334:THR:OG1	2.74	0.42
14:I:726:GLU:HA	14:I:750:TRP:HB3	2.02	0.42
20:M:65:GLN:HA	20:M:68:TYR:HB2	2.00	0.42
20:M:426:LYS:HA	18:f:555:GLY:HA3	2.00	0.42
1:A:18:LEU:HD22	1:A:337:LYS:HE3	2.01	0.42
1:A:41:ASP:OD1	1:A:44:GLY:N	2.53	0.42
1:A:213:THR:HG23	1:A:225:ILE:HG23	2.01	0.42
1:A:840:LEU:HD12	1:A:864:CYS:HB3	2.01	0.42
1:A:923:LYS:HD2	1:A:928:ARG:HB2	2.01	0.42
2:B:27:SER:HB3	2:B:362:PRO:HG3	2.00	0.42
2:B:714:ASP:HB3	2:B:717:THR:HG22	2.01	0.42
2:B:831:ASP:OD1	2:B:831:ASP:N	2.52	0.42
2:B:899:ASN:N	2:B:899:ASN:OD1	2.52	0.42
2:B:1212:MET:HE3	2:B:1216:ILE:HD11	2.02	0.42
3:H:294:ARG:HG2	18:F:368:LYS:HD2	2.02	0.42
3:H:306:LYS:HB2	18:F:357:LYS:HD3	2.01	0.42
4:J:16:LEU:HB3	7:N:4:ARG:HH12	1.83	0.42
4:J:24:VAL:C	4:J:26:ASN:H	2.28	0.42
4:J:559:GLN:HE21	4:J:569:ARG:HG3	1.84	0.42
7:N:9:PHE:HB3	7:N:13:MET:HE1	2.02	0.42
7:N:225:LYS:NZ	20:M:405:MET:HE3	2.35	0.42
8:O:534:GLU:OE2	8:O:537:GLN:NE2	2.52	0.42
9:P:527:LEU:HD12	9:P:529:LYS:HB2	2.01	0.42
9:P:627:ILE:HD13	9:P:627:ILE:HA	1.92	0.42
10:Q:45:LYS:HE3	10:Q:168:ALA:HB3	2.01	0.42
3:h:175:TYR:OH	3:h:194:SER:N	2.52	0.42
14:i:214:CYS:HB3	14:i:253:PHE:HE1	1.82	0.42
14:i:671:ALA:HB1	14:i:688:VAL:HG22	2.00	0.42
14:i:1158:LEU:HA	14:i:1161:GLU:HB2	2.00	0.42
4:j:302:LEU:HB2	4:j:309:VAL:HG13	2.01	0.42
4:j:657:ASN:C	4:j:661:ALA:HB3	2.44	0.42
4:j:686:LEU:HD12	4:j:686:LEU:HA	1.91	0.42
5:k:411:LEU:HG	6:l:33:ASN:HB3	2.01	0.42
15:C:326:ILE:HD12	15:C:353:TYR:CZ	2.55	0.42
15:C:483:ASN:HB2	15:C:490:VAL:HG11	2.00	0.42
15:C:771:LYS:HG3	15:C:786:LEU:HD13	2.01	0.42
15:C:1013:CYS:SG	15:C:1015:THR:HB	2.59	0.42
16:D:467:ARG:HB3	16:D:468:GLU:H	1.67	0.42
16:D:834:LEU:HB3	16:D:855:PHE:HZ	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:251:ASP:HB2	17:E:253:GLN:HE21	1.84	0.42
17:E:279:LEU:HD11	17:E:316:GLY:C	2.44	0.42
17:E:329:ARG:HA	17:E:329:ARG:HD2	1.87	0.42
17:E:601:THR:HB	17:E:604:TYR:HB2	2.01	0.42
17:E:634:VAL:HA	17:E:653:PRO:HB3	2.02	0.42
17:E:836:GLN:HG3	17:E:863:ALA:HA	2.00	0.42
18:F:302:CYS:SG	18:F:303:ASN:N	2.93	0.42
18:F:432:LYS:HA	18:F:438:LYS:HG2	2.02	0.42
19:G:450:VAL:HG22	19:G:451:TRP:H	1.84	0.42
14:I:1595:ALA:O	14:I:1599:ALA:N	2.52	0.42
19:g:460:PHE:HE1	19:g:495:LEU:HD23	1.84	0.42
19:g:571:THR:HA	19:g:574:TRP:CD1	2.55	0.42
19:g:578:LYS:HB3	19:g:578:LYS:HE3	1.83	0.42
2:B:550:LYS:H	2:B:550:LYS:HG3	1.55	0.42
2:B:925:TYR:HE2	2:B:937:ILE:HD12	1.85	0.42
3:H:355:PRO:HG2	19:G:113:ALA:HB2	2.02	0.42
4:J:354:GLN:HA	4:J:370:ASP:HA	2.00	0.42
7:N:151:TYR:HE2	20:M:331:LEU:HA	1.84	0.42
7:N:243:ARG:HH22	20:M:412:ILE:HA	1.84	0.42
8:O:494:MET:HB2	15:C:1231:PRO:HD3	2.01	0.42
14:i:145:ASN:OD1	14:i:145:ASN:N	2.51	0.42
14:i:640:LEU:HD13	14:i:696:ASN:HB2	2.02	0.42
14:i:697:LYS:HE2	14:i:697:LYS:HB2	1.58	0.42
14:i:703:GLU:HG3	14:i:719:TYR:CE1	2.55	0.42
14:i:1606:PHE:HB2	14:i:1666:ILE:HG21	2.02	0.42
4:j:111:ARG:HB3	4:j:153:TRP:HD1	1.85	0.42
4:j:493:MET:HE3	4:j:493:MET:HB3	1.87	0.42
4:j:536:ASP:HB2	4:j:661:ALA:HA	2.00	0.42
4:j:547:LYS:HD3	4:j:550:SER:HB2	2.01	0.42
15:C:1057:ASP:HB2	15:C:1145:LYS:HB2	2.00	0.42
16:D:1107:ASP:HB3	16:D:1110:MET:HE2	2.02	0.42
17:E:88:HIS:HA	17:E:91:ILE:HB	2.01	0.42
17:E:179:ALA:O	17:E:183:ASP:N	2.50	0.42
17:E:209:VAL:HG13	17:E:210:LEU:HD23	2.02	0.42
17:E:345:MET:HE1	17:E:483:ASN:HB3	2.01	0.42
17:E:1072:ASP:O	17:E:1073:PRO:C	2.63	0.42
17:E:1129:LYS:HB3	17:E:1300:GLU:OE2	2.19	0.42
18:F:601:SER:HA	18:F:604:VAL:HG22	2.02	0.42
14:I:458:SER:HA	14:I:460:LYS:HE2	2.01	0.42
14:I:1609:LEU:HA	14:I:1612:PHE:HB3	2.02	0.42
20:M:439:ILE:O	20:M:443:SER:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:564:VAL:HG13	1:A:606:VAL:HG11	2.01	0.42
1:A:775:LYS:HA	1:A:778:GLU:HB2	2.00	0.42
1:A:897:THR:HG23	1:A:899:ASN:HB2	2.01	0.42
1:A:957:GLN:HA	1:A:960:TYR:HD2	1.84	0.42
1:A:968:SER:HB2	1:A:971:ALA:HB3	2.01	0.42
2:B:209:TYR:CZ	2:B:259:TRP:HB2	2.55	0.42
2:B:252:ALA:HB3	2:B:255:LEU:HD22	2.01	0.42
2:B:405:ASN:ND2	2:B:449:GLU:OE1	2.52	0.42
2:B:1311:PRO:HA	2:B:1312:PRO:HD3	1.99	0.42
3:H:177:PHE:HD2	3:H:180:GLY:HA2	1.85	0.42
3:H:358:PRO:HD3	19:G:86:TYR:CE2	2.55	0.42
4:J:150:SER:HB2	4:J:191:LYS:HD2	2.01	0.42
8:O:473:TYR:O	8:O:477:GLN:CB	2.67	0.42
11:R:28:MET:HB2	11:R:129:VAL:N	2.35	0.42
11:R:53:SER:OG	11:R:54:CYS:N	2.52	0.42
11:R:74:LYS:HD2	11:R:107:ILE:HB	2.02	0.42
14:i:660:LYS:HE3	14:i:663:PHE:HD1	1.83	0.42
14:i:1079:ASP:OD1	14:i:1082:ARG:NH2	2.43	0.42
14:i:1525:ASN:HB3	14:i:1723:ASN:HB2	2.01	0.42
4:j:370:ASP:OD1	4:j:370:ASP:N	2.44	0.42
15:C:294:SER:O	15:C:310:MET:HE1	2.19	0.42
15:C:512:SER:HB3	15:C:517:LEU:HA	2.01	0.42
15:C:706:GLU:HG2	16:D:707:ASP:HB3	2.01	0.42
15:C:1012:ARG:CZ	15:C:1118:ILE:HG13	2.49	0.42
16:D:143:ILE:HG21	16:D:151:ARG:HA	2.01	0.42
16:D:472:SER:HB2	16:D:513:ARG:HH22	1.84	0.42
16:D:875:LYS:NZ	16:D:879:ASP:OD2	2.53	0.42
17:E:204:GLY:O	17:E:208:ASP:N	2.53	0.42
17:E:823:TYR:HD1	17:E:826:LYS:HD2	1.84	0.42
17:E:1343:LYS:HA	17:E:1346:LEU:HD12	2.02	0.42
17:E:1350:ARG:HH22	17:E:1353:LEU:HD23	1.85	0.42
19:G:180:LEU:HA	19:G:183:ILE:HD12	2.00	0.42
19:G:208:VAL:HG23	19:G:214:LEU:HB3	2.00	0.42
14:I:293:ALA:O	14:I:311:MET:HG2	2.20	0.42
14:I:542:ILE:O	14:I:552:VAL:HA	2.20	0.42
14:I:787:ALA:O	14:I:791:MET:HG2	2.20	0.42
14:I:1248:TRP:CH2	14:I:1270:LEU:HB2	2.43	0.42
14:I:1724:GLY:HA3	14:I:1725:PRO:HD3	1.85	0.42
20:M:306:TRP:CD1	20:M:307:ARG:HG3	2.55	0.42
18:f:364:ARG:HD2	18:f:367:VAL:HB	2.01	0.42
18:f:493:ARG:HG3	18:f:516:VAL:HG12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:f:653:TYR:O	18:f:658:ASN:N	2.49	0.42
19:g:246:LYS:HE3	19:g:246:LYS:HB3	1.79	0.42
20:m:86:ALA:HA	20:m:87:PRO:HD3	1.87	0.42
1:A:797:GLU:OE2	1:A:837:ARG:NH2	2.53	0.42
1:A:1337:ASP:O	1:A:1340:HIS:HB2	2.19	0.42
2:B:416:ARG:HA	2:B:416:ARG:HD3	1.89	0.42
2:B:521:ILE:HA	2:B:540:PRO:HA	2.01	0.42
2:B:674:HIS:O	2:B:676:LEU:N	2.52	0.42
3:H:41:ASP:N	3:H:41:ASP:OD1	2.52	0.42
4:J:221:PHE:HD1	4:J:554:LYS:HE3	1.85	0.42
5:K:409:ARG:HA	5:K:412:VAL:HG12	2.02	0.42
8:O:361:GLU:HG3	9:P:358:LYS:HZ3	1.85	0.42
8:O:495:ARG:HE	8:O:498:GLU:CD	2.28	0.42
8:O:501:LYS:HD3	15:C:1114:PRO:HD3	2.01	0.42
10:Q:134:VAL:HG21	10:Q:178:PRO:HG3	2.01	0.42
12:S:221:TRP:HZ3	19:G:21:TYR:CE2	2.38	0.42
13:T:139:GLY:O	13:T:142:LYS:NZ	2.52	0.42
3:h:87:LEU:HA	3:h:248:LEU:HD22	2.01	0.42
3:h:329:LEU:CD2	18:f:130:GLU:HG2	2.50	0.42
14:i:161:VAL:N	14:i:175:GLY:O	2.52	0.42
14:i:531:GLN:HG2	14:i:545:GLN:HB2	2.01	0.42
4:j:24:VAL:HG12	4:j:65:VAL:HA	2.02	0.42
4:j:66:SER:HB2	4:j:413:ARG:HH12	1.85	0.42
4:j:657:ASN:HB2	4:j:673:ILE:HD13	2.02	0.42
4:j:689:LYS:HB3	4:j:689:LYS:HE2	1.51	0.42
16:D:437:ASN:HB2	16:D:440:VAL:HB	2.01	0.42
17:E:4:ARG:HD2	17:E:222:PRO:HG3	2.01	0.42
17:E:139:ASP:N	17:E:139:ASP:OD1	2.50	0.42
17:E:197:MET:HE1	17:E:205:PRO:HG2	2.02	0.42
17:E:243:THR:HA	17:E:246:ARG:HD2	2.00	0.42
17:E:596:PHE:HZ	17:E:599:ARG:HH11	1.68	0.42
17:E:643:ARG:HG3	17:E:650:VAL:O	2.20	0.42
18:F:260:PHE:CE1	18:F:291:PRO:HA	2.55	0.42
14:I:20:THR:HG21	14:I:67:ILE:HB	2.01	0.42
14:I:413:MET:HE3	14:I:420:LEU:HG	2.02	0.42
14:I:488:HIS:HE1	14:I:514:HIS:CD2	2.37	0.42
14:I:1271:LEU:HB3	14:I:1272:SER:H	1.72	0.42
20:M:350:LYS:HE2	20:M:352:LEU:HB3	2.02	0.42
18:f:212:VAL:HG21	18:f:227:MET:HE1	2.01	0.42
18:f:465:ALA:O	18:f:469:ASP:HB3	2.19	0.42
19:g:331:ALA:HB2	19:g:357:ILE:HD13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:g:558:ILE:HG23	19:g:580:CYS:SG	2.60	0.42
20:m:98:GLN:HA	20:m:101:LEU:HD12	2.02	0.42
20:m:308:SER:O	20:m:312:GLU:N	2.49	0.42
1:A:162:ASN:O	1:A:178:GLY:N	2.45	0.42
1:A:798:MET:SD	2:B:767:HIS:NE2	2.93	0.42
2:B:136:MET:HE3	2:B:136:MET:HB3	1.63	0.42
2:B:292:GLN:NE2	2:B:296:LEU:O	2.53	0.42
2:B:308:ARG:HH21	2:B:360:TRP:HE3	1.68	0.42
2:B:649:LYS:HD2	2:B:728:LEU:HD21	2.00	0.42
2:B:1115:GLU:OE2	2:B:1156:LYS:NZ	2.40	0.42
2:B:1322:ARG:HE	2:B:1360:TYR:HE1	1.64	0.42
3:H:90:MET:HG2	3:H:102:ILE:HG12	2.02	0.42
4:J:412:LEU:HD12	4:J:412:LEU:HA	1.86	0.42
4:J:730:PHE:O	4:J:734:ASN:CB	2.64	0.42
6:L:73:ARG:HE	7:N:19:PRO:CB	2.33	0.42
6:L:73:ARG:HE	7:N:19:PRO:HB2	1.84	0.42
7:N:12:VAL:HG21	7:N:101:ALA:HB1	2.01	0.42
3:h:34:LEU:O	3:h:38:TYR:HB2	2.19	0.42
3:h:289:ILE:HG12	18:f:412:THR:HG21	2.02	0.42
14:i:991:LEU:HD13	14:i:1018:MET:HE3	2.01	0.42
14:i:1566:ASP:O	14:i:1570:MET:N	2.43	0.42
4:j:36:THR:OG1	4:j:49:LYS:NZ	2.45	0.42
6:l:34:THR:HG21	7:n:137:LYS:HB2	2.02	0.42
7:n:26:ASN:HD22	7:n:35:VAL:CA	2.32	0.42
7:n:252:TYR:HA	7:n:255:TYR:HD2	1.85	0.42
15:C:34:VAL:HG13	15:C:43:VAL:HG22	2.02	0.42
15:C:110:VAL:HG23	15:C:150:GLY:HA3	2.01	0.42
15:C:398:TYR:HA	15:C:404:LYS:HA	2.01	0.42
15:C:980:LEU:HD13	15:C:984:TRP:HD1	1.84	0.42
15:C:998:LYS:HA	15:C:998:LYS:HD3	1.90	0.42
16:D:550:MET:HG3	16:D:551:SER:N	2.33	0.42
16:D:969:LYS:HD2	18:F:627:LYS:HD2	2.02	0.42
17:E:242:GLU:OE2	17:E:246:ARG:NH1	2.52	0.42
18:F:203:GLU:O	18:F:207:LEU:N	2.52	0.42
18:F:670:HIS:CD2	18:F:674:PRO:HB3	2.54	0.42
14:I:542:ILE:HD11	14:I:556:VAL:HG12	2.02	0.42
14:I:1089:GLY:O	14:I:1093:SER:CB	2.68	0.42
19:g:369:ARG:O	19:g:373:LEU:N	2.48	0.42
1:A:28:LEU:O	1:A:39:ILE:HA	2.20	0.42
1:A:516:ASP:C	1:A:518:THR:N	2.76	0.42
3:H:150:SER:OG	3:H:151:LEU:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:169:ASP:O	3:H:203:ASN:ND2	2.53	0.42
4:J:229:PRO:HG2	7:N:22:ILE:HB	2.02	0.42
6:L:49:ASP:O	20:M:309:HIS:ND1	2.41	0.42
7:N:296:GLU:O	7:N:300:ARG:HG2	2.20	0.42
8:O:605:MET:HG2	9:P:613:GLN:NE2	2.35	0.42
3:h:271:LEU:HD12	7:n:266:GLU:HG3	2.02	0.42
3:h:329:LEU:HB2	18:f:127:ARG:NE	2.35	0.42
14:i:11:PRO:HA	14:i:12:PRO:HD3	1.90	0.42
14:i:1418:LEU:HB2	14:i:1425:HIS:CD2	2.55	0.42
14:i:1564:LEU:HD12	14:i:1741:PHE:HE2	1.84	0.42
4:j:54:ASP:OD1	4:j:54:ASP:N	2.53	0.42
5:k:429:LEU:HB2	6:l:51:TYR:CE1	2.55	0.42
7:n:84:LYS:HA	7:n:87:TYR:HB3	2.02	0.42
7:n:253:GLN:HE22	20:m:431:GLU:HG2	1.84	0.42
15:C:541:SER:HB3	15:C:557:PRO:C	2.45	0.42
15:C:939:PRO:HG2	15:C:940:ARG:HH21	1.85	0.42
16:D:610:ILE:HG21	16:D:660:ARG:CG	2.49	0.42
17:E:1320:ARG:HG3	17:E:1321:TYR:O	2.19	0.42
19:G:359:ARG:CZ	19:G:420:ALA:HB1	2.50	0.42
19:G:589:ALA:HB3	19:G:591:HIS:NE2	2.34	0.42
14:I:183:LYS:HB2	14:I:199:LEU:HB2	2.02	0.42
14:I:259:THR:HG22	14:I:270:MET:HE3	2.02	0.42
14:I:1560:LYS:HG3	14:I:1572:LEU:HD11	2.02	0.42
14:I:1589:PHE:HZ	14:I:1639:ILE:HD13	1.84	0.42
18:f:156:ALA:HB2	18:f:191:LEU:HD21	2.01	0.42
18:f:585:HIS:C	18:f:587:ARG:H	2.27	0.42
19:g:191:LYS:HB2	19:g:401:LYS:HB3	2.02	0.42
19:g:442:ALA:HA	19:g:451:TRP:HH2	1.85	0.42
1:A:141:LYS:HB3	1:A:141:LYS:HE2	1.78	0.41
1:A:311:ARG:HB3	1:A:321:GLU:HG3	2.02	0.41
1:A:1340:HIS:O	1:A:1342:ARG:NH1	2.53	0.41
2:B:56:ILE:HD13	2:B:78:ILE:HD11	2.01	0.41
2:B:777:GLY:HA2	2:B:800:HIS:HB2	2.01	0.41
2:B:1012:ALA:HA	2:B:1015:ILE:HD12	2.01	0.41
2:B:1327:TYR:O	2:B:1330:MET:HG2	2.20	0.41
3:H:100:THR:OG1	3:H:101:ASN:N	2.53	0.41
3:H:197:LYS:HE2	3:H:269:LEU:HB3	2.02	0.41
4:J:477:GLN:HA	4:J:491:PRO:HA	2.02	0.41
4:J:632:PHE:CD2	4:J:640:LYS:HB3	2.54	0.41
6:L:66:LYS:HG3	7:N:107:ALA:HB2	2.02	0.41
6:L:70:ILE:HG23	7:N:19:PRO:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:N:144:ILE:HG23	20:M:327:SER:HB2	2.02	0.41
7:N:289:LYS:HG3	7:N:293:ARG:HE	1.85	0.41
9:P:358:LYS:HA	9:P:358:LYS:HD2	1.93	0.41
9:P:582:VAL:HG12	9:P:592:ARG:HH22	1.84	0.41
9:P:598:LYS:HA	9:P:598:LYS:HD3	1.86	0.41
9:P:626:GLN:HG2	12:S:265:HIS:CE1	2.55	0.41
13:T:25:LEU:HD12	13:T:61:PHE:HZ	1.85	0.41
3:h:348:PHE:HA	19:g:277:VAL:HG21	2.01	0.41
14:i:27:ASN:ND2	14:i:99:THR:OG1	2.51	0.41
14:i:408:ASN:H	14:i:411:VAL:HG22	1.84	0.41
14:i:654:ALA:C	14:i:656:GLY:H	2.28	0.41
14:i:1089:GLY:HA3	14:I:1144:LYS:HE2	2.02	0.41
14:i:1267:GLN:HE22	14:i:1286:ASP:HB2	1.83	0.41
4:j:194:TRP:CD1	4:j:201:ILE:HB	2.54	0.41
4:j:565:ARG:HH22	5:k:482:ARG:HD3	1.84	0.41
4:j:586:VAL:O	4:j:590:MET:N	2.50	0.41
4:j:627:THR:HA	4:j:630:VAL:HG12	2.02	0.41
12:s:257:VAL:HG11	12:s:285:LEU:HB3	2.01	0.41
15:C:547:HIS:HB2	16:D:378:ARG:HD2	2.02	0.41
17:E:346:MET:HB2	17:E:348:GLU:HG2	2.02	0.41
18:F:354:GLU:HB2	19:G:644:LYS:HE2	2.02	0.41
18:F:483:LEU:HD12	18:F:495:LEU:HG	2.01	0.41
19:G:39:GLN:HE22	19:G:48:ALA:HB3	1.84	0.41
19:G:299:ASN:HA	19:G:302:LEU:HB3	2.02	0.41
19:G:439:ARG:HH22	19:G:459:PHE:HZ	1.68	0.41
14:I:1057:HIS:HA	14:I:1060:GLU:HB2	2.01	0.41
14:I:1564:LEU:HD13	14:I:1567:ILE:HD13	2.02	0.41
18:f:461:TYR:O	18:f:465:ALA:HB3	2.20	0.41
1:A:828:GLU:O	1:A:832:LYS:HG2	2.20	0.41
1:A:1085:GLY:O	1:A:1089:LEU:HB2	2.20	0.41
1:A:1250:MET:HB2	1:A:1255:GLU:HG3	2.01	0.41
3:H:21:HIS:HB2	3:H:27:PHE:HE2	1.84	0.41
3:H:53:LEU:HB3	3:H:79:PHE:CD1	2.55	0.41
3:H:356:PRO:HA	3:H:357:PRO:HD3	1.91	0.41
4:J:6:LYS:N	4:J:294:PHE:O	2.47	0.41
4:J:317:ILE:O	4:J:330:LEU:HD23	2.20	0.41
4:J:357:VAL:O	4:J:367:HIS:ND1	2.53	0.41
7:N:151:TYR:CE2	20:M:331:LEU:HA	2.54	0.41
8:O:486:GLU:OE1	15:C:1122:ARG:NE	2.53	0.41
9:P:432:THR:HG23	13:T:45:ILE:HB	2.02	0.41
3:h:294:ARG:HA	3:h:294:ARG:HD3	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:h:295:ASP:O	3:h:297:THR:N	2.53	0.41
3:h:370:ALA:HB1	12:s:229:HIS:CD2	2.54	0.41
14:i:699:TRP:HA	14:i:702:SER:HB3	2.01	0.41
14:i:703:GLU:HG3	14:i:719:TYR:CZ	2.56	0.41
14:i:872:LYS:HA	14:i:874:MET:HE3	2.01	0.41
14:i:1547:TYR:OH	14:i:1727:LEU:HD21	2.20	0.41
4:j:339:LYS:H	4:j:350:ALA:HB3	1.84	0.41
5:k:414:LYS:HD2	7:n:129:LYS:HD3	2.02	0.41
5:k:437:ARG:HE	5:k:437:ARG:HB2	1.61	0.41
5:k:457:GLU:HA	5:k:460:LEU:HB3	2.02	0.41
5:k:470:GLN:O	5:k:474:LEU:N	2.53	0.41
15:C:140:ARG:O	15:C:158:PHE:N	2.53	0.41
15:C:218:ARG:HG3	15:C:252:GLY:HA3	2.02	0.41
15:C:303:ARG:NE	15:C:365:TYR:OH	2.44	0.41
15:C:467:ARG:HH12	16:D:829:GLU:HB3	1.86	0.41
15:C:511:TYR:O	15:C:518:SER:OG	2.29	0.41
16:D:232:CYS:HB2	16:D:261:VAL:HB	2.01	0.41
16:D:610:ILE:HD11	16:D:612:ARG:HH21	1.84	0.41
16:D:670:LYS:HD2	16:D:696:HIS:HB3	2.02	0.41
17:E:206:CYS:C	17:E:208:ASP:N	2.78	0.41
17:E:834:GLY:H	17:E:867:ASN:HB3	1.85	0.41
18:F:280:LEU:O	18:F:284:ALA:HB3	2.20	0.41
18:F:316:PHE:CD2	18:F:373:ILE:HD12	2.55	0.41
18:F:636:SER:CB	18:F:645:TRP:HE1	2.31	0.41
19:G:204:ILE:HG22	19:G:219:ASN:HB2	2.01	0.41
19:G:238:ALA:O	19:G:242:ALA:N	2.52	0.41
14:I:392:SER:HB3	14:I:425:TYR:HA	2.03	0.41
14:I:411:VAL:HG12	14:I:424:GLU:HA	2.01	0.41
14:I:869:VAL:HA	14:I:874:MET:SD	2.60	0.41
14:I:1656:ARG:HA	14:I:1659:VAL:HB	2.02	0.41
18:f:294:GLN:O	18:f:297:TYR:N	2.54	0.41
19:g:179:LEU:HA	19:g:182:ASN:HB2	2.02	0.41
1:A:516:ASP:O	1:A:518:THR:N	2.53	0.41
1:A:647:MET:HB2	1:A:665:ALA:HB2	2.02	0.41
1:A:756:VAL:HG22	1:A:759:ALA:H	1.84	0.41
1:A:763:MET:HE3	1:A:763:MET:HB2	1.90	0.41
1:A:1169:SER:HB2	1:A:1188:MET:HE2	2.02	0.41
2:B:1093:LEU:HD12	2:B:1105:LEU:HD22	2.02	0.41
2:B:1168:MET:O	2:B:1172:LEU:HG	2.19	0.41
3:H:20:SER:CB	20:m:467:GLU:HG3	2.47	0.41
3:H:305:PHE:CE1	18:F:292:ASP:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:62:TRP:O	4:J:63:TYR:C	2.63	0.41
4:J:339:LYS:HD2	4:J:339:LYS:HA	1.83	0.41
4:J:543:THR:HA	4:J:610:THR:HG23	2.01	0.41
7:N:285:ARG:HA	18:F:376:LYS:HE2	2.02	0.41
8:O:512:GLU:O	8:O:516:LEU:CB	2.68	0.41
11:R:3:ASP:HA	11:R:132:VAL:HG12	2.02	0.41
14:i:603:PHE:HB2	14:i:619:LEU:HD11	2.00	0.41
4:j:240:GLU:HG2	4:j:255:ARG:HD3	2.02	0.41
4:j:456:TRP:CD1	4:j:490:LEU:HD13	2.55	0.41
6:l:35:ASN:OD1	20:m:316:HIS:ND1	2.52	0.41
7:n:8:SER:HB2	7:n:98:LEU:HB3	2.02	0.41
7:n:132:ASN:C	7:n:132:ASN:HD22	2.27	0.41
15:C:147:THR:HG22	15:C:187:TRP:CE2	2.55	0.41
15:C:311:THR:O	15:C:332:VAL:HG23	2.20	0.41
15:C:917:PHE:O	15:C:919:THR:N	2.54	0.41
17:E:682:LYS:HA	17:E:682:LYS:HD2	1.81	0.41
19:G:585:ILE:HA	19:G:641:MET:HE1	2.02	0.41
14:I:167:LEU:HD22	14:I:255:PRO:HA	2.02	0.41
14:I:662:ARG:NH2	14:I:665:HIS:O	2.53	0.41
14:I:1461:HIS:CE1	14:I:1464:ARG:HH21	2.39	0.41
14:I:1611:ARG:HB2	14:I:1634:PHE:CE2	2.56	0.41
19:g:140:PRO:HG3	19:g:149:THR:HG21	2.01	0.41
19:g:591:HIS:HB3	19:g:593:ILE:HG12	2.00	0.41
1:A:599:VAL:HG11	15:C:980:LEU:H	1.85	0.41
1:A:722:ARG:HD3	2:B:780:ALA:HB1	2.02	0.41
1:A:1040:TYR:HD2	1:A:1059:LEU:HD22	1.85	0.41
1:A:1089:LEU:HD11	1:A:1105:ARG:HG2	2.02	0.41
2:B:714:ASP:C	2:B:716:LYS:H	2.29	0.41
3:H:75:MET:HE2	3:H:75:MET:HB2	1.82	0.41
3:H:328:GLN:HG3	19:G:547:ALA:HA	2.01	0.41
3:H:419:ARG:NH1	3:H:423:GLN:OE1	2.53	0.41
4:J:252:LEU:H	4:J:252:LEU:HG	1.74	0.41
4:J:539:LEU:HA	4:J:542:LYS:HB2	2.02	0.41
7:N:303:ARG:HH12	18:F:311:GLY:HA2	1.85	0.41
9:P:424:ALA:HA	9:P:427:PHE:HB3	2.02	0.41
9:P:443:LEU:HD13	9:P:446:LYS:HG2	2.01	0.41
14:i:505:LEU:HD23	14:i:535:TRP:HZ2	1.85	0.41
14:i:620:GLU:OE2	14:i:656:GLY:HA2	2.21	0.41
14:i:1405:TYR:CZ	14:i:1409:LEU:HD21	2.55	0.41
14:i:1673:ASP:OD1	14:i:1673:ASP:N	2.53	0.41
4:j:466:ALA:O	4:j:479:ILE:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:k:448:ARG:HA	5:k:451:GLN:HB2	2.03	0.41
15:C:565:TYR:HA	15:C:570:ASP:HB2	2.01	0.41
16:D:47:THR:HG22	16:D:49:LYS:H	1.84	0.41
16:D:932:SER:N	17:E:714:ASP:OD2	2.51	0.41
17:E:198:GLU:OE1	17:E:206:CYS:HB3	2.21	0.41
17:E:930:ARG:HG3	17:E:964:HIS:CD2	2.46	0.41
18:F:319:LEU:HA	18:F:319:LEU:HD13	1.77	0.41
18:F:602:HIS:HB3	18:F:638:ILE:HG21	2.03	0.41
18:F:648:MET:O	18:F:652:CYS:CB	2.61	0.41
19:G:62:GLN:H	19:G:62:GLN:HG3	1.75	0.41
19:G:153:MET:HG2	19:G:158:LYS:HE2	2.02	0.41
14:I:719:TYR:HB3	14:I:728:ALA:HA	2.02	0.41
14:I:1014:LYS:C	14:I:1017:LYS:H	2.28	0.41
14:I:1425:HIS:HB3	14:I:1445:LEU:HD13	2.01	0.41
14:I:1508:ARG:HG2	14:I:1587:ARG:HH21	1.85	0.41
14:I:1574:SER:C	14:I:1576:LEU:H	2.29	0.41
20:M:314:HIS:HA	20:M:317:LYS:HG2	2.01	0.41
18:f:481:CYS:HA	18:f:484:VAL:HG23	2.03	0.41
18:f:649:VAL:HG13	18:f:653:TYR:CZ	2.56	0.41
19:g:200:LEU:HD21	19:g:245:LEU:HD23	2.03	0.41
19:g:389:GLN:HA	19:g:392:ARG:HD3	2.02	0.41
20:m:354:GLU:HA	20:m:357:GLU:HB3	2.01	0.41
1:A:118:ARG:HH21	1:A:159:ASN:HA	1.86	0.41
1:A:329:LEU:HD23	1:A:329:LEU:HA	1.86	0.41
1:A:1147:LYS:O	1:A:1151:ALA:HB3	2.20	0.41
1:A:1162:ARG:NH2	1:A:1195:ASN:OD1	2.54	0.41
1:A:1294:ALA:HB3	1:A:1315:SER:OG	2.20	0.41
1:A:1323:ILE:HG13	1:A:1336:VAL:O	2.20	0.41
2:B:38:VAL:HG11	2:B:67:ILE:HG21	2.02	0.41
2:B:51:ASN:OD1	2:B:51:ASN:N	2.53	0.41
4:J:429:ILE:HG13	4:J:444:PHE:HB2	2.03	0.41
4:J:682:ARG:NH1	4:J:751:GLU:O	2.54	0.41
8:O:433:LYS:NZ	13:T:38:GLN:HB3	2.35	0.41
10:Q:77:ALA:HB1	10:Q:81:LEU:HD23	2.02	0.41
10:Q:94:TYR:HA	10:Q:122:ARG:HG2	2.02	0.41
11:R:74:LYS:HB2	11:R:109:ALA:HB2	2.02	0.41
11:R:112:LEU:HD23	11:R:112:LEU:HA	1.93	0.41
3:h:9:VAL:HG13	3:h:56:ALA:HA	2.02	0.41
3:h:228:ASP:OD1	3:h:231:TRP:N	2.50	0.41
3:h:334:PRO:HD2	19:g:461:MET:HB2	2.02	0.41
14:i:1119:LEU:HD12	14:i:1119:LEU:HA	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:1122:ALA:O	14:i:1126:ALA:N	2.53	0.41
4:j:565:ARG:NH2	5:k:482:ARG:HH11	2.18	0.41
15:C:718:ILE:HG12	15:C:723:TYR:HD1	1.85	0.41
16:D:264:ASN:ND2	16:D:268:THR:H	2.18	0.41
16:D:497:ASP:HA	16:D:498:PRO:HD3	1.94	0.41
16:D:643:MET:HA	16:D:646:PRO:HA	2.03	0.41
16:D:868:PHE:O	16:D:872:GLY:N	2.53	0.41
17:E:440:LYS:HA	17:E:440:LYS:HD3	1.86	0.41
17:E:518:ARG:HG3	17:E:830:ASN:HB2	2.01	0.41
17:E:1070:VAL:HA	17:E:1075:TYR:CD2	2.56	0.41
18:F:232:PHE:HA	18:F:237:TYR:CE1	2.55	0.41
18:F:254:THR:HG22	19:G:597:ASP:H	1.85	0.41
18:F:306:LEU:O	18:F:307:SER:C	2.62	0.41
14:I:939:TYR:HB2	14:I:948:ALA:HB2	2.02	0.41
14:I:1332:LEU:O	14:I:1337:GLN:N	2.51	0.41
14:I:1418:LEU:HG	14:I:1425:HIS:NE2	2.36	0.41
14:I:1443:HIS:HA	14:I:1446:ALA:HB3	2.02	0.41
20:m:365:ALA:O	20:m:368:THR:OG1	2.38	0.41
1:A:3:LYS:HA	1:A:359:PHE:HA	2.01	0.41
1:A:1320:ILE:HG23	1:A:1338:LEU:HB3	2.01	0.41
2:B:44:GLU:HG2	2:B:379:ARG:HD3	2.02	0.41
2:B:89:ASN:N	2:B:136:MET:SD	2.94	0.41
3:H:12:LEU:HD23	3:H:43:VAL:HB	2.01	0.41
3:H:242:ASP:O	3:H:246:LYS:N	2.51	0.41
4:J:4:LYS:HD3	4:J:296:GLN:HB2	2.03	0.41
7:N:274:GLN:HE22	18:F:418:LYS:HG2	1.86	0.41
8:O:487:ARG:HE	15:C:1099:GLU:HG2	1.86	0.41
9:P:425:GLU:OE1	13:T:44:ARG:NH2	2.53	0.41
9:P:491:VAL:HA	9:P:494:ILE:HG12	2.03	0.41
11:R:76:ASP:HA	11:R:109:ALA:HA	2.03	0.41
3:h:9:VAL:HG13	3:h:57:HIS:H	1.85	0.41
3:h:329:LEU:HD12	3:h:329:LEU:HA	1.75	0.41
14:i:83:ALA:HB2	14:i:89:VAL:HG22	2.03	0.41
14:i:209:LEU:HD13	14:i:217:ALA:HB2	2.01	0.41
14:i:254:ASN:HB2	14:i:257:GLY:H	1.86	0.41
14:i:379:TYR:CE2	14:i:395:PRO:HB3	2.55	0.41
4:j:322:ILE:HD11	5:k:472:ALA:HA	2.02	0.41
5:k:418:SER:HA	6:l:44:MET:SD	2.60	0.41
7:n:12:VAL:CG2	7:n:104:LEU:HD23	2.51	0.41
7:n:46:TYR:HE2	7:n:77:ALA:HB1	1.85	0.41
15:C:363:MET:N	15:C:363:MET:SD	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:523:LEU:O	16:D:524:PRO:C	2.62	0.41
16:D:612:ARG:HB3	16:D:680:PHE:CZ	2.56	0.41
16:D:729:ASP:OD1	16:D:729:ASP:N	2.53	0.41
16:D:816:LYS:HE2	16:D:816:LYS:HB2	1.93	0.41
16:D:928:LYS:HD2	16:D:938:LEU:HB2	2.02	0.41
17:E:7:ALA:C	17:E:9:VAL:H	2.28	0.41
17:E:382:GLU:HB3	17:E:385:GLU:HB3	2.02	0.41
18:F:137:LEU:HA	18:F:137:LEU:HD23	1.86	0.41
19:G:150:GLY:O	19:G:154:PHE:HB2	2.20	0.41
19:G:555:VAL:HG13	19:G:602:GLU:HG3	2.02	0.41
14:I:923:ALA:HB2	14:I:938:TYR:HD2	1.85	0.41
14:I:944:MET:HE2	14:I:944:MET:HB2	1.99	0.41
14:I:1152:LEU:HD13	14:I:1176:LYS:HG3	2.03	0.41
14:I:1621:GLU:HA	14:I:1622:PRO:HD3	1.97	0.41
18:f:318:LYS:HE3	18:f:318:LYS:HB2	1.86	0.41
18:f:518:GLN:HG3	18:f:533:LEU:HD12	2.02	0.41
18:f:574:ASP:HB3	18:f:577:VAL:HB	2.02	0.41
19:g:316:LEU:HD21	19:g:341:ALA:HB1	2.03	0.41
1:A:7:VAL:O	1:A:356:MET:N	2.54	0.41
1:A:903:ALA:O	1:A:904:ALA:C	2.64	0.41
2:B:483:VAL:HG12	2:B:491:LYS:HE3	2.02	0.41
2:B:598:ARG:NH2	2:B:639:ASP:OD2	2.53	0.41
5:K:444:LEU:HA	5:K:447:LYS:HE2	2.02	0.41
6:L:116:GLY:O	6:L:120:LEU:HG	2.20	0.41
7:N:206:GLU:HA	7:N:209:LEU:HD12	2.02	0.41
9:P:436:LEU:HD23	9:P:436:LEU:HA	1.95	0.41
9:P:449:ARG:HA	9:P:452:LYS:HG2	2.01	0.41
9:P:580:LYS:O	9:P:584:SER:OG	2.38	0.41
11:R:53:SER:HA	11:R:110:LYS:HE2	2.01	0.41
13:T:88:ILE:HD12	13:T:96:GLU:HB2	2.03	0.41
14:i:4:ARG:HE	14:i:4:ARG:HB3	1.68	0.41
14:i:80:LEU:HD23	14:i:82:ILE:HD11	2.01	0.41
14:i:632:TRP:O	14:i:633:MET:C	2.62	0.41
14:i:784:GLY:HA2	14:i:818:ARG:HE	1.86	0.41
14:i:1245:ALA:HA	14:I:1338:ARG:HD3	2.03	0.41
4:j:53:LEU:HB3	4:j:54:ASP:H	1.76	0.41
4:j:93:THR:OG1	4:j:94:GLY:N	2.54	0.41
4:j:535:VAL:HG13	4:j:661:ALA:HB2	2.02	0.41
4:j:664:ARG:HB2	4:j:667:PRO:HA	2.02	0.41
7:n:5:GLU:HG2	7:n:94:VAL:HG21	2.01	0.41
7:n:292:LYS:HG2	18:f:272:ARG:HD2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C:704:SER:HA	15:C:707:VAL:HB	2.03	0.41
16:D:612:ARG:O	16:D:615:ASP:CB	2.69	0.41
16:D:742:PHE:HD2	16:D:744:ARG:HG2	1.86	0.41
16:D:878:ILE:HG12	16:D:893:LEU:HB3	2.01	0.41
16:D:890:ALA:HB1	16:D:902:ILE:HD12	2.01	0.41
16:D:965:LEU:O	16:D:969:LYS:NZ	2.39	0.41
17:E:578:GLN:NE2	17:E:922:LEU:O	2.53	0.41
17:E:954:MET:HE3	17:E:977:LEU:HB3	2.03	0.41
18:F:237:TYR:N	18:F:237:TYR:CD1	2.88	0.41
18:F:364:ARG:NH2	20:M:468:GLU:OE2	2.54	0.41
14:I:299:TRP:CD2	14:I:306:MET:HE1	2.56	0.41
14:I:1044:GLN:O	14:I:1048:GLU:HG3	2.20	0.41
14:I:1180:ALA:HB1	14:I:1196:ILE:HD13	2.02	0.41
14:I:1404:GLN:OE1	14:I:1407:ASN:ND2	2.54	0.41
18:f:595:LEU:O	18:f:599:GLN:N	2.44	0.41
19:g:554:GLY:O	19:g:558:ILE:HG12	2.20	0.41
19:g:572:ASP:HA	19:g:575:TYR:CE2	2.56	0.41
1:A:370:HIS:H	1:A:408:LEU:HD23	1.86	0.41
1:A:414:ALA:HB3	1:A:446:ILE:HD11	2.03	0.41
2:B:391:VAL:HG11	2:B:447:VAL:HG11	2.03	0.41
2:B:993:ALA:HA	2:B:996:HIS:HB2	2.03	0.41
2:B:1028:GLU:HB3	2:B:1052:LEU:HD22	2.02	0.41
2:B:1068:SER:HA	2:B:1072:LEU:HD23	2.02	0.41
4:J:84:ASP:OD1	4:J:85:GLY:N	2.53	0.41
4:J:207:ASP:OD1	4:J:207:ASP:N	2.53	0.41
9:P:577:GLN:O	9:P:581:LYS:HB3	2.21	0.41
9:P:636:LEU:HB3	12:S:259:THR:HG21	2.03	0.41
14:i:75:PRO:HD2	14:i:121:TRP:HB3	2.03	0.41
14:i:1243:ARG:CZ	14:i:1269:GLU:HB3	2.51	0.41
4:j:317:ILE:HB	4:j:330:LEU:HD12	2.03	0.41
4:j:481:ILE:HG21	4:j:485:ARG:HE	1.85	0.41
6:l:63:GLU:O	6:l:67:LEU:N	2.39	0.41
15:C:724:ASP:HA	15:C:727:ILE:HB	2.02	0.41
16:D:497:ASP:HB3	16:D:514:ALA:HB3	2.03	0.41
16:D:665:THR:HB	16:D:668:LEU:HB3	2.02	0.41
16:D:677:ALA:HA	16:D:680:PHE:HB3	2.03	0.41
17:E:601:THR:HG23	17:E:650:VAL:HA	2.02	0.41
17:E:864:LEU:HD21	17:E:884:TRP:HE1	1.86	0.41
18:F:223:LEU:HD12	18:F:226:ASN:HB2	2.03	0.41
19:G:352:TYR:HD1	19:G:373:LEU:HD22	1.85	0.41
19:G:500:ILE:HD12	19:G:500:ILE:HA	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:39:VAL:HA	14:I:53:PHE:O	2.20	0.41
14:I:440:ASN:HB3	14:I:443:LEU:HG	2.02	0.41
14:I:962:GLN:HG2	14:I:978:TYR:HE1	1.86	0.41
14:I:1249:ASN:HA	14:I:1325:CYS:SG	2.61	0.41
14:I:1517:ARG:HH21	14:I:1745:PRO:HB2	1.85	0.41
14:I:1705:CYS:HA	14:I:1729:ALA:HA	2.02	0.41
18:f:259:ARG:HH22	18:f:287:MET:HB3	1.86	0.41
18:f:268:LEU:O	18:f:271:VAL:HG22	2.21	0.41
18:f:385:GLY:O	18:f:389:TRP:N	2.51	0.41
18:f:561:VAL:O	18:f:565:GLU:N	2.45	0.41
19:g:559:ILE:HA	19:g:606:PHE:HB2	2.02	0.41
1:A:345:GLN:O	1:A:361:ALA:N	2.53	0.41
1:A:534:PHE:CG	1:A:573:VAL:HB	2.56	0.41
1:A:555:ASN:OD1	15:C:985:GLN:NE2	2.54	0.41
1:A:718:LEU:HD12	2:B:799:VAL:HG11	2.03	0.41
2:B:37:ALA:HA	2:B:56:ILE:O	2.21	0.41
2:B:131:LYS:HG2	2:B:139:ILE:HB	2.03	0.41
2:B:399:ASP:O	2:B:400:ARG:HD2	2.20	0.41
2:B:724:PHE:HA	2:B:736:ALA:HA	2.03	0.41
2:B:1168:MET:O	2:B:1172:LEU:N	2.51	0.41
3:H:17:LYS:HE3	3:H:76:LEU:HD22	2.03	0.41
3:H:136:ASP:N	3:H:136:ASP:OD1	2.53	0.41
3:H:217:ARG:HB3	3:H:247:PHE:CZ	2.55	0.41
3:H:373:THR:HG23	12:S:306:LEU:HD22	2.03	0.41
4:J:62:TRP:CE2	4:J:78:PHE:HB3	2.55	0.41
4:J:209:LYS:HD3	4:J:225:LEU:HD12	2.03	0.41
4:J:241:LEU:HA	4:J:253:CYS:O	2.21	0.41
4:J:435:GLN:O	4:J:436:ALA:C	2.63	0.41
4:J:712:TRP:CD1	4:J:744:VAL:HG11	2.56	0.41
6:L:28:LYS:HZ3	7:N:148:ALA:HA	1.85	0.41
7:N:37:ASP:OD1	7:N:41:TRP:NE1	2.54	0.41
7:N:129:LYS:NZ	20:M:312:GLU:OE2	2.37	0.41
7:N:143:ILE:HG23	17:E:594:SER:HB3	2.03	0.41
7:N:290:MET:HE2	7:N:290:MET:HB2	1.69	0.41
8:O:494:MET:SD	15:C:1229:SER:OG	2.70	0.41
8:O:495:ARG:HH22	15:C:1110:GLN:HG2	1.86	0.41
9:P:595:TYR:CD1	10:Q:81:LEU:HD11	2.56	0.41
10:Q:30:SER:H	10:Q:47:TYR:HE1	1.67	0.41
10:Q:190:TYR:HE1	11:R:38:VAL:HG21	1.85	0.41
13:T:123:GLN:HE21	13:T:125:GLN:HA	1.86	0.41
14:i:220:ASN:O	20:m:51:SER:OG	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:i:247:GLU:CD	20:m:52:ARG:HG3	2.45	0.41
14:i:345:THR:O	14:i:351:ARG:NH1	2.49	0.41
14:i:971:GLU:O	14:I:1017:LYS:HD2	2.21	0.41
14:i:1204:MET:O	14:i:1206:SER:N	2.54	0.41
14:i:1347:THR:O	14:i:1351:ARG:N	2.49	0.41
14:i:1547:TYR:OH	14:i:1722:ASN:ND2	2.53	0.41
4:j:286:GLY:HA2	4:j:292:VAL:HA	2.02	0.41
4:j:372:LYS:NZ	4:j:391:SER:O	2.44	0.41
4:j:423:THR:OG1	4:j:467:LEU:N	2.40	0.41
4:j:587:LEU:HA	4:j:590:MET:HB2	2.01	0.41
4:j:713:TYR:HB3	4:j:717:PHE:CE2	2.56	0.41
6:l:110:SER:O	6:l:114:VAL:N	2.52	0.41
7:n:80:LYS:O	7:n:85:ARG:NH1	2.54	0.41
12:s:207:LEU:HD23	12:s:217:LYS:HG2	2.03	0.41
15:C:508:MET:HA	15:C:521:THR:HA	2.03	0.41
15:C:567:GLU:OE1	15:C:568:ARG:NH1	2.54	0.41
15:C:703:TRP:O	15:C:707:VAL:HG23	2.21	0.41
15:C:730:LEU:HD12	15:C:742:VAL:HB	2.02	0.41
15:C:924:THR:O	15:C:928:ALA:HB2	2.21	0.41
15:C:937:LEU:HD13	15:C:937:LEU:HA	1.88	0.41
16:D:5:LEU:HD23	16:D:333:ALA:HB2	2.02	0.41
16:D:134:CYS:HA	16:D:143:ILE:O	2.21	0.41
16:D:805:TRP:HZ3	16:D:823:GLU:HG3	1.86	0.41
17:E:188:GLN:HB3	17:E:222:PRO:HB2	2.02	0.41
17:E:255:ILE:HD12	17:E:255:ILE:HA	1.91	0.41
17:E:345:MET:SD	17:E:486:ARG:HB2	2.61	0.41
17:E:996:LYS:HB3	17:E:997:HIS:H	1.77	0.41
17:E:1344:GLU:HG2	17:E:1345:ILE:H	1.85	0.41
18:F:154:GLU:HA	18:F:157:MET:HG3	2.03	0.41
18:F:284:ALA:HB1	19:g:430:LEU:HD11	2.03	0.41
18:F:507:VAL:O	18:F:511:TYR:HB3	2.21	0.41
18:F:550:THR:HA	18:F:553:MET:HG3	2.02	0.41
18:F:618:TYR:HD2	18:F:628:ALA:HB2	1.86	0.41
19:G:242:ALA:O	19:G:246:LYS:HG2	2.21	0.41
19:G:298:LEU:HD13	19:G:315:LEU:HD22	2.03	0.41
19:G:555:VAL:HG11	19:G:603:ILE:HG13	2.01	0.41
19:G:596:LYS:HD3	19:G:596:LYS:HA	1.87	0.41
19:G:641:MET:HA	19:G:644:LYS:HB3	2.02	0.41
14:I:43:PHE:HA	14:I:49:LYS:HA	2.01	0.41
14:I:122:PRO:HB2	14:I:125:ARG:HB2	2.02	0.41
14:I:211:TRP:HE1	14:I:229:LEU:HD23	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:450:GLU:HG2	14:I:459:LYS:HE2	2.02	0.41
14:I:460:LYS:HZ2	14:I:483:LEU:HD21	1.85	0.41
14:I:466:ASP:OD1	14:I:466:ASP:N	2.54	0.41
14:I:706:LEU:HD13	14:I:715:ALA:HA	2.03	0.41
14:I:836:TYR:CD1	14:I:841:ALA:HB3	2.55	0.41
14:I:1705:CYS:HB3	14:I:1709:GLY:N	2.35	0.41
19:g:432:SER:O	19:g:432:SER:OG	2.39	0.41
19:g:484:LEU:HA	19:g:487:VAL:HG12	2.03	0.41
1:A:748:GLN:HG3	1:A:760:ALA:HB1	2.02	0.41
1:A:756:VAL:HG23	1:A:758:ARG:NE	2.36	0.41
2:B:673:PRO:HB3	2:B:707:PHE:HB3	2.03	0.41
3:H:101:ASN:HB2	3:H:104:TYR:HB2	2.01	0.41
3:H:149:LYS:HE2	3:H:149:LYS:HB3	1.92	0.41
3:H:212:GLN:HA	3:H:213:PRO:HD3	1.93	0.41
3:H:277:SER:OG	18:F:541:VAL:O	2.35	0.41
3:H:296:TRP:HB3	18:F:301:MET:SD	2.60	0.41
3:H:448:PHE:HB3	12:S:316:GLN:HG2	2.02	0.41
4:J:127:SER:HB2	4:J:143:GLN:HA	2.03	0.41
4:J:191:LYS:HD2	4:J:191:LYS:HA	1.89	0.41
4:J:442:ARG:HA	4:J:455:PRO:HA	2.02	0.41
4:J:535:VAL:HG11	4:J:621:ALA:HB2	2.02	0.41
4:J:635:ILE:HG13	4:J:637:GLU:HB2	2.03	0.41
5:K:475:ASP:O	5:K:479:LYS:HG2	2.21	0.41
7:N:245:GLN:H	7:N:245:GLN:HG2	1.63	0.41
7:N:289:LYS:O	7:N:290:MET:C	2.64	0.41
8:O:468:GLN:O	8:O:472:GLU:HB3	2.21	0.41
8:O:607:GLU:HG2	10:Q:137:LYS:HD3	2.03	0.41
9:P:539:THR:HG22	9:P:543:ARG:HE	1.85	0.41
10:Q:56:VAL:HG23	10:Q:73:LEU:HB2	2.03	0.41
14:i:35:SER:OG	14:i:36:THR:N	2.54	0.41
14:i:94:LEU:HD13	14:i:104:LYS:HB2	2.02	0.41
14:i:414:VAL:HG21	14:i:423:VAL:HG23	2.02	0.41
14:i:777:TYR:HB3	14:i:786:ALA:HB2	2.02	0.41
4:j:359:ASN:HB2	4:j:362:ASN:HB3	2.02	0.41
4:j:637:GLU:H	4:j:640:LYS:CB	2.33	0.41
6:l:69:ALA:C	6:l:73:ARG:HE	2.29	0.41
7:n:255:TYR:HA	18:f:641:GLN:HG3	2.02	0.41
15:C:592:LEU:HD23	16:D:368:LYS:HG2	2.03	0.41
16:D:342:GLY:O	16:D:348:LEU:HA	2.21	0.41
16:D:692:ASN:O	16:D:696:HIS:N	2.54	0.41
16:D:885:ASN:HD21	16:D:918:LYS:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1068:TYR:HB3	16:D:1097:ILE:CG1	2.37	0.41
17:E:378:ILE:HG23	17:E:446:LYS:HB2	2.03	0.41
17:E:1160:ARG:HB2	17:E:1231:GLU:HG2	2.03	0.41
17:E:1162:ARG:HG3	17:E:1188:LEU:HD21	2.03	0.41
19:G:235:LYS:HE2	19:G:235:LYS:HB3	1.85	0.41
19:G:603:ILE:HG22	19:G:604:MET:HE2	2.03	0.41
14:I:531:GLN:HG3	14:I:545:GLN:NE2	2.36	0.41
14:I:723:HIS:CD2	14:I:724:ARG:HE	2.39	0.41
19:g:211:HIS:HB2	19:g:214:LEU:HB2	2.03	0.41
2:B:7:THR:O	2:B:376:ASN:HA	2.22	0.40
2:B:266:ALA:HB1	2:B:303:LEU:HD13	2.02	0.40
2:B:392:ALA:CB	2:B:394:MET:HE2	2.45	0.40
2:B:546:LEU:HD13	2:B:567:VAL:HG21	2.03	0.40
2:B:615:VAL:O	2:B:640:CYS:HA	2.21	0.40
2:B:982:LEU:HD23	2:B:986:TYR:CE1	2.56	0.40
4:J:510:HIS:CE1	4:J:563:GLY:H	2.39	0.40
10:Q:177:ALA:O	10:Q:181:SER:CB	2.62	0.40
11:R:16:ALA:HA	11:R:47:PHE:HA	2.02	0.40
13:T:123:GLN:HB2	13:T:148:TYR:HE1	1.86	0.40
3:h:359:ALA:HB3	12:s:214:LYS:HZ2	1.86	0.40
3:h:379:LEU:HD22	3:h:399:ILE:HD12	2.03	0.40
14:i:136:GLY:O	14:i:154:HIS:ND1	2.39	0.40
14:i:399:ASP:OD1	14:i:399:ASP:N	2.53	0.40
14:i:847:ASP:OD1	14:i:848:LEU:N	2.54	0.40
14:i:1005:ASP:OD1	14:i:1005:ASP:N	2.55	0.40
14:i:1151:HIS:O	14:i:1155:ALA:N	2.51	0.40
14:i:1374:ALA:O	14:i:1378:TYR:N	2.52	0.40
4:j:554:LYS:C	4:j:556:ALA:N	2.77	0.40
7:n:45:ARG:NE	7:n:104:LEU:HD21	2.36	0.40
7:n:58:THR:HG23	7:n:61:ASP:H	1.86	0.40
15:C:342:LEU:O	15:C:352:ILE:HA	2.21	0.40
15:C:590:LEU:HD13	16:D:367:THR:HA	2.03	0.40
16:D:2:PHE:H	16:D:336:ARG:HB2	1.85	0.40
16:D:235:ASN:HB2	16:D:237:ARG:HH21	1.86	0.40
16:D:603:MET:HG3	16:D:604:GLU:N	2.36	0.40
16:D:880:CYS:O	16:D:883:LEU:HB3	2.21	0.40
16:D:908:LYS:O	16:D:912:HIS:ND1	2.54	0.40
17:E:40:PHE:HB2	17:E:59:LEU:HD21	2.02	0.40
17:E:140:MET:HE2	17:E:140:MET:HB2	1.99	0.40
17:E:557:ILE:HG12	17:E:560:MET:HE3	2.03	0.40
17:E:779:GLN:O	17:E:781:GLN:NE2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:1073:PRO:HA	17:E:1076:HIS:ND1	2.35	0.40
17:E:1320:ARG:HE	17:E:1321:TYR:N	2.18	0.40
18:F:182:GLU:HA	18:F:185:TYR:CE2	2.55	0.40
14:I:44:ASP:HB2	14:I:48:GLU:HB3	2.02	0.40
14:I:1092:ALA:HA	14:I:1095:GLN:HB2	2.01	0.40
18:f:410:LYS:O	18:f:414:PHE:N	2.51	0.40
18:f:490:GLU:OE1	18:f:493:ARG:NH1	2.54	0.40
19:g:345:LEU:HB3	19:g:349:LEU:HD12	2.03	0.40
19:g:430:LEU:O	19:g:431:TYR:C	2.64	0.40
19:g:557:ARG:HA	19:g:560:LYS:HG2	2.02	0.40
20:m:448:GLN:OE1	20:m:455:ARG:NH2	2.54	0.40
1:A:443:ILE:HG12	1:A:457:THR:HG22	2.02	0.40
1:A:816:LEU:HD22	1:A:827:LEU:HB2	2.03	0.40
1:A:936:TYR:CZ	1:A:948:LEU:HD13	2.56	0.40
1:A:1168:HIS:CE1	1:A:1330:PRO:HG2	2.57	0.40
1:A:1290:PRO:HG3	1:A:1351:ILE:HD13	2.04	0.40
4:J:106:ALA:H	4:J:124:GLU:HG2	1.86	0.40
4:J:141:LEU:HD22	4:J:171:LYS:HG3	2.04	0.40
4:J:647:VAL:HB	4:J:656:ARG:HH21	1.86	0.40
6:L:105:GLN:HA	6:L:108:GLU:HG2	2.02	0.40
8:O:594:LYS:HE2	8:O:594:LYS:HB2	1.93	0.40
9:P:640:LYS:HE2	12:S:257:VAL:HA	2.02	0.40
13:T:86:MET:HE2	13:T:141:LEU:HD13	2.03	0.40
3:h:217:ARG:NH2	3:h:249:LYS:O	2.54	0.40
3:h:225:ALA:O	3:h:231:TRP:HB2	2.21	0.40
3:h:301:ASP:C	3:h:303:SER:H	2.29	0.40
14:i:242:ASN:O	20:m:31:LYS:NZ	2.54	0.40
14:i:612:TYR:O	14:i:631:GLN:NE2	2.54	0.40
14:i:859:ILE:HA	14:i:862:GLU:HB3	2.02	0.40
4:j:115:ASP:OD1	4:j:115:ASP:N	2.43	0.40
4:j:256:MET:HE2	4:j:556:ALA:HA	2.03	0.40
15:C:40:ARG:HG3	15:C:42:LEU:HG	2.02	0.40
15:C:147:THR:HG22	15:C:187:TRP:CD2	2.56	0.40
15:C:529:GLN:HA	16:D:413:PRO:HG2	2.03	0.40
15:C:689:ASP:OD1	15:C:689:ASP:N	2.54	0.40
15:C:731:ALA:HA	15:C:739:LEU:HD22	2.02	0.40
15:C:942:VAL:HA	15:C:943:PRO:HD3	1.97	0.40
15:C:967:LEU:HD12	15:C:970:PHE:HD2	1.87	0.40
15:C:1018:PRO:O	15:C:1019:LEU:C	2.64	0.40
15:C:1078:LYS:NZ	15:C:1095:LEU:H	2.19	0.40
16:D:531:GLN:HB3	16:D:574:ASN:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:559:LEU:HD22	16:D:602:MET:HE1	2.03	0.40
16:D:663:ARG:H	16:D:663:ARG:HG2	1.72	0.40
17:E:19:ARG:HG2	17:E:290:GLU:HG2	2.03	0.40
17:E:1073:PRO:O	17:E:1074:GLY:C	2.64	0.40
18:F:227:MET:HE2	18:F:231:HIS:CE1	2.56	0.40
18:F:361:ILE:O	18:F:365:LEU:HB2	2.21	0.40
18:F:447:PHE:CZ	20:M:450:SER:HB2	2.56	0.40
18:F:536:MET:HG3	18:F:537:VAL:HG13	2.03	0.40
19:G:47:ARG:O	19:G:51:SER:OG	2.28	0.40
19:G:92:TYR:HE1	19:G:124:GLU:HG3	1.86	0.40
19:G:345:LEU:HD23	19:G:345:LEU:HA	1.95	0.40
14:I:405:HIS:CE1	14:I:439:MET:HB3	2.56	0.40
14:I:408:ASN:ND2	14:I:448:VAL:H	2.19	0.40
14:I:540:ASP:HB3	14:I:556:VAL:HG22	2.02	0.40
14:I:652:TYR:HD1	14:I:652:TYR:HA	1.82	0.40
14:I:823:TYR:HB3	14:I:828:ARG:HB2	2.03	0.40
14:I:1643:PHE:CE2	14:I:1645:ILE:HD13	2.56	0.40
20:M:23:MET:HB3	20:M:56:ALA:HB2	2.04	0.40
18:f:136:LEU:HB3	19:g:592:MET:HE1	2.04	0.40
18:f:178:GLN:HB2	19:g:596:LYS:HD3	2.03	0.40
18:f:574:ASP:O	18:f:578:LEU:HG	2.20	0.40
19:g:88:ALA:HA	19:g:91:LEU:HD12	2.01	0.40
19:g:348:ASP:HA	19:g:376:ARG:HH21	1.86	0.40
20:m:454:LYS:O	20:m:458:GLN:N	2.54	0.40
1:A:197:CYS:O	1:A:215:SER:N	2.47	0.40
1:A:340:TRP:HA	1:A:347:LEU:HA	2.04	0.40
1:A:435:GLN:HE22	1:A:466:ILE:HG22	1.86	0.40
1:A:879:GLU:HB3	1:A:883:ARG:HH12	1.87	0.40
2:B:640:CYS:O	2:B:656:TYR:HA	2.21	0.40
2:B:925:TYR:OH	2:B:936:ARG:NH2	2.54	0.40
2:B:965:ARG:HD2	15:C:1176:LEU:HD22	2.02	0.40
3:H:30:LEU:O	3:H:34:LEU:N	2.47	0.40
3:H:62:GLY:CA	3:H:89:LEU:HB2	2.45	0.40
3:H:289:ILE:H	20:M:454:LYS:HE3	1.86	0.40
4:J:12:VAL:HG11	4:J:38:HIS:NE2	2.35	0.40
4:J:287:GLY:N	4:J:291:GLY:O	2.36	0.40
4:J:591:ILE:HG13	4:J:618:MET:HE3	2.03	0.40
6:L:41:ILE:O	6:L:45:GLN:HG2	2.21	0.40
6:L:42:GLN:NE2	20:M:316:HIS:O	2.47	0.40
9:P:429:LEU:HD23	9:P:429:LEU:HA	1.89	0.40
9:P:509:ILE:HB	15:C:1029:ASN:HD21	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:h:116:ASP:OD1	3:h:182:THR:OG1	2.37	0.40
3:h:357:PRO:HA	3:h:358:PRO:HD3	1.88	0.40
14:i:58:ALA:HB2	14:i:88:ILE:HD12	2.04	0.40
14:i:535:TRP:CZ3	14:i:556:VAL:HG21	2.56	0.40
14:i:1267:GLN:HA	14:i:1270:LEU:HB2	2.02	0.40
4:j:21:GLY:HA3	4:j:62:TRP:H	1.86	0.40
4:j:467:LEU:HG	4:j:478:LEU:HD13	2.03	0.40
7:n:26:ASN:OD1	7:n:26:ASN:N	2.55	0.40
7:n:289:LYS:HB2	7:n:289:LYS:HE2	1.83	0.40
12:s:238:ASN:OD1	12:s:238:ASN:N	2.55	0.40
15:C:447:PHE:CG	16:D:905:LEU:HD12	2.56	0.40
15:C:907:GLU:O	15:C:911:LYS:HG2	2.21	0.40
15:C:1021:ASN:ND2	15:C:1025:ASP:HA	2.36	0.40
15:C:1140:ASN:C	15:C:1142:VAL:N	2.78	0.40
16:D:406:LEU:H	16:D:415:ASP:HB2	1.86	0.40
16:D:608:MET:SD	16:D:609:TYR:N	2.95	0.40
16:D:1063:ASP:O	16:D:1065:VAL:N	2.54	0.40
17:E:574:VAL:HG11	17:E:922:LEU:HD12	2.03	0.40
17:E:671:ARG:HB2	17:E:703:VAL:HB	2.04	0.40
18:F:459:ASP:HB2	18:F:486:ARG:HH21	1.87	0.40
14:I:228:ASP:HB3	14:I:234:ILE:HD11	2.03	0.40
14:I:460:LYS:HD2	14:I:501:GLY:HA3	2.03	0.40
14:I:496:GLU:O	14:I:535:TRP:NE1	2.54	0.40
14:I:692:MET:C	14:I:694:GLN:N	2.79	0.40
14:I:707:LEU:HB3	14:I:736:HIS:HB3	2.04	0.40
14:I:939:TYR:HD2	14:I:948:ALA:HB2	1.87	0.40
14:I:1628:VAL:HG21	14:I:1642:ASP:HA	2.03	0.40
18:f:375:GLU:H	18:f:375:GLU:HG2	1.76	0.40
18:f:541:VAL:H	18:f:541:VAL:HG22	1.66	0.40
1:A:79:LEU:HB3	1:A:92:TRP:HB3	2.03	0.40
1:A:683:ARG:HH11	2:B:335:PRO:HD2	1.86	0.40
1:A:769:HIS:C	1:A:771:THR:N	2.80	0.40
1:A:1212:ILE:HG12	1:A:1243:TYR:CD1	2.57	0.40
2:B:82:ASP:OD1	2:B:82:ASP:N	2.53	0.40
2:B:523:ARG:HE	2:B:525:LEU:HD11	1.87	0.40
2:B:1345:LYS:HE2	2:B:1345:LYS:HB3	1.80	0.40
3:H:110:GLY:O	3:H:188:PRO:HG3	2.22	0.40
3:H:270:LYS:HA	18:F:604:VAL:O	2.21	0.40
3:H:330:ASN:N	18:F:176:ALA:O	2.55	0.40
3:H:340:LEU:HD12	3:H:341:PRO:HD2	2.03	0.40
3:H:354:GLU:N	19:G:58:TYR:OH	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:271:ILE:HD13	4:J:287:GLY:HA2	2.03	0.40
4:J:349:VAL:HB	4:J:356:HIS:HB2	2.03	0.40
7:N:154:LEU:O	7:N:155:GLY:C	2.64	0.40
7:N:166:ARG:HG3	20:M:345:LEU:HD22	2.03	0.40
8:O:587:GLN:O	8:O:591:MET:CB	2.70	0.40
8:O:613:GLU:O	8:O:616:THR:N	2.55	0.40
10:Q:167:SER:OG	10:Q:173:LYS:NZ	2.54	0.40
3:h:61:LEU:HD12	3:h:61:LEU:HA	1.87	0.40
3:h:120:ARG:NH2	7:n:257:ASP:OD1	2.55	0.40
3:h:272:LEU:HB2	3:h:275:THR:HA	2.02	0.40
14:i:612:TYR:HB3	14:i:631:GLN:HG3	2.02	0.40
14:i:1498:GLN:O	14:i:1502:HIS:N	2.52	0.40
14:i:1556:ALA:HB2	14:i:1571:ASN:HB2	2.04	0.40
4:j:200:LEU:HD11	4:j:220:LEU:HD21	2.03	0.40
4:j:425:SER:OG	4:j:467:LEU:HB3	2.21	0.40
4:j:439:THR:HG23	4:j:457:GLN:HB3	2.04	0.40
7:n:8:SER:CB	7:n:98:LEU:HB3	2.51	0.40
15:C:640:MET:O	15:C:645:ARG:NE	2.53	0.40
15:C:748:LYS:HD2	15:C:748:LYS:HA	1.80	0.40
15:C:911:LYS:HB3	15:C:917:PHE:CZ	2.56	0.40
15:C:933:LEU:HA	15:C:936:LEU:HB2	2.03	0.40
15:C:965:PHE:CD1	15:C:995:ILE:HD11	2.55	0.40
15:C:1013:CYS:HB3	15:C:1111:MET:O	2.22	0.40
15:C:1117:THR:OG1	15:C:1118:ILE:N	2.54	0.40
16:D:340:LYS:NZ	16:D:352:PHE:O	2.55	0.40
16:D:377:VAL:HG11	16:D:394:THR:HG21	2.03	0.40
16:D:612:ARG:NH1	16:D:690:TRP:HH2	2.19	0.40
16:D:777:LEU:HA	16:D:780:GLU:HB3	2.02	0.40
16:D:1060:ASP:OD1	16:D:1060:ASP:N	2.53	0.40
17:E:501:GLU:HA	17:E:502:PRO:HD3	1.94	0.40
17:E:713:GLY:HA3	18:F:630:PRO:HG3	2.03	0.40
17:E:1140:ALA:O	17:E:1144:ALA:HB2	2.22	0.40
18:F:266:ILE:O	18:F:269:SER:OG	2.36	0.40
18:F:277:PRO:HB3	18:F:280:LEU:HD12	2.04	0.40
19:G:263:LEU:HD23	19:G:263:LEU:HA	1.89	0.40
14:I:171:ASN:HB2	14:I:211:TRP:CH2	2.57	0.40
14:I:179:GLY:O	14:I:202:HIS:N	2.55	0.40
14:I:402:GLU:HG3	14:I:414:VAL:HG13	2.03	0.40
14:I:1706:VAL:HG23	14:I:1727:LEU:HD13	2.02	0.40
20:M:53:LEU:HB3	20:M:56:ALA:HB3	2.02	0.40
20:M:423:THR:HA	20:M:426:LYS:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:g:320:CYS:HA	19:g:325:GLY:HA2	2.02	0.40
20:m:91:ASP:OD1	20:m:91:ASP:N	2.53	0.40
20:m:328:LYS:HE2	20:m:328:LYS:HB3	1.87	0.40
1:A:31:ALA:HB2	1:A:37:VAL:HG22	2.02	0.40
1:A:68:ALA:HB3	1:A:82:LEU:HG	2.03	0.40
1:A:153:ILE:HG12	1:A:168:GLY:HA2	2.03	0.40
1:A:314:ASP:HB2	1:A:322:ILE:HD11	2.02	0.40
1:A:729:ARG:HB3	15:C:977:THR:O	2.22	0.40
1:A:1182:HIS:CD2	1:A:1216:ARG:HD2	2.56	0.40
2:B:396:VAL:HG12	2:B:678:ASN:HD22	1.86	0.40
2:B:598:ARG:HG2	2:B:619:PRO:HG3	2.03	0.40
3:H:22:THR:H	20:m:463:LEU:HD13	1.87	0.40
4:J:111:ARG:NH1	4:J:152:VAL:HG22	2.36	0.40
4:J:185:HIS:NE2	4:J:203:THR:O	2.53	0.40
4:J:602:LEU:HD13	6:L:114:VAL:HG22	2.03	0.40
7:N:56:ILE:HA	7:N:61:ASP:HB2	2.03	0.40
8:O:495:ARG:HA	8:O:498:GLU:HB2	2.03	0.40
3:h:12:LEU:HD23	3:h:12:LEU:HA	1.77	0.40
3:h:331:LEU:HD23	3:h:331:LEU:HA	1.88	0.40
14:i:30:ARG:HH21	14:i:95:VAL:HG13	1.87	0.40
14:i:91:ILE:HG13	14:i:110:PHE:HD2	1.87	0.40
14:i:265:TYR:C	14:i:267:ARG:H	2.29	0.40
14:i:270:MET:O	14:i:283:ALA:N	2.38	0.40
14:i:293:ALA:O	14:i:311:MET:N	2.52	0.40
14:i:1220:LYS:HA	14:I:1338:ARG:HD2	2.04	0.40
14:i:1229:PHE:HA	14:i:1232:ALA:HB3	2.03	0.40
14:i:1433:TYR:CG	14:i:1441:LYS:HD2	2.57	0.40
4:j:16:LEU:HD13	7:n:11:GLU:HA	2.03	0.40
4:j:19:ALA:HB3	4:j:31:CYS:HB2	2.02	0.40
4:j:22:TRP:CZ2	4:j:277:THR:HG22	2.56	0.40
4:j:551:ASP:OD1	4:j:551:ASP:N	2.52	0.40
5:k:488:MET:HA	5:k:491:GLN:HE21	1.87	0.40
6:l:99:GLU:OE2	6:l:103:ARG:NH1	2.55	0.40
15:C:609:ARG:HD3	15:C:609:ARG:HA	1.84	0.40
16:D:259:VAL:HG23	16:D:260:LYS:HE2	2.04	0.40
16:D:354:ARG:HD2	16:D:357:ARG:HD2	2.04	0.40
16:D:659:THR:HG22	16:D:660:ARG:HG2	2.03	0.40
17:E:112:HIS:CE1	17:E:113:LEU:HG	2.57	0.40
17:E:244:LEU:HA	17:E:244:LEU:HD23	1.73	0.40
17:E:340:ALA:O	17:E:344:LEU:HG	2.21	0.40
17:E:436:LEU:HD23	17:E:439:LEU:HD23	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:685:ILE:HD12	17:E:688:ALA:HB3	2.03	0.40
17:E:1312:ALA:HB1	17:E:1347:GLU:HB2	2.04	0.40
18:F:196:HIS:HB3	18:F:208:TYR:HE2	1.86	0.40
18:F:437:VAL:HA	18:F:440:ARG:HB3	2.03	0.40
18:F:450:PHE:HZ	18:F:485:GLU:HG3	1.86	0.40
18:F:684:VAL:O	18:F:688:SER:HB2	2.22	0.40
19:G:85:LEU:HD13	19:G:110:HIS:CB	2.36	0.40
19:G:113:ALA:O	19:G:116:THR:HG22	2.21	0.40
14:I:770:TYR:HE2	14:I:793:VAL:HB	1.87	0.40
14:I:821:GLU:HG3	14:I:836:TYR:HE1	1.85	0.40
20:M:59:LEU:HD23	20:M:59:LEU:HA	1.86	0.40
19:g:73:LEU:HD23	19:g:77:TYR:CD2	2.57	0.40
19:g:517:LYS:HA	19:g:520:GLU:CD	2.46	0.40
19:g:558:ILE:HD12	19:g:580:CYS:HA	2.03	0.40
20:m:29:LYS:HB3	20:m:139:LEU:HD11	2.04	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	1365/1367 (100%)	1263 (92%)	99 (7%)	3 (0%)	43	78
2	B	1372/1409 (97%)	1244 (91%)	122 (9%)	6 (0%)	30	67
3	H	452/454 (100%)	361 (80%)	80 (18%)	11 (2%)	4	27
3	h	438/454 (96%)	370 (84%)	63 (14%)	5 (1%)	11	46
4	J	763/765 (100%)	652 (86%)	107 (14%)	4 (0%)	24	63
4	j	763/765 (100%)	658 (86%)	101 (13%)	4 (0%)	24	63
5	K	104/510 (20%)	101 (97%)	3 (3%)	0	100	100
5	k	104/510 (20%)	100 (96%)	4 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	L	112/135 (83%)	111 (99%)	1 (1%)	0	100	100
6	l	112/135 (83%)	107 (96%)	5 (4%)	0	100	100
7	N	301/443 (68%)	267 (89%)	32 (11%)	2 (1%)	18	56
7	n	301/443 (68%)	274 (91%)	25 (8%)	2 (1%)	18	56
8	O	297/641 (46%)	285 (96%)	12 (4%)	0	100	100
9	P	304/683 (44%)	288 (95%)	13 (4%)	3 (1%)	12	49
10	Q	202/204 (99%)	175 (87%)	25 (12%)	2 (1%)	12	49
11	R	134/189 (71%)	119 (89%)	13 (10%)	2 (2%)	8	40
12	S	131/344 (38%)	110 (84%)	19 (14%)	2 (2%)	8	40
12	s	139/344 (40%)	131 (94%)	8 (6%)	0	100	100
13	T	190/192 (99%)	178 (94%)	11 (6%)	1 (0%)	24	63
14	I	1710/1755 (97%)	1505 (88%)	191 (11%)	14 (1%)	16	54
14	i	1753/1755 (100%)	1554 (89%)	191 (11%)	8 (0%)	24	63
15	C	1206/1239 (97%)	1076 (89%)	120 (10%)	10 (1%)	16	54
16	D	1017/1224 (83%)	872 (86%)	136 (13%)	9 (1%)	14	51
17	E	1321/1355 (98%)	1148 (87%)	165 (12%)	8 (1%)	21	59
18	F	535/782 (68%)	468 (88%)	60 (11%)	7 (1%)	9	42
18	f	534/782 (68%)	470 (88%)	62 (12%)	2 (0%)	30	67
19	G	613/647 (95%)	567 (92%)	46 (8%)	0	100	100
19	g	613/647 (95%)	544 (89%)	67 (11%)	2 (0%)	36	72
20	M	305/469 (65%)	285 (93%)	20 (7%)	0	100	100
20	m	305/469 (65%)	274 (90%)	29 (10%)	2 (1%)	18	56
All	All	17496/21111 (83%)	15557 (89%)	1830 (10%)	109 (1%)	23	59

All (109) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	H	297	THR
3	H	412	HIS
4	J	315	MET
9	P	525	LYS
3	h	187	LYS
3	h	339	PRO
14	i	1205	VAL

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Mol	Chain	Res	Type
15	C	692	SER
17	E	66	SER
17	E	890	VAL
17	E	1102	ASP
18	F	247	ALA
14	I	293	ALA
14	I	698	GLN
14	I	1690	GLU
3	H	62	GLY
3	H	136	ASP
4	J	643	PHE
12	S	226	ASN
12	S	228	ILE
3	h	327	GLY
3	h	329	LEU
14	i	658	ILE
4	j	555	SER
15	C	554	ILE
15	C	694	GLN
16	D	691	ARG
16	D	890	ALA
16	D	1077	TYR
18	F	303	ASN
14	I	1450	GLY
14	I	1451	PRO
14	I	1453	VAL
19	g	523	SER
2	B	675	LEU
3	H	64	PRO
3	H	159	PHE
3	H	271	LEU
4	J	313	ASP
7	N	19	PRO
9	P	460	THR
10	Q	44	LEU
11	R	44	PRO
14	i	251	CYS
14	i	912	PRO
4	j	342	LEU
15	C	311	THR
15	C	557	PRO
16	D	619	PRO

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Mol	Chain	Res	Type
16	D	654	MET
16	D	1095	PRO
18	F	593	LYS
14	I	1240	LYS
14	I	1711	PRO
18	f	439	ALA
18	f	446	ALA
20	m	467	GLU
20	m	468	GLU
1	A	770	TRP
2	B	775	ALA
3	H	187	LYS
4	J	314	ASP
7	N	16	LEU
14	i	266	ASN
14	i	1271	LEU
15	C	918	ARG
17	E	188	GLN
14	I	1035	PRO
14	I	1392	GLY
14	I	1563	GLY
14	I	1650	TYR
1	A	1097	ASP
2	B	238	THR
2	B	571	GLU
2	B	673	PRO
2	B	984	LYS
3	H	133	LEU
3	H	443	PRO
10	Q	171	PRO
11	R	43	PHE
13	T	9	ALA
3	h	44	ASP
14	i	660	LYS
4	j	690	LEU
15	C	1018	PRO
16	D	523	LEU
16	D	1096	SER
17	E	142	PRO
17	E	1072	ASP
18	F	449	TYR
18	F	638	ILE

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Mol	Chain	Res	Type
14	I	782	LEU
19	g	525	GLN
9	P	461	GLU
4	j	528	TYR
7	n	234	ARG
7	n	235	PRO
15	C	916	PRO
1	A	517	VAL
16	D	1064	PRO
17	E	1307	VAL
3	H	355	PRO
18	F	311	GLY
15	C	697	ILE
17	E	1325	VAL
15	C	938	PRO
18	F	291	PRO
14	i	556	VAL
14	I	1575	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	1119/1119 (100%)	1102 (98%)	17 (2%)	57	72
2	B	1136/1162 (98%)	1124 (99%)	12 (1%)	65	76
3	H	388/388 (100%)	366 (94%)	22 (6%)	18	40
3	h	377/388 (97%)	357 (95%)	20 (5%)	20	41
4	J	648/648 (100%)	629 (97%)	19 (3%)	37	58
4	j	648/648 (100%)	624 (96%)	24 (4%)	30	51
5	K	90/401 (22%)	89 (99%)	1 (1%)	65	76
5	k	90/401 (22%)	89 (99%)	1 (1%)	65	76
6	L	101/120 (84%)	99 (98%)	2 (2%)	48	66
6	l	101/120 (84%)	99 (98%)	2 (2%)	48	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	N	261/358 (73%)	243 (93%)	18 (7%)	14	36
7	n	261/358 (73%)	253 (97%)	8 (3%)	35	56
8	O	260/526 (49%)	254 (98%)	6 (2%)	44	64
9	P	262/581 (45%)	257 (98%)	5 (2%)	50	67
10	Q	176/176 (100%)	171 (97%)	5 (3%)	38	60
11	R	121/147 (82%)	117 (97%)	4 (3%)	33	55
12	S	114/288 (40%)	106 (93%)	8 (7%)	14	35
12	s	128/288 (44%)	128 (100%)	0	100	100
13	T	159/159 (100%)	156 (98%)	3 (2%)	50	67
14	I	1405/1431 (98%)	1362 (97%)	43 (3%)	35	56
14	i	1431/1431 (100%)	1394 (97%)	37 (3%)	40	62
15	C	1020/1035 (99%)	1013 (99%)	7 (1%)	76	81
16	D	865/1005 (86%)	844 (98%)	21 (2%)	43	64
17	E	1092/1114 (98%)	1059 (97%)	33 (3%)	36	57
18	F	457/627 (73%)	440 (96%)	17 (4%)	30	51
18	f	456/627 (73%)	432 (95%)	24 (5%)	20	41
19	G	534/558 (96%)	524 (98%)	10 (2%)	50	67
19	g	534/558 (96%)	524 (98%)	10 (2%)	50	67
20	M	268/381 (70%)	264 (98%)	4 (2%)	57	72
20	m	268/381 (70%)	260 (97%)	8 (3%)	36	57
All	All	14770/17424 (85%)	14379 (97%)	391 (3%)	41	62

All (391) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	452	GLN
1	A	480	VAL
1	A	481	ILE
1	A	486	GLN
1	A	489	ASN
1	A	513	LEU
1	A	516	ASP
1	A	518	THR
1	A	740	LEU
1	A	756	VAL

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Mol	Chain	Res	Type
1	A	758	ARG
1	A	763	MET
1	A	907	MET
1	A	931	GLU
1	A	1100	THR
1	A	1102	ASP
1	A	1348	LEU
2	B	136	MET
2	B	228	THR
2	B	311	LEU
2	B	396	VAL
2	B	535	HIS
2	B	550	LYS
2	B	704	MET
2	B	712	ASP
2	B	718	ARG
2	B	937	ILE
2	B	1168	MET
2	B	1195	MET
3	H	49	THR
3	H	50	LEU
3	H	53	LEU
3	H	61	LEU
3	H	75	MET
3	H	111	MET
3	H	119	VAL
3	H	134	ILE
3	H	185	VAL
3	H	186	GLN
3	H	223	SER
3	H	268	ASP
3	H	269	LEU
3	H	270	LYS
3	H	304	LEU
3	H	305	PHE
3	H	329	LEU
3	H	355	PRO
3	H	361	GLU
3	H	362	LEU
3	H	364	ASP
3	H	365	LEU
4	J	3	LEU

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Mol	Chain	Res	Type
4	J	67	SER
4	J	111	ARG
4	J	113	SER
4	J	252	LEU
4	J	281	THR
4	J	283	LEU
4	J	311	VAL
4	J	315	MET
4	J	336	ARG
4	J	431	VAL
4	J	467	LEU
4	J	473	ILE
4	J	474	ASN
4	J	477	GLN
4	J	535	VAL
4	J	629	GLU
4	J	643	PHE
4	J	688	ILE
5	K	449	MET
6	L	66	LYS
6	L	123	GLN
7	N	16	LEU
7	N	20	ARG
7	N	87	TYR
7	N	94	VAL
7	N	95	LYS
7	N	98	LEU
7	N	99	LYS
7	N	106	LYS
7	N	110	LYS
7	N	154	LEU
7	N	157	GLU
7	N	159	GLU
7	N	161	ARG
7	N	286	ARG
7	N	287	LEU
7	N	288	LYS
7	N	289	LYS
7	N	290	MET
8	O	371	GLU
8	O	377	LYS
8	O	378	LYS

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Mol	Chain	Res	Type
8	O	560	LEU
8	O	561	LEU
8	O	562	ARG
9	P	461	GLU
9	P	525	LYS
9	P	526	TYR
9	P	527	LEU
9	P	569	HIS
10	Q	43	PHE
10	Q	94	TYR
10	Q	117	LEU
10	Q	118	LEU
10	Q	129	LEU
11	R	46	GLU
11	R	115	ILE
11	R	117	LEU
11	R	118	GLN
12	S	225	ILE
12	S	226	ASN
12	S	230	LYS
12	S	232	LYS
12	S	273	LEU
12	S	280	ARG
12	S	281	LEU
12	S	285	LEU
13	T	21	LEU
13	T	85	LEU
13	T	86	MET
3	h	1	MET
3	h	58	ILE
3	h	60	VAL
3	h	88	ILE
3	h	187	LYS
3	h	218	ILE
3	h	241	MET
3	h	246	LYS
3	h	248	LEU
3	h	281	LYS
3	h	282	LEU
3	h	295	ASP
3	h	296	TRP
3	h	299	LEU

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Mol	Chain	Res	Type
3	h	329	LEU
3	h	337	GLU
3	h	338	THR
3	h	339	PRO
3	h	340	LEU
3	h	361	GLU
14	i	224	VAL
14	i	240	SER
14	i	243	ASP
14	i	244	GLU
14	i	245	VAL
14	i	246	ARG
14	i	247	GLU
14	i	250	THR
14	i	253	PHE
14	i	414	VAL
14	i	422	ILE
14	i	527	LEU
14	i	555	SER
14	i	558	LYS
14	i	634	GLN
14	i	660	LYS
14	i	689	ARG
14	i	692	MET
14	i	697	LYS
14	i	900	PHE
14	i	902	LYS
14	i	911	ASP
14	i	916	MET
14	i	972	SER
14	i	1104	LEU
14	i	1107	ASP
14	i	1158	LEU
14	i	1204	MET
14	i	1206	SER
14	i	1207	GLU
14	i	1250	ASP
14	i	1270	LEU
14	i	1291	LYS
14	i	1517	ARG
14	i	1519	MET
14	i	1520	MET

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Mol	Chain	Res	Type
14	i	1522	ARG
4	j	222	GLN
4	j	302	LEU
4	j	304	ASP
4	j	309	VAL
4	j	342	LEU
4	j	378	LEU
4	j	380	GLN
4	j	385	PHE
4	j	396	ILE
4	j	424	LEU
4	j	515	MET
4	j	516	LEU
4	j	519	MET
4	j	537	LYS
4	j	554	LYS
4	j	581	SER
4	j	640	LYS
4	j	643	PHE
4	j	645	ARG
4	j	646	LYS
4	j	647	VAL
4	j	689	LYS
4	j	690	LEU
4	j	735	GLU
5	k	499	LEU
6	l	124	LYS
6	l	125	LEU
7	n	25	GLU
7	n	28	ARG
7	n	29	VAL
7	n	42	LEU
7	n	235	PRO
7	n	238	MET
7	n	243	ARG
7	n	294	LEU
15	C	295	THR
15	C	310	MET
15	C	877	ASN
15	C	937	LEU
15	C	940	ARG
15	C	941	GLU

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Mol	Chain	Res	Type
15	C	942	VAL
16	D	161	LEU
16	D	238	MET
16	D	260	LYS
16	D	269	ILE
16	D	429	THR
16	D	503	THR
16	D	506	ASP
16	D	508	VAL
16	D	511	ILE
16	D	525	HIS
16	D	526	LEU
16	D	603	MET
16	D	617	GLU
16	D	619	PRO
16	D	660	ARG
16	D	690	TRP
16	D	788	LEU
16	D	1041	TYR
16	D	1060	ASP
16	D	1076	PHE
16	D	1102	ARG
17	E	6	LEU
17	E	111	LEU
17	E	144	GLN
17	E	146	LEU
17	E	195	LYS
17	E	209	VAL
17	E	210	LEU
17	E	228	THR
17	E	239	GLN
17	E	279	LEU
17	E	458	GLU
17	E	588	LEU
17	E	599	ARG
17	E	610	LYS
17	E	612	LEU
17	E	617	LYS
17	E	638	LEU
17	E	641	GLN
17	E	796	PHE
17	E	804	ILE

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Mol	Chain	Res	Type
17	E	887	LEU
17	E	890	VAL
17	E	1071	MET
17	E	1072	ASP
17	E	1237	ARG
17	E	1251	LYS
17	E	1256	GLN
17	E	1280	MET
17	E	1306	GLN
17	E	1310	LYS
17	E	1331	VAL
17	E	1333	LYS
17	E	1335	PHE
18	F	129	MET
18	F	236	LYS
18	F	239	SER
18	F	241	ILE
18	F	242	LYS
18	F	243	MET
18	F	246	MET
18	F	254	THR
18	F	266	ILE
18	F	286	VAL
18	F	287	MET
18	F	319	LEU
18	F	373	ILE
18	F	421	ASP
18	F	422	LYS
18	F	595	LEU
18	F	634	LEU
19	G	87	TYR
19	G	104	VAL
19	G	112	LYS
19	G	116	THR
19	G	144	ASP
19	G	233	THR
19	G	235	LYS
19	G	278	THR
19	G	473	TYR
19	G	495	LEU
14	I	69	ARG
14	I	71	MET

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Mol	Chain	Res	Type
14	I	120	VAL
14	I	291	PHE
14	I	640	LEU
14	I	724	ARG
14	I	726	GLU
14	I	778	LEU
14	I	779	LYS
14	I	782	LEU
14	I	846	ILE
14	I	867	TRP
14	I	944	MET
14	I	969	LEU
14	I	970	THR
14	I	1014	LYS
14	I	1015	ARG
14	I	1018	MET
14	I	1147	LEU
14	I	1217	VAL
14	I	1239	LEU
14	I	1240	LYS
14	I	1241	MET
14	I	1246	ARG
14	I	1247	MET
14	I	1271	LEU
14	I	1343	ASP
14	I	1452	GLU
14	I	1505	GLN
14	I	1548	LEU
14	I	1565	LYS
14	I	1567	ILE
14	I	1577	ARG
14	I	1590	TYR
14	I	1628	VAL
14	I	1629	ILE
14	I	1630	GLU
14	I	1650	TYR
14	I	1656	ARG
14	I	1690	GLU
14	I	1692	ASN
14	I	1707	VAL
14	I	1746	VAL
20	M	31	LYS

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Mol	Chain	Res	Type
20	M	43	LYS
20	M	45	PRO
20	M	47	ARG
18	f	235	LYS
18	f	250	GLN
18	f	272	ARG
18	f	273	MET
18	f	368	LYS
18	f	372	LEU
18	f	373	ILE
18	f	374	SER
18	f	375	GLU
18	f	376	LYS
18	f	436	ARG
18	f	437	VAL
18	f	438	LYS
18	f	440	ARG
18	f	443	THR
18	f	449	TYR
18	f	450	PHE
18	f	466	LEU
18	f	519	ARG
18	f	520	LEU
18	f	521	ASN
18	f	642	GLU
18	f	647	LEU
18	f	649	VAL
19	g	117	LEU
19	g	315	LEU
19	g	317	LEU
19	g	334	LEU
19	g	421	MET
19	g	428	MET
19	g	490	ILE
19	g	521	ARG
19	g	523	SER
19	g	561	SER
20	m	42	LYS
20	m	43	LYS
20	m	44	LYS
20	m	47	ARG
20	m	408	LYS

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Mol	Chain	Res	Type
20	m	412	ILE
20	m	468	GLU
20	m	469	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (258) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	38	ASN
1	A	78	GLN
1	A	86	ASN
1	A	159	ASN
1	A	282	HIS
1	A	320	ASN
1	A	435	GLN
1	A	452	GLN
1	A	486	GLN
1	A	489	ASN
1	A	612	GLN
1	A	730	ASN
1	A	824	GLN
1	A	916	GLN
1	A	1028	GLN
1	A	1139	HIS
1	A	1148	GLN
1	A	1153	ASN
1	A	1168	HIS
1	A	1340	HIS
1	A	1345	GLN
2	B	124	ASN
2	B	225	ASN
2	B	279	ASN
2	B	292	GLN
2	B	330	ASN
2	B	332	ASN
2	B	346	GLN
2	B	405	ASN
2	B	418	GLN
2	B	479	ASN
2	B	500	HIS
2	B	535	HIS
2	B	602	GLN
2	B	711	GLN

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Mol	Chain	Res	Type
2	B	821	ASN
2	B	854	GLN
2	B	941	GLN
2	B	1098	GLN
2	B	1297	GLN
3	H	82	ASN
3	H	257	ASN
3	H	287	GLN
3	H	405	GLN
3	H	433	GLN
4	J	11	ASN
4	J	251	GLN
4	J	296	GLN
4	J	448	GLN
4	J	496	HIS
4	J	559	GLN
4	J	564	ASN
4	J	715	GLN
4	J	716	GLN
4	J	741	GLN
5	K	430	GLN
5	K	435	ASN
5	K	480	GLN
6	L	31	GLN
6	L	39	ASN
7	N	26	ASN
7	N	71	GLN
7	N	205	ASN
8	O	461	GLN
8	O	485	GLN
8	O	537	GLN
8	O	597	ASN
8	O	633	ASN
9	P	383	ASN
9	P	495	ASN
9	P	503	GLN
9	P	517	GLN
9	P	535	ASN
9	P	571	GLN
9	P	613	GLN
10	Q	143	GLN
10	Q	169	ASN

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Mol	Chain	Res	Type
11	R	66	ASN
11	R	103	HIS
11	R	127	ASN
13	T	28	GLN
13	T	91	ASN
3	h	29	GLN
3	h	140	ASN
3	h	212	GLN
3	h	251	HIS
3	h	287	GLN
3	h	328	GLN
3	h	381	ASN
14	i	28	ASN
14	i	61	ASN
14	i	222	ASN
14	i	242	ASN
14	i	287	GLN
14	i	408	ASN
14	i	499	GLN
14	i	634	GLN
14	i	638	GLN
14	i	696	ASN
14	i	834	GLN
14	i	1021	GLN
14	i	1267	GLN
14	i	1319	GLN
14	i	1335	ASN
14	i	1525	ASN
14	i	1610	ASN
14	i	1631	ASN
14	i	1722	ASN
14	i	1750	GLN
4	j	7	GLN
4	j	134	ASN
4	j	167	ASN
4	j	222	GLN
4	j	296	GLN
4	j	308	GLN
4	j	320	ASN
4	j	354	GLN
4	j	384	HIS
4	j	426	ASN

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Mol	Chain	Res	Type
4	j	434	GLN
4	j	448	GLN
4	j	692	ASN
4	j	707	GLN
4	j	715	GLN
5	k	430	GLN
6	l	45	GLN
7	n	71	GLN
7	n	82	ASN
7	n	92	ASN
7	n	126	ASN
7	n	261	ASN
12	s	310	ASN
15	C	32	GLN
15	C	193	ASN
15	C	290	GLN
15	C	301	GLN
15	C	386	HIS
15	C	532	GLN
15	C	709	ASN
15	C	877	ASN
15	C	950	ASN
15	C	976	GLN
15	C	1098	ASN
15	C	1110	GLN
16	D	117	ASN
16	D	296	ASN
16	D	346	ASN
16	D	432	HIS
16	D	445	GLN
16	D	696	HIS
16	D	856	GLN
16	D	885	ASN
16	D	886	GLN
16	D	897	HIS
17	E	26	ASN
17	E	80	HIS
17	E	137	GLN
17	E	175	HIS
17	E	178	GLN
17	E	253	GLN
17	E	274	GLN

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Mol	Chain	Res	Type
17	E	361	GLN
17	E	447	GLN
17	E	496	GLN
17	E	524	ASN
17	E	537	HIS
17	E	544	ASN
17	E	608	GLN
17	E	630	ASN
17	E	641	GLN
17	E	642	GLN
17	E	781	GLN
17	E	836	GLN
17	E	876	ASN
17	E	878	GLN
17	E	913	GLN
17	E	943	GLN
17	E	981	ASN
17	E	1017	HIS
17	E	1041	GLN
17	E	1087	ASN
17	E	1088	ASN
17	E	1108	GLN
17	E	1131	ASN
17	E	1223	GLN
17	E	1226	GLN
17	E	1256	GLN
17	E	1278	GLN
17	E	1306	GLN
18	F	172	GLN
18	F	190	ASN
18	F	198	ASN
18	F	404	ASN
18	F	518	GLN
18	F	546	GLN
18	F	596	HIS
18	F	602	HIS
18	F	608	ASN
18	F	676	ASN
19	G	27	GLN
19	G	80	ASN
19	G	111	GLN
19	G	199	HIS

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Mol	Chain	Res	Type
19	G	504	GLN
14	I	108	ASN
14	I	369	HIS
14	I	531	GLN
14	I	534	GLN
14	I	694	GLN
14	I	698	GLN
14	I	722	ASN
14	I	723	HIS
14	I	840	HIS
14	I	880	HIS
14	I	1076	GLN
14	I	1151	HIS
14	I	1188	GLN
14	I	1257	GLN
14	I	1473	GLN
14	I	1486	GLN
14	I	1505	GLN
14	I	1525	ASN
14	I	1692	ASN
14	I	1750	GLN
20	M	143	HIS
20	M	353	ASN
20	M	429	ASN
20	M	433	HIS
18	f	162	ASN
18	f	198	ASN
18	f	214	ASN
18	f	231	HIS
18	f	294	GLN
18	f	298	ASN
18	f	404	ASN
18	f	444	ASN
18	f	497	ASN
18	f	546	GLN
18	f	608	ASN
18	f	668	GLN
18	f	670	HIS
18	f	672	GLN
19	g	111	GLN
19	g	148	ASN
19	g	167	ASN

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Mol	Chain	Res	Type
19	g	454	ASN
19	g	480	ASN
19	g	494	ASN
19	g	504	GLN
19	g	505	ASN
19	g	533	HIS
19	g	587	ASN
19	g	591	HIS
19	g	613	HIS
20	m	374	GLN
20	m	378	ASN
20	m	429	ASN
20	m	433	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

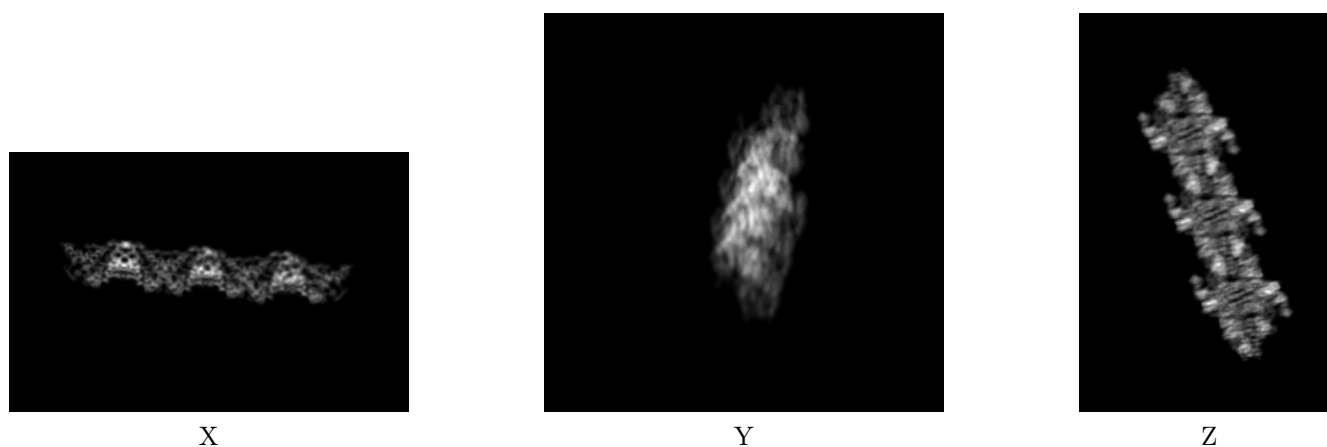
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19515. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

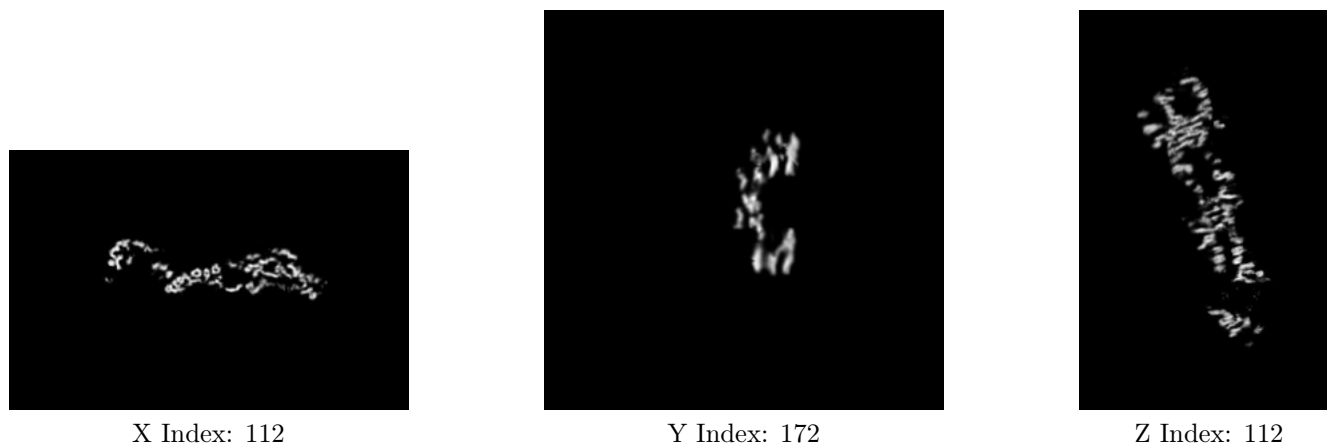
6.1.1 Primary map



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

6.2 Central slices [i](#)

6.2.1 Primary map



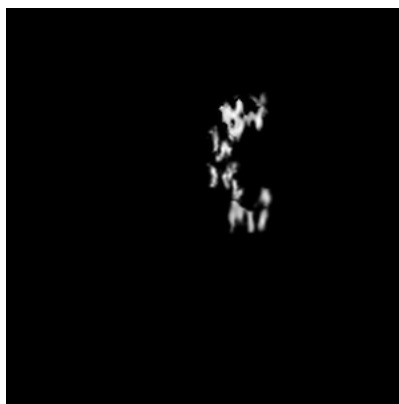
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

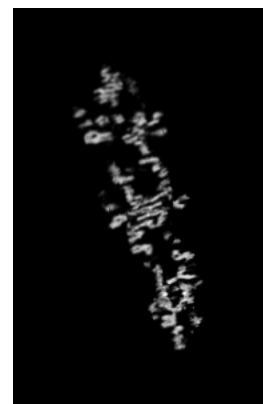
6.3.1 Primary map



X Index: 117



Y Index: 104

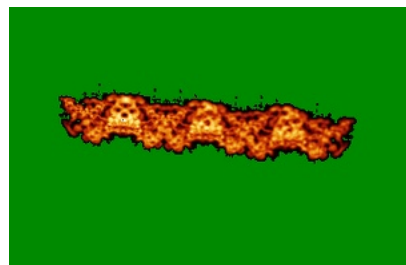


Z Index: 117

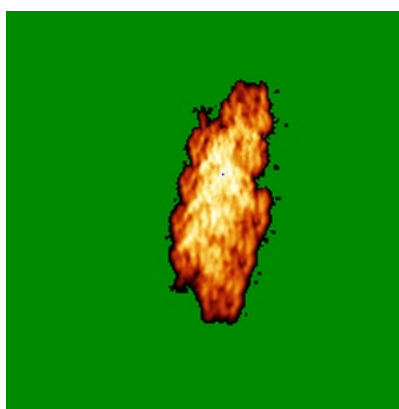
The images above show the largest variance slices of the map in three orthogonal directions.

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

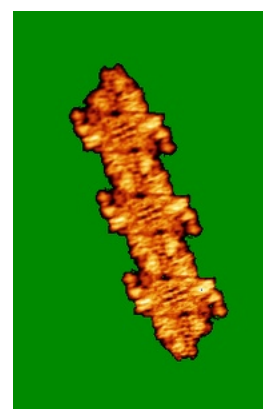
6.4.1 Primary map



X



Y

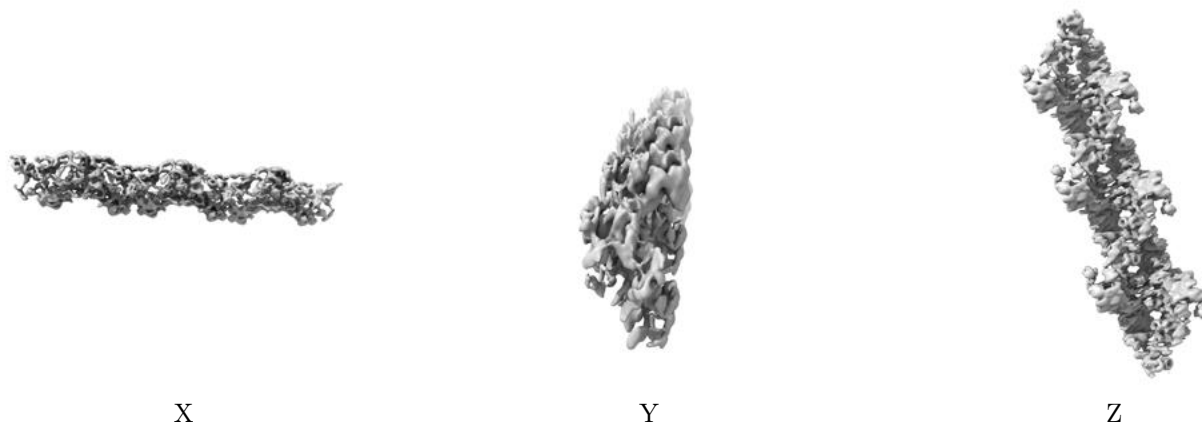


Z

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 4.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

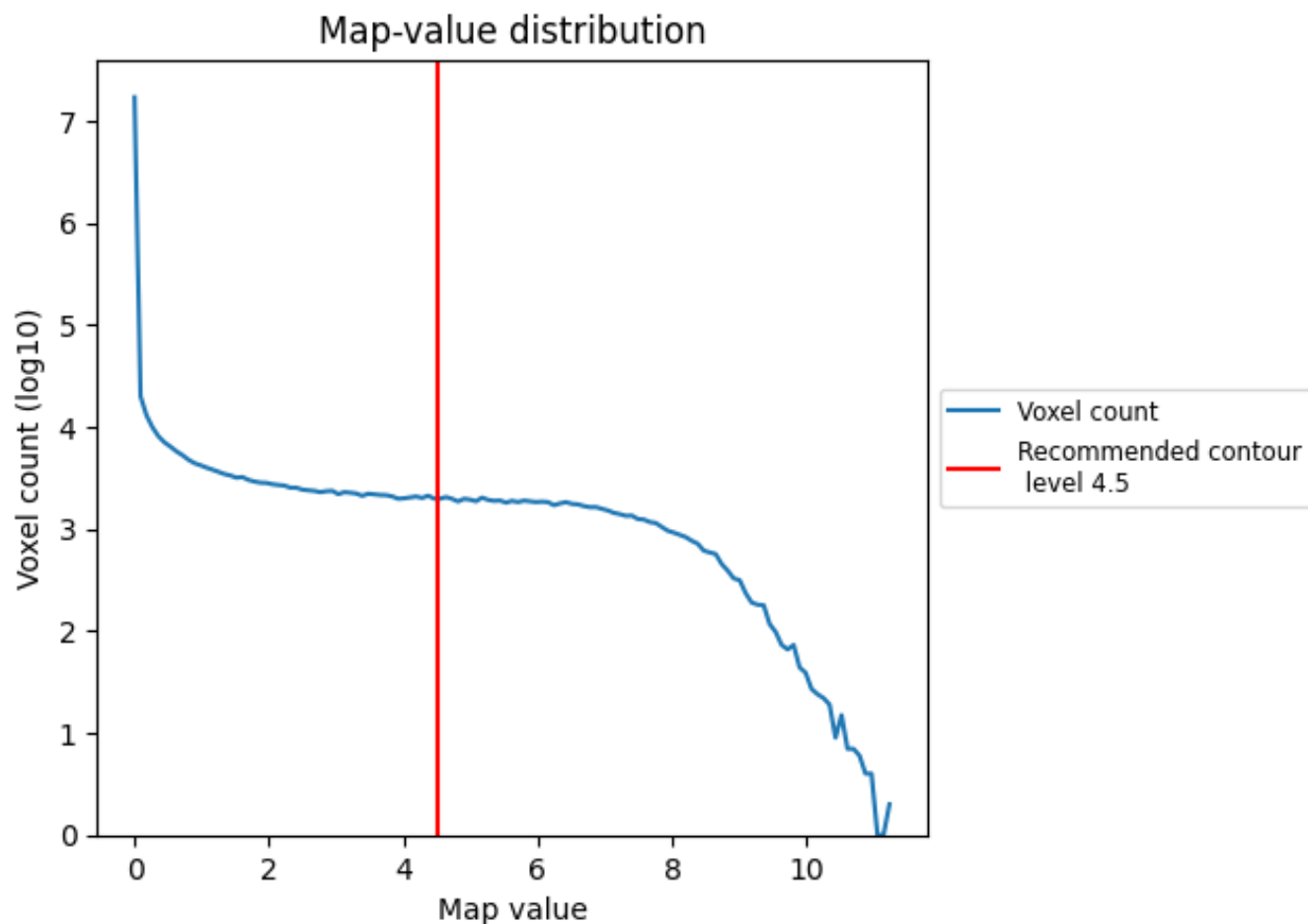
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

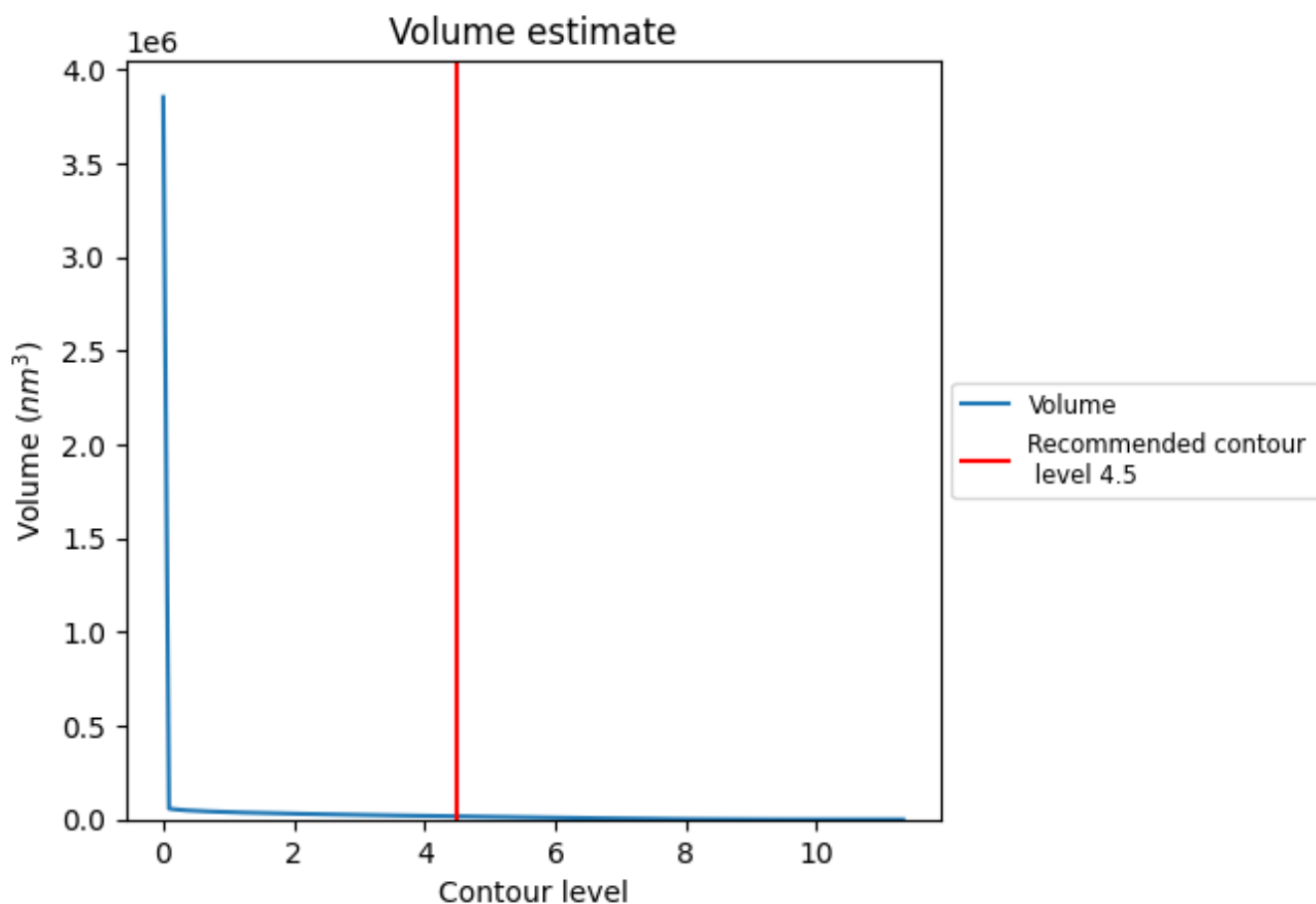
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

7.2 Volume estimate [i](#)



The volume at the recommended contour level is 16773 nm^3 ; this corresponds to an approximate mass of 15151 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](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

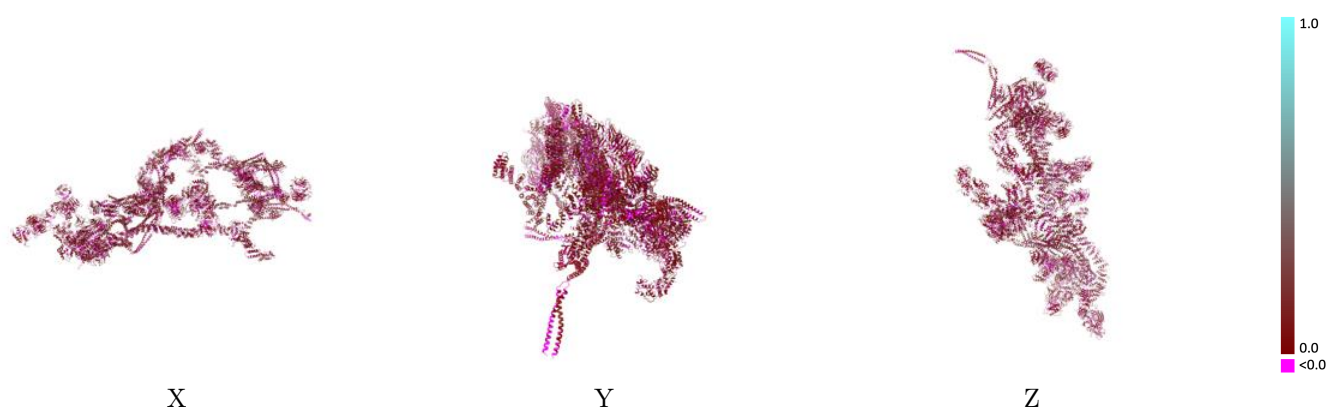
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-19515 and PDB model 8RUY. Per-residue inclusion information can be found in section 3 on page 9.

9.1 Map-model overlay [i](#)

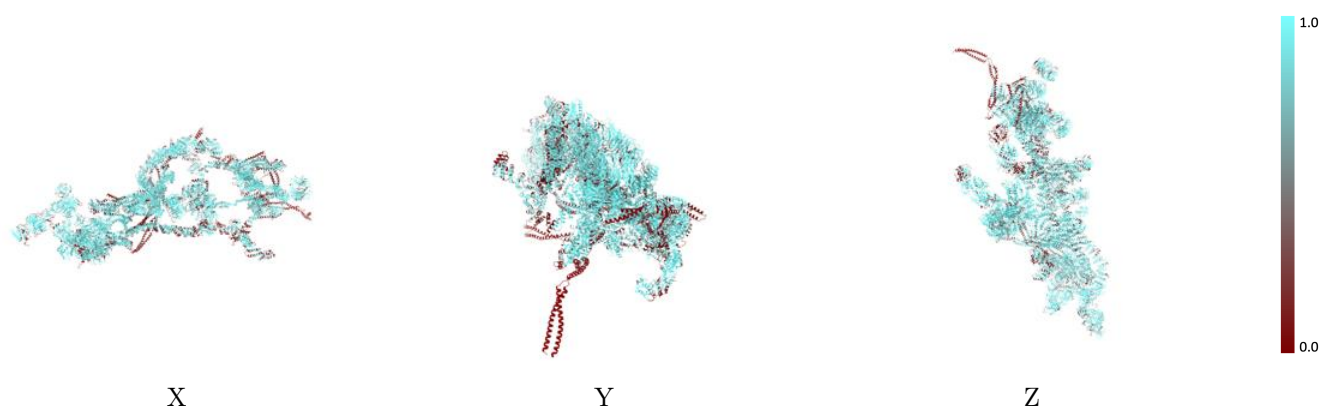
This section was not generated.

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



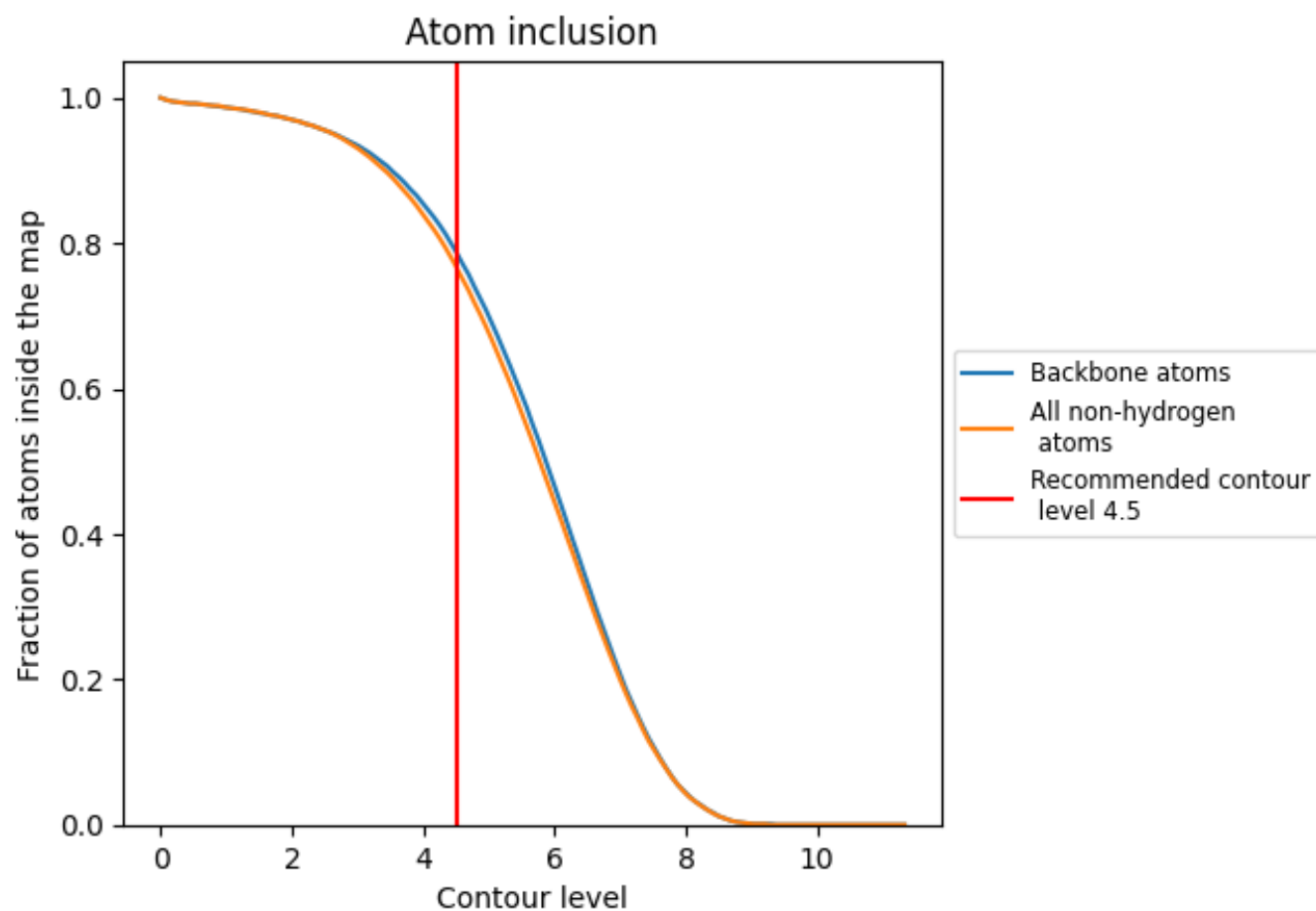
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (4.5).

9.4 Atom inclusion [i](#)



At the recommended contour level, 79% of all backbone atoms, 77% 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 (4.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7680	 0.0720
A	 0.7990	 0.0770
B	 0.7640	 0.0730
C	 0.8050	 0.0670
D	 0.8520	 0.0730
E	 0.7930	 0.0780
F	 0.8880	 0.0850
G	 0.7460	 0.0680
H	 0.8080	 0.0660
I	 0.7700	 0.0700
J	 0.8970	 0.0690
K	 0.8400	 0.0750
L	 0.9110	 0.0910
M	 0.6770	 0.0720
N	 0.7590	 0.0800
O	 0.3700	 0.0650
P	 0.3780	 0.0450
Q	 0.5860	 0.0620
R	 0.5770	 0.0840
S	 0.4310	 0.0780
T	 0.6860	 0.0630
f	 0.8640	 0.0770
g	 0.8510	 0.0740
h	 0.8310	 0.0660
i	 0.7120	 0.0770
j	 0.8300	 0.0650
k	 0.8380	 0.1210
l	 0.7890	 0.0560
m	 0.6010	 0.0630
n	 0.6800	 0.0720
s	 0.6600	 0.0770

