



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:24 AM GMT

PDB ID : 3HOU
Title : Complete RNA polymerase II elongation complex I with a T-U mismatch
Authors : Sydow, J.F.; Brueckner, F.; Cheung, A.C.M.; Damsma, G.E.; Dengl, S.;
Lehmann, E.; Vassilyev, D.; Cramer, P.
Deposited on : 2009-06-03
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

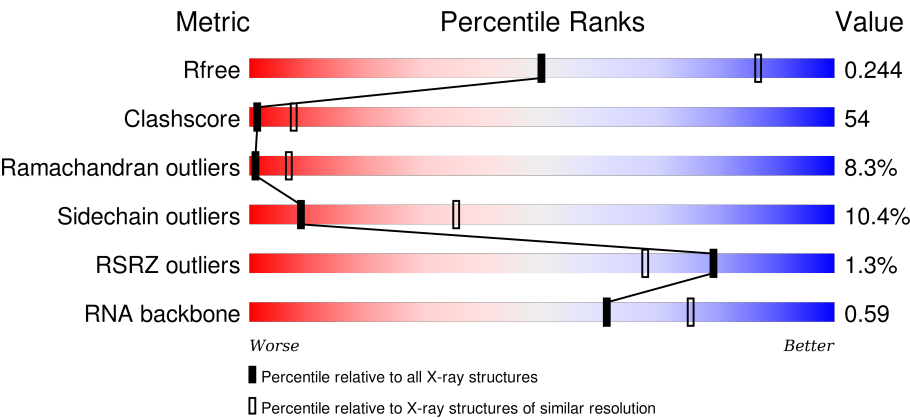
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1124 (3.24-3.16)
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RSRZ outliers	91569	1129 (3.24-3.16)
RNA backbone	2183	1079 (3.70-2.70)

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

Mol	Chain	Length	Quality of chain
1	A	1733	<div><div></div><div>31%41%9%•18%</div></div>
1	M	1733	<div><div>%</div><div>31%40%9%•18%</div></div>
2	B	1224	<div><div>%</div><div>27%51%12%10%</div></div>
2	N	1224	<div><div>%</div><div>26%53%11%•10%</div></div>

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Mol	Chain	Length	Quality of chain
3	C	318	
3	O	318	
4	D	221	
4	P	221	
5	E	215	
5	Q	215	
6	F	155	
6	R	155	
7	G	171	
7	S	171	
8	H	146	
8	T	146	
9	I	122	
9	U	122	
10	J	70	
10	V	70	
11	K	120	
11	W	120	
12	L	70	
12	X	70	
13	1	26	
13	4	26	
14	2	13	
14	5	13	
15	3	17	

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Mol	Chain	Length	Quality of chain
15	6	17	<div><div><div></div><div></div><div></div><div></div></div><div>6%29%35%35%</div></div>

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 63664 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase II subunit RPB1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			
1	M	1416	Total	C	N	O	S	0	0	0
			11143	7021	1949	2111	62			

- Molecule 2 is a protein called DNA-directed RNA polymerase II subunit RPB2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			
2	N	1104	Total	C	N	O	S	0	0	0
			8779	5560	1537	1627	55			

- Molecule 3 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			
3	O	266	Total	C	N	O	S	0	0	0
			2095	1317	348	417	13			

- Molecule 4 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			
4	P	178	Total	C	N	O	S	0	0	0
			1434	887	257	288	2			

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			
5	Q	214	Total	C	N	O	S	0	0	0
			1752	1111	309	321	11			

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			
6	R	87	Total	C	N	O	S	0	0	0
			705	451	119	132	3			

- Molecule 7 is a protein called DNA-directed RNA polymerase II subunit RPB7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			
7	S	171	Total	C	N	O	S	0	0	0
			1340	861	222	249	8			

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			
8	T	134	Total	C	N	O	S	0	0	0
			1076	677	182	213	4			

- Molecule 9 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			
9	U	119	Total	C	N	O	S	0	0	0
			971	596	179	186	10			

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	V	65	Total	C	N	O	S	0	0	0
			532	339	93	94	6			

- Molecule 11 is a protein called DNA-directed RNA polymerase II subunit RPB11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			
11	W	114	Total	C	N	O	S	0	0	0
			919	590	156	171	2			

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			
12	X	46	Total	C	N	O	S	0	0	0
			363	224	72	63	4			

- Molecule 13 is a DNA chain called 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*CP*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
13	1	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			
13	4	18	Total	Br	C	N	O	P	0	0	0
			368	1	176	66	108	17			

- Molecule 14 is a DNA chain called 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	2	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			
14	5	6	Total	C	N	O	P	0	0	0
			117	58	20	34	5			

- Molecule 15 is a RNA chain called 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	3	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			
15	6	11	Total	C	N	O	P	0	0	0
			230	104	41	75	10			

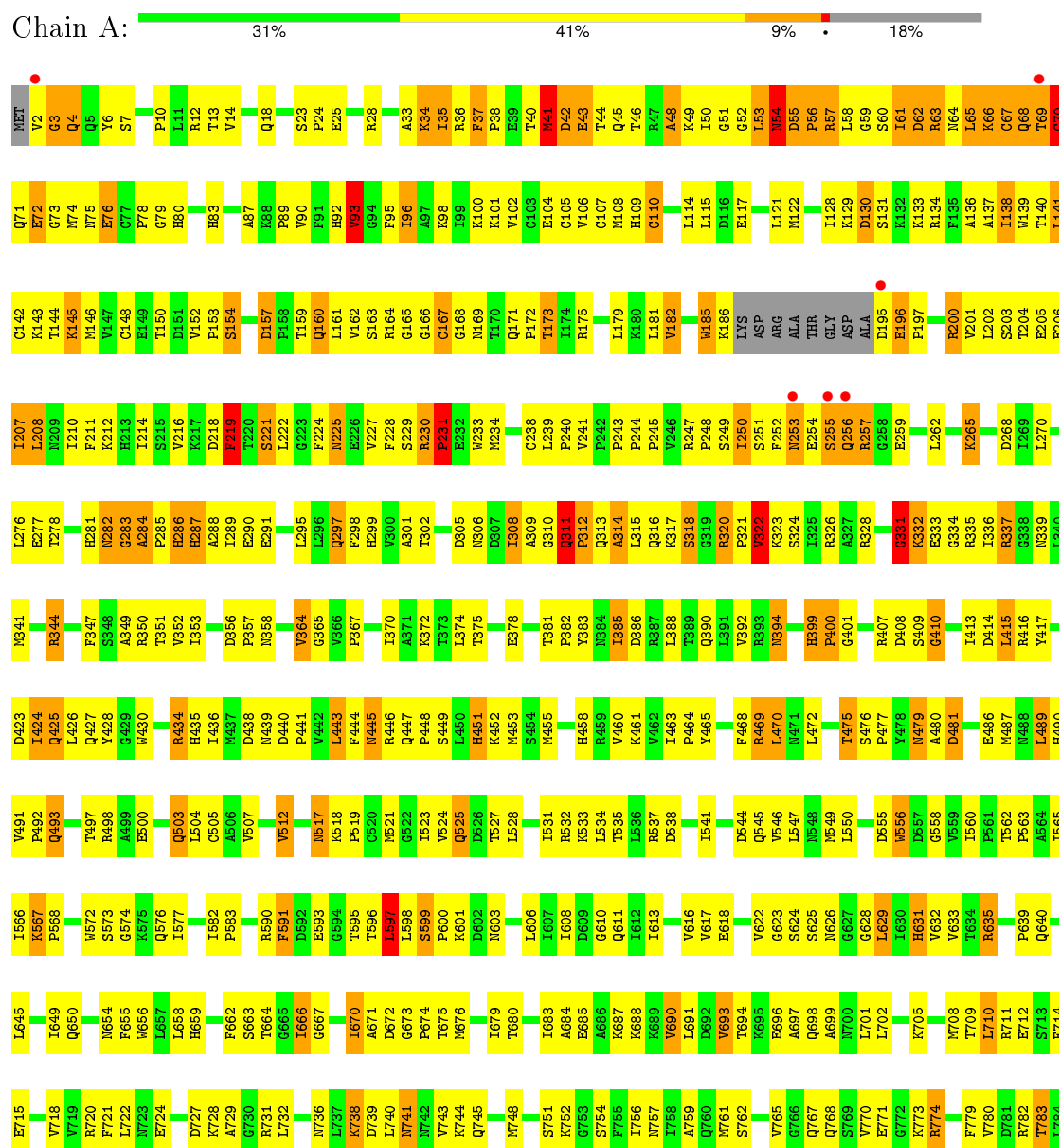
- Molecule 16 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	J	1	Total	Zn	0	0
			1	1		
16	B	1	Total	Zn	0	0
			1	1		
16	I	2	Total	Zn	0	0
			2	2		
16	C	1	Total	Zn	0	0
			1	1		
16	V	1	Total	Zn	0	0
			1	1		
16	A	2	Total	Zn	0	0
			2	2		
16	N	1	Total	Zn	0	0
			1	1		
16	U	2	Total	Zn	0	0
			2	2		
16	X	1	Total	Zn	0	0
			1	1		
16	O	1	Total	Zn	0	0
			1	1		
16	L	1	Total	Zn	0	0
			1	1		
16	M	2	Total	Zn	0	0
			2	2		

3 Residue-property plots [i](#)

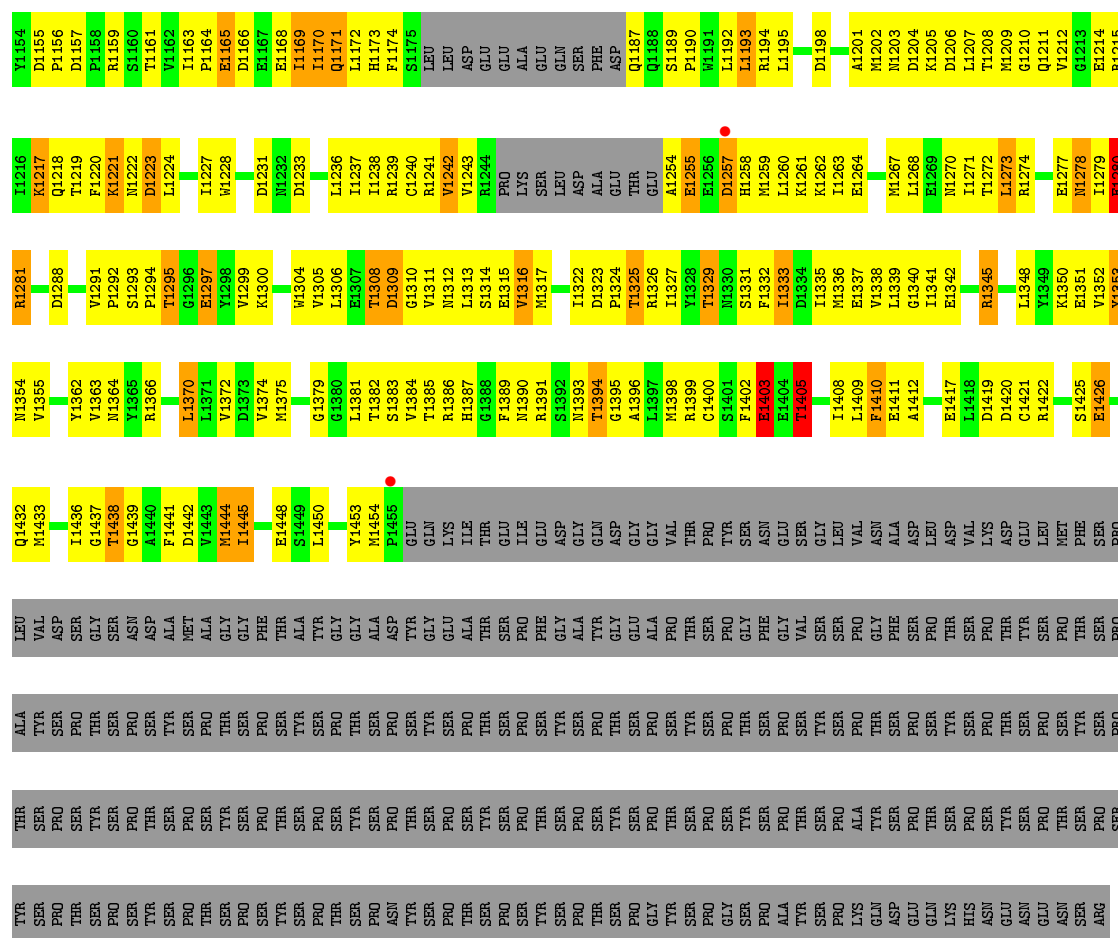
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according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

- Molecule 1: DNA-directed RNA polymerase II subunit RPB1

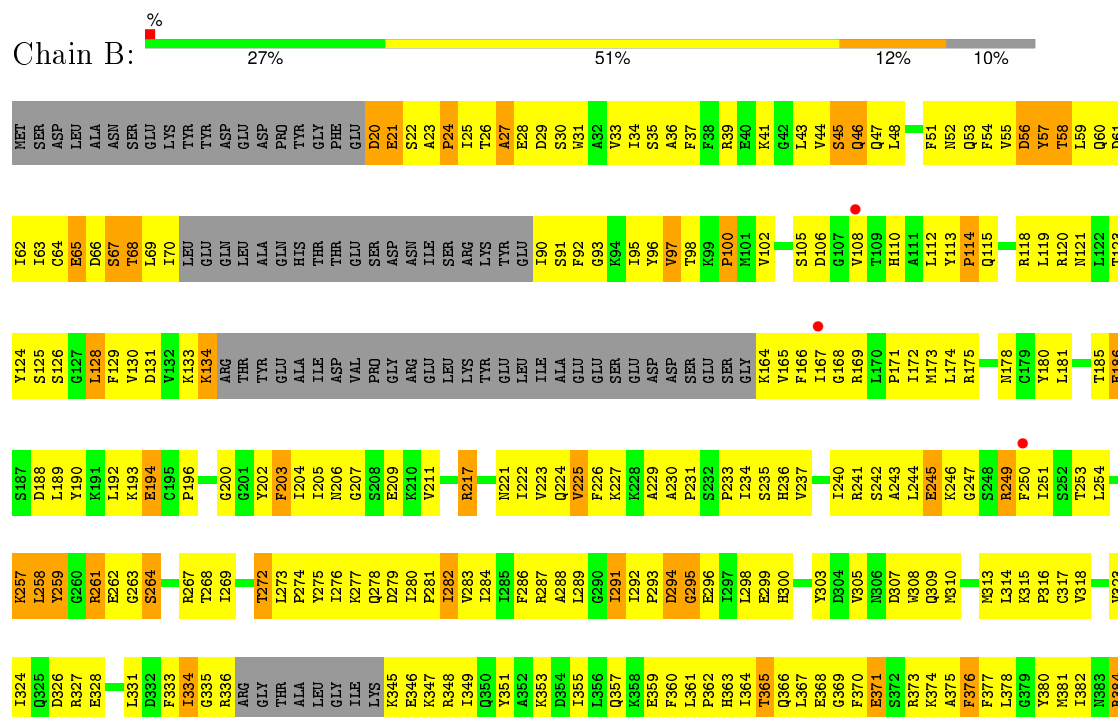


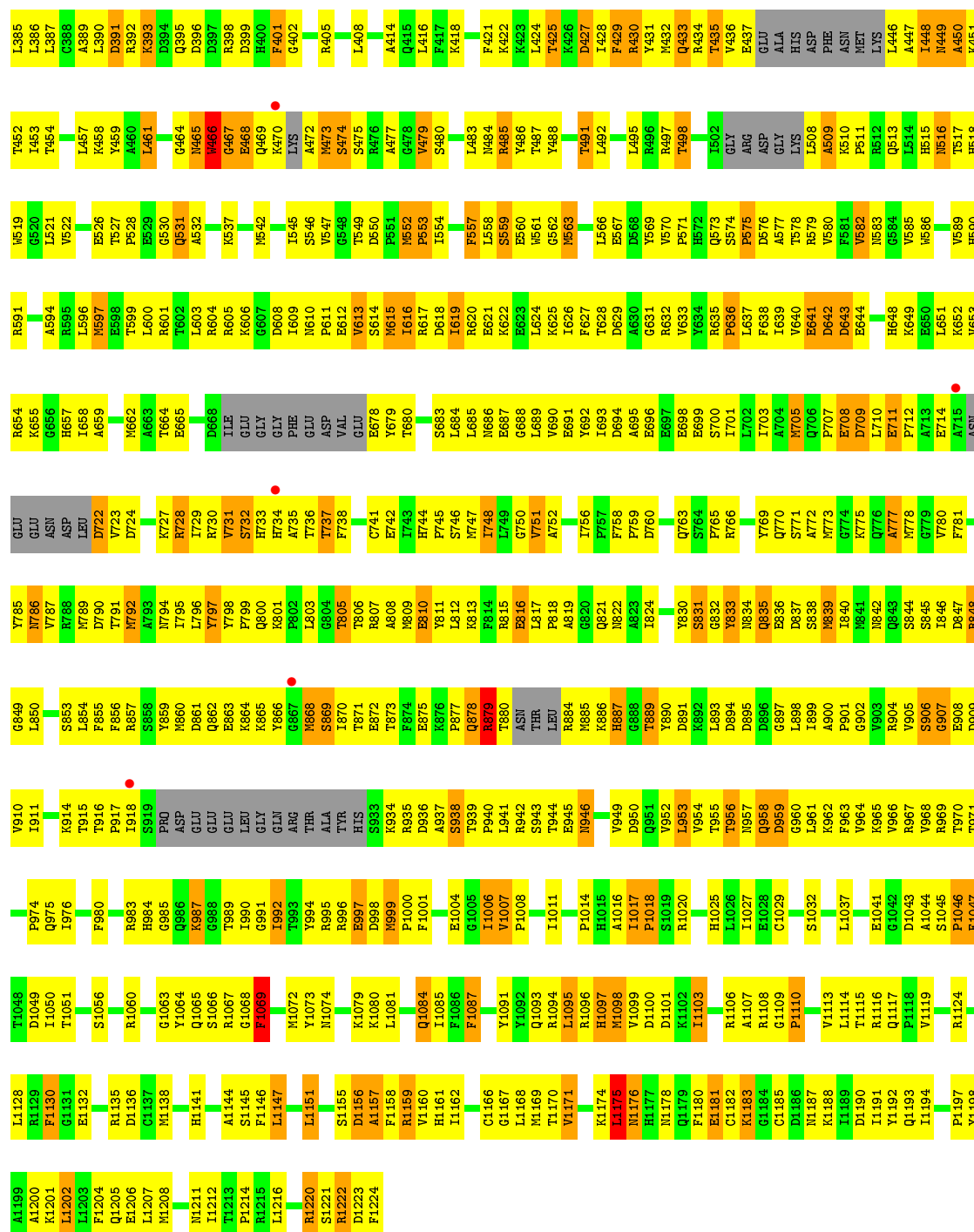
Chain M:  %



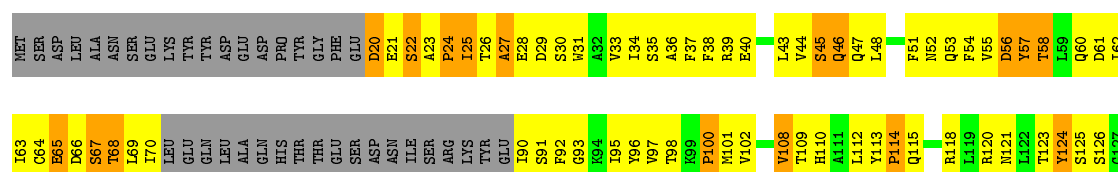


- Molecule 2: DNA-directed RNA polymerase II subunit RPB2





• Molecule 2: DNA-directed RNA polymerase II subunit RPB2

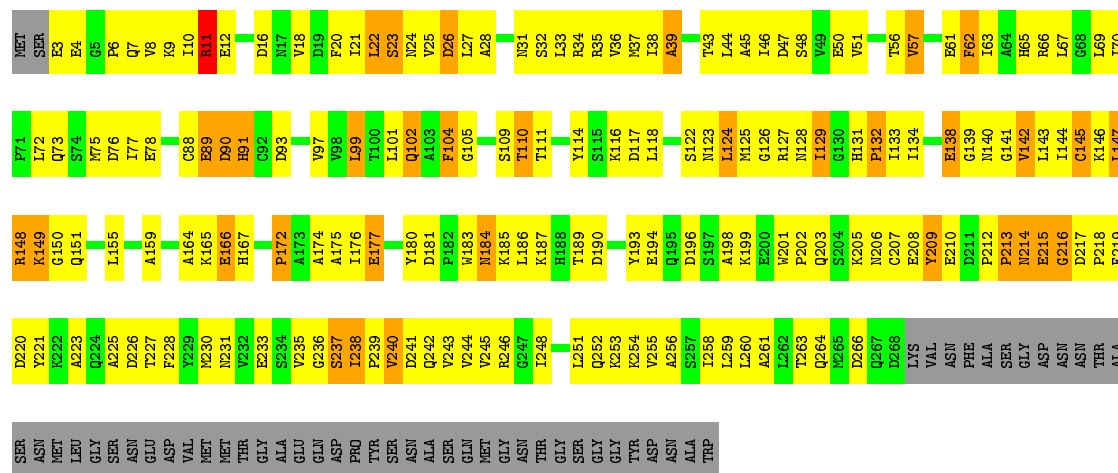


G1109	K1033	K965	P901	K841	A777	P712	B50	B590	Q520	T454	L387	G325	L258	L192	L128
P1110	V1034	V966	G902	M842	K778	A713	L651	B591	L521	L457	C388	D326	Y259	K193	F129
V1113	L1037	R967	V905	Q843	G779	E714	K652	B592	V522	L458	A389	R327	R261	K194	D131
L1114	S1038	R968	S906	S844	F781	A715	P593	A594	C523	Y459	L390	D332	E262	G195	
T1115	G1039	R969	G907	S845	L782	GLU	K654	B595	A524	A460	R392	L331	G263	P196	
R1116	N1040	D847	E908	D847	T793	GLU	G656	L596	A525	L461	K393	D332	S264	K134	
P1117	E1041	R848	D909	R848	N784	ASN	K657	B597	E527		D394	F333	S264		
P1118	G1042	R849	R785	G849	Y785	ASP	E598	B598	P528	G464	D397	I394	I269	Y202	
V1119	D1043	L850	V910	L850	N786	LEU	K659	T599	E529	N465	D396	G395	I269	F203	
E1120	A1044	I976	I911	F851	N787	D722	L600	L500	G530	N466	D396	R336	I269	I204	
G1121	S1045	R852	K914	R788	R788	V723	L661	B601	Q531	G467	R398	GLY	T272	G207	
S1122	P1046	R853	T915	R789	R789	V723	L662	B602	Q532	E468	D399	THR	L273	G207	
S1123	F1047	L854	T916	D790	D790	D724	A683	L603	A632	Q469	H400	ALA	Y275	ASP	
R1124	T1048	F855	P917	T791	T791	K727	T664	L604	I539	K470	F401	LEU	I276	GLY	
F1129	D1049	R856	I918	M792	M792	R728	B605	B605		L470	G402	GLY	K277	V211	
F1130	T1051	R857	S919	A793	A793	V731	K606	K606	M542	A472	R405	ILE	Q278	ARG	
G1131	Q1056	X859	ASP	S858	N794	S732	D668	D608	I545	N473	L406	K345	I280	GLU	
E1132	S1066	M860	GLU	X859	L795	H733	ILE	T609	S546	S474	D407	E346	I280	LEU	
R1135	R1080	D861	GLU	M860	L796	H734	GLY	L610	S547	S475	L408	E346	P281	LYS	
D1136	F1069	Q862	LEU	Q862	Y798	H735	GLY	P611	G548	R476		R348	I282	TRR	
C1137	G1063	E863	LEU	E863	F799	T736	PHE	B612	T549	A477		I349	V283	GLU	
H1141	Y1065	G991	GLY	K864	Q800	T737	GLU	V613	G549	Q478	L416	I356	I284	LEU	
A1144	Q1066	I992	GLY	K865	K801	F738	ASP	S614	P551	N479	F417	I356	I285	ILE	
S1145	S1066	T993	ARG	X866	F802		VAL	B615	M552	S480	L419	I352	I286	ALA	
D1156	K1079	Y994	THR	G867	L803	C741	GLU	L616	P553	L483	L420	K353	K287	GLU	
A1157	K1080	M868	ALA	M868	G804	E742	B678	L617	I554	N484	F421	D354	A288	GLU	
F1158	I1007	S869	TRR	S869	T805	H743	GLY	D618	I555	R485	K422	I355	L289	SER	
V1160	P1008	I870	HIS	I870	T806	H744	T680	L619	T556	Y486	K423	I356	F226	GLU	
H1161	F1086	T871	ASP	T871	R807	P745	T680	B620	F557	T487	L424	I357	K227	ASP	
I1165	Y1091	E872	ASP	E872	A808	P746	S682	B621	L558	Y488	T425	I358	I292	ASP	
C1166	A1016	R873	P1000	R873	M809	M747	S683	B622	S589	S489	K426	I359	I293	SER	
G1167	L1017	R874	R335	R874	E810	I748	L684	E523	M561	T491	F427	F360	D294	GLU	
L1168	P1008	E875	D936	E875	L811	L749	L685	L623	G562	L492	F429	P362	E296	GLY	
M1169	F1087	R876	A937	R876	L812	G750	M686	K625	M563	L495	R430	H363	I297	GLY	
T1170	Y1091	P877	E1004	P877	R815	A752	B687	L626	L566	R496	Y431	I364	I298	V165	
V1171	A1016	Q878	T939	Q878	E816	I756	L689	L628	L566	R497	M432	I366	E299	F166	
I1172	R1094	R879	P940	R879	L817	P757	B690	T629	Y569	T498	Q433	Q366	H300	I167	
L1173	L1085	ASN	L941	ASN	P818	F758	B691	A630	P570	GLY	R434	E368	G168	G168	
C1174	F1086	THR	R942	THR	F818	P759	B692	B631	P571	I502	T435	I367	A238	R169	
I1175	Y1091	LEU	E945	LEU	Q821	D760	B694	B633	H572	GLY	V436	G369	I240	P171	
C1176	A1016	M885	N946	M885	B822	H761	A695	L634	Q573	ARG	GLU	F370	V305	L170	
G1177	L1017	R886	D950	R886	B823	H762	B696	B635	P574	ASP	ALA	E371	I241	I172	
M1178	P1018	H887	Q951	H887	B825	Q763	B697	B636	S574	GLY	HIS	S372	S242	M173	
T1179	S1019	G888	V952	G888	B826	S764	B698	L637	D576	LYS	ASP	R374	A243	L174	
V1171	R1020	T889	L953	T889	A826	P765	B699	B638	A577	L508	PHE	A375	E245	R175	
I1172	M1021	Y890	V954	Y890	Y830	R766	B699	L639	A577	A509	ASN	F376	K246	N178	
L1173	T1022	D891	T955	D891	S831	R767	S700	B640	T578	K510	MET	F377	E312	C179	
K1174	H1025	R892	T956	R892	B832	T768	L702	V641	V580	P511	LYS	L378	M313	Y180	
L1175	N957	L893	N957	L893	D642	Y769	B641	D642	F581	B512	L446	G379	L314	L181	
H1176	L1026	D894	Q958	D894	D643	Q770	R705	B643	P581	B512	A447	Y380	F250	T185	
N1177	D959	R895	Q958	R895	Q706	S771	Q706	B644	S574	GLY	I448	R381	T251	T186	
H1178	E1028	R896	D959	R896	A772	A772	Q707	S645	P575	ASP	M449	I382	S252	S187	
Q1179	C1029	G897	L861	G897	D837	M773	E708	L646	D576	B515	A450	R383	L254	D188	
F1180	L1030	L898	K962	L898	D837	M773	E709	L647	M586	B516	K451	R384	Q255	L189	
E1181	S1032	M839	V964	M839	K774	G774	D709	B647	M586	T517	T452	L385	V256	V180	
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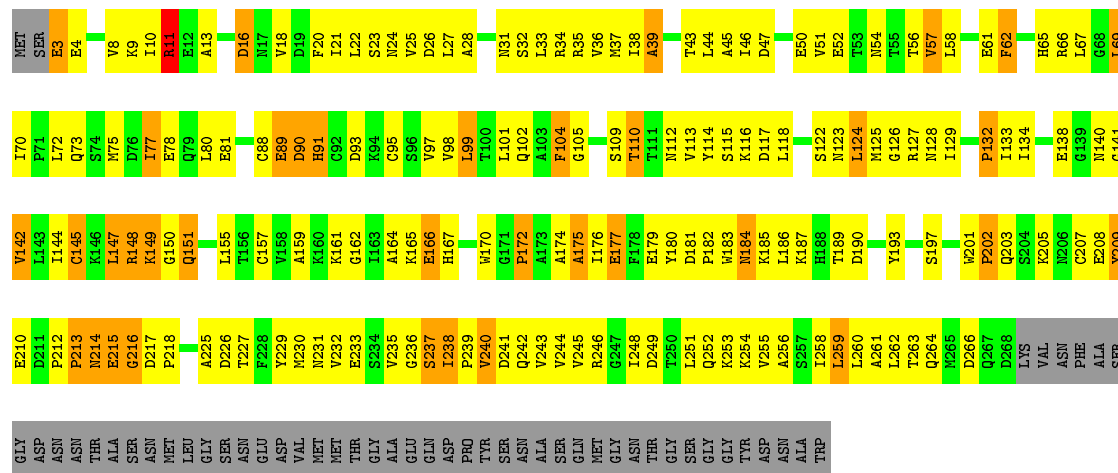
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

Chain C: 29% 44% 11% 16%



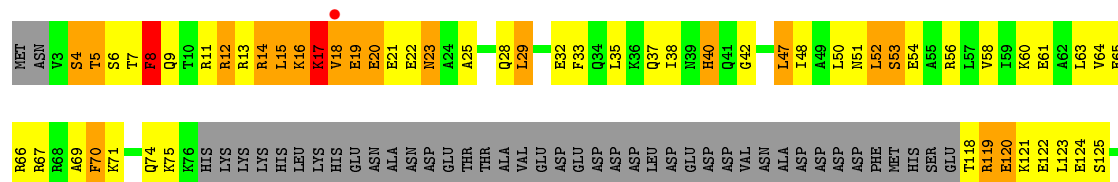
• Molecule 3: DNA-directed RNA polymerase II subunit RPB3

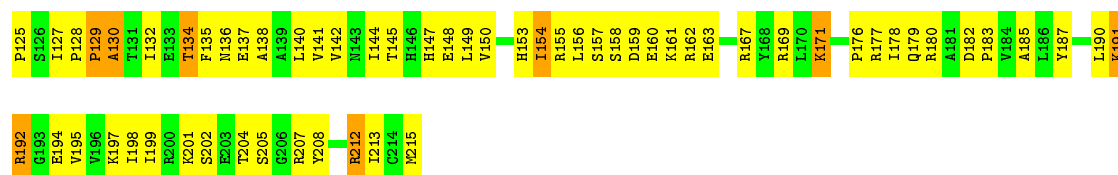
Chain O: 28% 44% 11% 16%



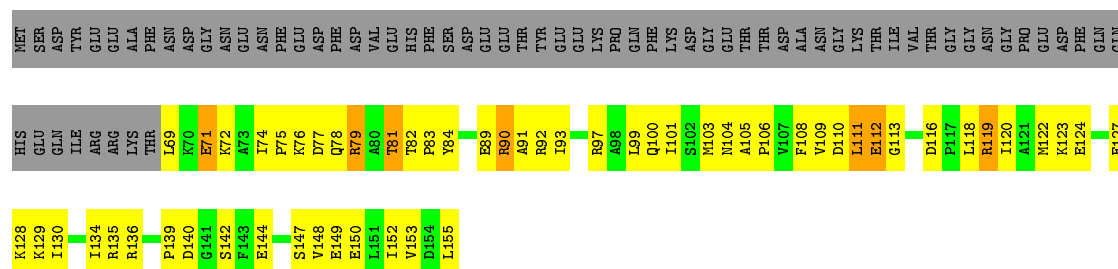
• Molecule 4: DNA-directed RNA polymerase II subunit RPB4

Chain D: 26% 41% 12% 19%

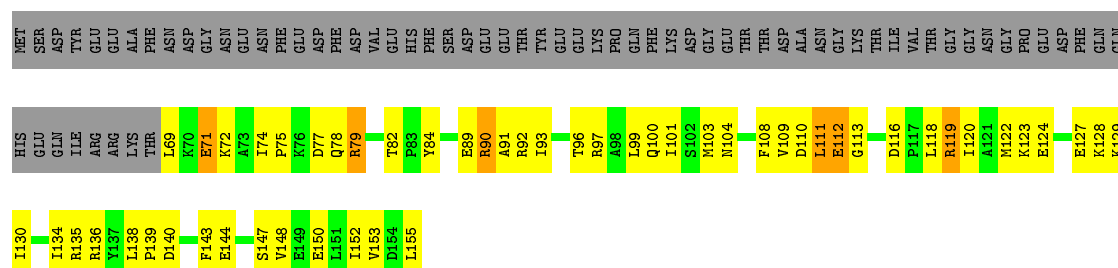




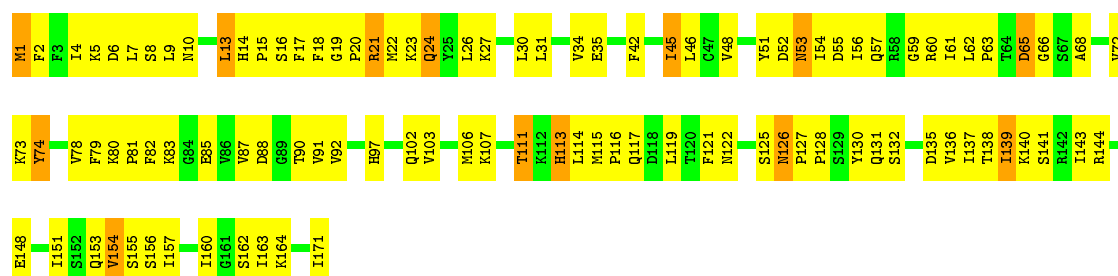
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2



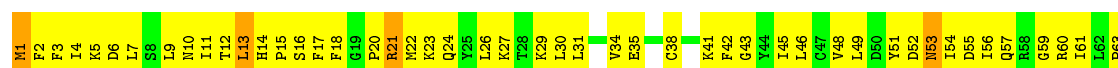
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2

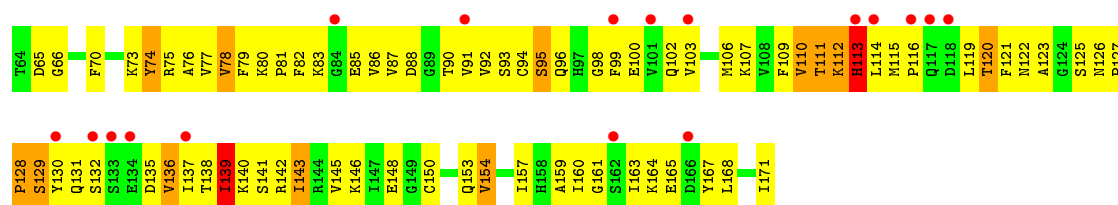


- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

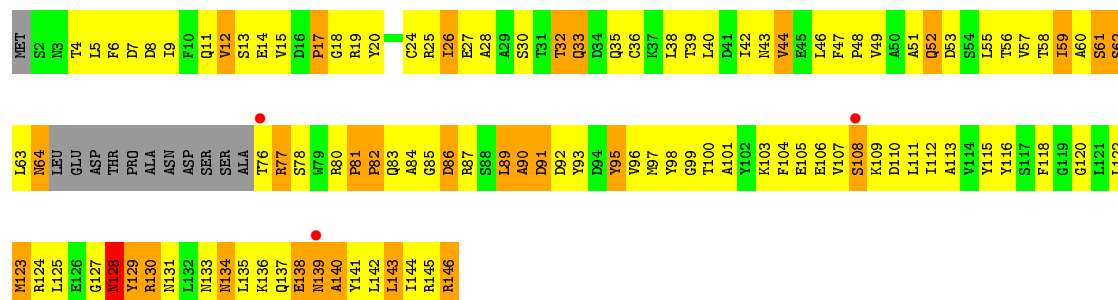
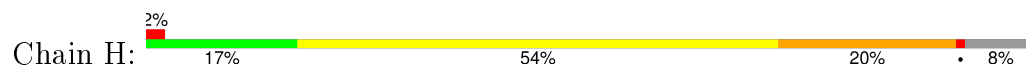


- Molecule 7: DNA-directed RNA polymerase II subunit RPB7

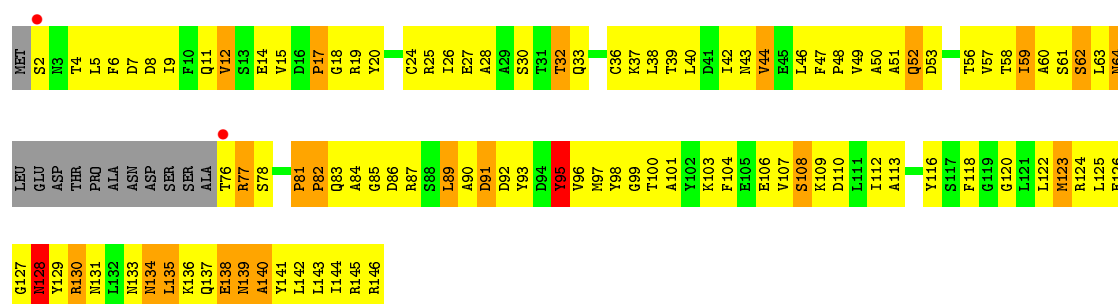




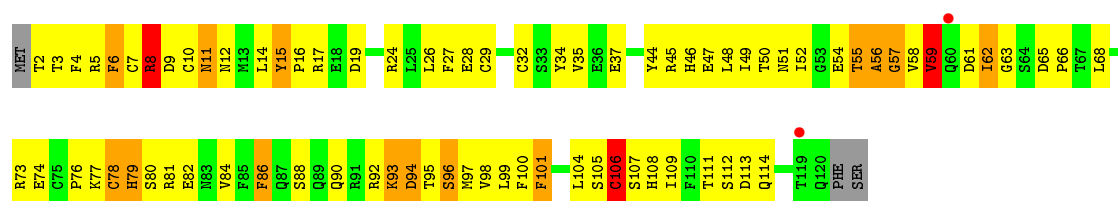
- Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



- Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3

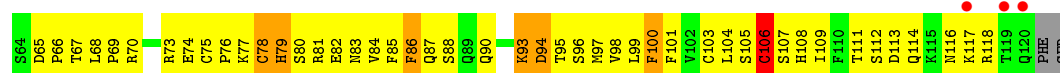


- Molecule 9: DNA-directed RNA polymerase II subunit RPB9

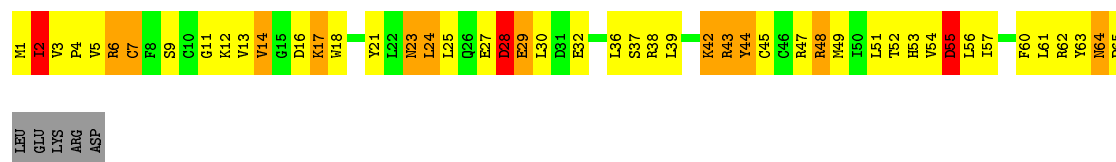


- Molecule 9: DNA-directed RNA polymerase II subunit RPB9

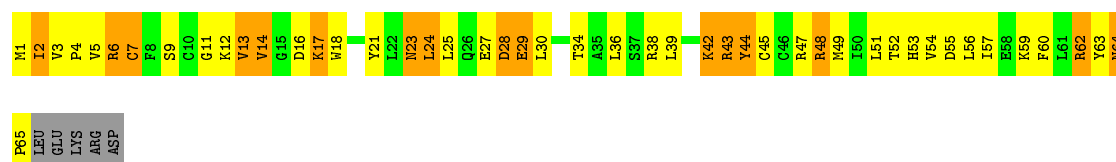




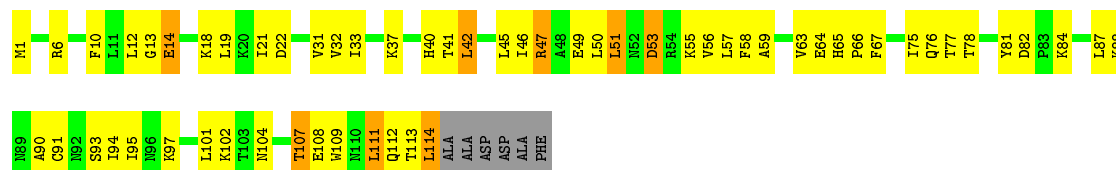
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



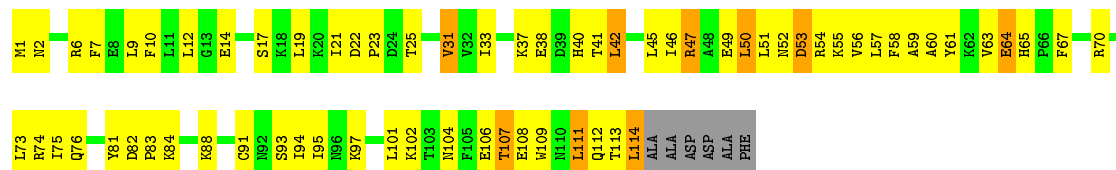
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



- Molecule 11: DNA-directed RNA polymerase II subunit RPB11

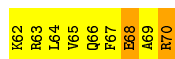


- Molecule 11: DNA-directed RNA polymerase II subunit RPB11

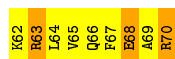


- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4





- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4



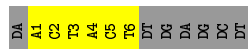
- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'



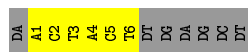
- Molecule 13: 5'-D(*AP*GP*CP*TP*CP*A*AP*GP*TP*AP*GP*TP*TP*AP*TP*GP*CP*C P*(BRU)P*GP*GP*TP*CP*AP*TP*T)-3'



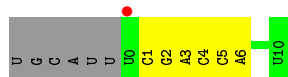
- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'



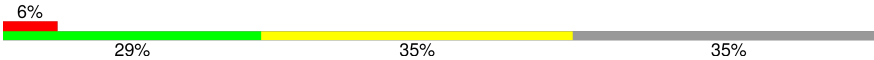
- Molecule 14: 5'-D(*A*AP*CP*TP*AP*CP*TP*TP*GP*AP*GP*CP*T)-3'

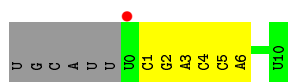


- Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3',



- Molecule 15: 5'-R(*UP*GP*CP*AP*UP*U*UP*CP*GP*AP*CP*CP*AP*GP*GP*CP*U)-3',

Chain 6: 



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	394.26Å 221.61Å 283.45Å 90.00° 90.90° 90.00°	Depositor
Resolution (Å)	40.00 – 3.20 38.25 – 3.02	Depositor EDS
% Data completeness (in resolution range)	95.6 (40.00-3.20) 85.7 (38.25-3.02)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.07	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.97 (at 3.01Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.233 , 0.252 0.238 , 0.244	Depositor DCC
R_{free} test set	18782 reflections (5.20%)	DCC
Wilson B-factor (Å ²)	62.6	Xtriage
Anisotropy	0.223	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	(Not available) , (Not available)	EDS
Estimated twinning fraction	0.017 for -1/2*h-3/2*k,-1/2*h+1/2*k,-l 0.018 for -1/2*h+3/2*k,1/2*h+1/2*k,-l 0.017 for 1/2*h-3/2*k,-1/2*h-1/2*k,-l 0.017 for 1/2*h+3/2*k,1/2*h-1/2*k,-l 0.257 for -h,-k,l	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtriage
Outliers	2 of 422548 reflections (0.000%)	Xtriage
F_o , F_c correlation	0.89	EDS
Total number of atoms	63664	wwPDB-VP
Average B, all atoms (Å ²)	62.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.35% of the height of the origin peak. No significant pseudotranslation is detected.*

¹ Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.50	0/11342	0.77	8/15337 (0.1%)
1	M	0.50	0/11342	0.78	8/15337 (0.1%)
2	B	0.48	0/8948	0.74	1/12062 (0.0%)
2	N	0.48	1/8948 (0.0%)	0.74	1/12062 (0.0%)
3	C	0.49	0/2133	0.73	1/2891 (0.0%)
3	O	0.48	0/2133	0.74	1/2891 (0.0%)
4	D	0.44	0/1444	0.72	1/1935 (0.1%)
4	P	0.53	0/1444	0.85	5/1935 (0.3%)
5	E	0.46	0/1788	0.69	1/2406 (0.0%)
5	Q	0.46	0/1788	0.70	1/2406 (0.0%)
6	F	0.57	0/717	0.82	1/967 (0.1%)
6	R	0.56	0/717	0.82	1/967 (0.1%)
7	G	0.46	0/1368	0.75	1/1844 (0.1%)
7	S	0.57	0/1368	0.86	1/1844 (0.1%)
8	H	0.43	0/1094	0.71	0/1481
8	T	0.42	0/1094	0.72	0/1481
9	I	0.42	0/989	0.71	0/1331
9	U	0.45	0/989	0.71	0/1331
10	J	0.51	0/541	0.83	0/727
10	V	0.48	0/541	0.80	0/727
11	K	0.46	0/937	0.67	0/1265
11	W	0.48	0/937	0.68	0/1265
12	L	0.58	0/365	0.84	0/485
12	X	0.57	0/365	0.84	0/485
13	1	0.60	0/389	0.96	0/597
13	4	0.60	0/389	0.94	0/597
14	2	0.61	0/130	0.78	0/198
14	5	0.60	0/130	0.78	0/198
15	3	0.56	0/256	0.74	0/397
15	6	0.54	0/256	0.74	0/397
All	All	0.49	1/64882 (0.0%)	0.76	32/87846 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	B	0	1
2	N	0	2
13	1	0	4
13	4	0	4
All	All	0	11

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	N	1137	CYS	CB-SG	-5.78	1.72	1.81

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	P	180	LEU	CA-CB-CG	-7.93	97.05	115.30
4	P	166	LEU	CA-CB-CG	6.53	130.32	115.30
1	A	56	PRO	N-CA-C	-6.37	95.55	112.10
1	M	56	PRO	N-CA-C	-6.35	95.59	112.10
3	C	39	ALA	N-CA-C	5.97	127.11	111.00
4	P	50	LEU	CA-CB-CG	5.89	128.85	115.30
4	P	172	LEU	CA-CB-CG	5.86	128.77	115.30
7	S	65	ASP	N-CA-C	-5.75	95.48	111.00
7	G	65	ASP	N-CA-C	-5.69	95.64	111.00
1	A	3	GLY	N-CA-C	-5.68	98.89	113.10
1	M	3	GLY	N-CA-C	-5.67	98.93	113.10
3	O	39	ALA	N-CA-C	5.66	126.27	111.00
1	M	311	GLN	N-CA-C	5.65	126.25	111.00
6	F	71	GLU	N-CA-C	-5.59	95.91	111.00
1	A	311	GLN	N-CA-C	5.58	126.07	111.00
5	Q	171	LYS	N-CA-C	-5.54	96.05	111.00
6	R	71	GLU	N-CA-C	-5.52	96.10	111.00
5	E	171	LYS	N-CA-C	-5.52	96.11	111.00
1	M	4	GLN	N-CA-C	5.51	125.89	111.00
4	P	8	PHE	N-CA-C	5.39	125.55	111.00
1	A	4	GLN	N-CA-C	5.27	125.22	111.00
4	D	8	PHE	N-CA-C	5.26	125.20	111.00
2	N	1130	PHE	N-CA-C	-5.22	96.91	111.00
1	A	331	GLY	N-CA-C	5.21	126.13	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1130	PHE	N-CA-C	-5.19	96.98	111.00
1	A	54	ASN	C-N-CA	5.19	134.67	121.70
1	M	54	ASN	C-N-CA	5.10	134.44	121.70
1	M	629	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	1403	GLU	N-CA-C	5.08	124.71	111.00
1	M	1403	GLU	N-CA-C	5.07	124.69	111.00
1	A	55	ASP	N-CA-CB	5.07	119.72	110.60
1	M	331	GLY	N-CA-C	5.02	125.65	113.10

There are no chirality outliers.

All (11) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	1	18	DA	Sidechain
13	1	19	DT	Sidechain
13	1	20	DG	Sidechain
13	1	21	DC	Sidechain
13	4	18	DA	Sidechain
13	4	19	DT	Sidechain
13	4	20	DG	Sidechain
13	4	21	DC	Sidechain
2	B	833	TYR	Sidechain
2	N	431	TYR	Sidechain
2	N	797	TYR	Sidechain

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	11143	0	11217	1159	0
1	M	11143	0	11217	1163	0
2	B	8779	0	8808	1066	0
2	N	8779	0	8808	1078	0
3	C	2095	0	2051	226	0
3	O	2095	0	2051	227	0
4	D	1434	0	1460	152	0
4	P	1434	0	1460	273	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	E	1752	0	1776	187	0
5	Q	1752	0	1776	202	0
6	F	705	0	731	85	0
6	R	705	0	731	75	0
7	G	1340	0	1357	145	0
7	S	1340	0	1357	205	0
8	H	1076	0	1046	171	0
8	T	1076	0	1046	154	0
9	I	971	0	929	117	0
9	U	971	0	929	126	0
10	J	532	0	542	97	0
10	V	532	0	542	95	0
11	K	919	0	929	81	0
11	W	919	0	929	84	0
12	L	363	0	387	87	0
12	X	363	0	387	84	0
13	1	368	0	203	27	0
13	4	368	0	203	27	0
14	2	117	0	70	13	0
14	5	117	0	70	11	0
15	3	230	0	121	8	0
15	6	230	0	121	8	0
16	A	2	0	0	0	0
16	B	1	0	0	0	0
16	C	1	0	0	0	0
16	I	2	0	0	0	0
16	J	1	0	0	0	0
16	L	1	0	0	0	0
16	M	2	0	0	0	0
16	N	1	0	0	0	0
16	O	1	0	0	0	0
16	U	2	0	0	0	0
16	V	1	0	0	0	0
16	X	1	0	0	0	0
All	All	63664	0	63254	6846	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 54.

All (6846) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:510:LYS:HG3	2:N:511:PRO:HD3	1.21	1.17
1:A:855:THR:HG21	1:A:857:ARG:HE	1.08	1.16
9:U:111:THR:HG22	9:U:113:ASP:H	1.05	1.15
5:Q:124:VAL:HG13	5:Q:132:ILE:HB	1.28	1.15
8:H:4:THR:HA	8:H:60:ALA:HB2	1.26	1.14
1:M:855:THR:HG21	1:M:857:ARG:HE	1.03	1.14
9:I:111:THR:HG22	9:I:113:ASP:H	1.05	1.14
3:O:57:VAL:HG11	10:V:60:PHE:HB3	1.26	1.14
2:N:102:VAL:HG23	2:N:112:LEU:HB2	1.30	1.14
8:T:4:THR:HA	8:T:60:ALA:HB2	1.27	1.13
1:A:53:LEU:HD23	1:A:54:ASN:H	1.03	1.12
2:B:508:LEU:N	14:2:1:DA:HO5'	1.49	1.10
1:M:1420:ASP:HB3	1:M:1422:ARG:HG3	1.33	1.10
1:A:541:ILE:HD13	1:A:549:MET:HE1	1.33	1.10
2:N:710:LEU:HA	2:N:733:HIS:HB3	1.33	1.09
1:M:351:THR:HG22	2:N:1103:ILE:HA	1.35	1.09
3:C:177:GLU:HG3	3:C:231:ASN:HB3	1.33	1.09
1:A:567:LYS:HB3	8:H:96:VAL:H	1.12	1.08
2:B:559:SER:HA	2:B:563:MET:HB3	1.33	1.08
1:M:1161:THR:HG22	1:M:1163:ILE:H	1.12	1.08
2:B:521:LEU:HD22	2:B:633:VAL:HG12	1.35	1.07
1:M:41:MET:HB3	1:M:49:LYS:HA	1.33	1.07
2:B:622:LYS:HE2	9:I:59:VAL:HG22	1.31	1.07
2:N:559:SER:HA	2:N:563:MET:HB3	1.34	1.07
2:B:102:VAL:HG23	2:B:112:LEU:HB2	1.33	1.07
7:G:111:THR:HG23	7:G:114:LEU:HB2	1.35	1.07
3:C:57:VAL:HG11	10:J:60:PHE:HB3	1.33	1.07
1:M:53:LEU:HD23	1:M:54:ASN:N	1.69	1.06
2:N:622:LYS:HE2	9:U:59:VAL:HG22	1.34	1.06
5:Q:197:LYS:HE2	5:Q:199:ILE:HD11	1.36	1.06
1:A:1161:THR:HG22	1:A:1163:ILE:H	1.12	1.06
1:A:41:MET:HB3	1:A:49:LYS:HA	1.33	1.06
1:A:107:CYS:HA	1:A:171:GLN:HE22	1.18	1.06
1:M:53:LEU:CD2	1:M:54:ASN:H	1.68	1.05
2:N:521:LEU:HD22	2:N:633:VAL:HG12	1.35	1.05
1:M:567:LYS:HB3	8:T:96:VAL:H	1.18	1.05
1:M:108:MET:HA	1:M:210:ILE:HD13	1.37	1.05
2:B:710:LEU:HA	2:B:733:HIS:HB3	1.33	1.05
1:A:351:THR:HG22	2:B:1103:ILE:HA	1.36	1.05
12:L:26:THR:HG22	12:L:27:LEU:H	1.21	1.04
5:E:124:VAL:HG13	5:E:132:ILE:HB	1.30	1.04
5:E:197:LYS:HE2	5:E:199:ILE:HD11	1.37	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:353:ILE:HG21	1:A:487:MET:HG3	1.38	1.04
5:E:94:LYS:HE2	5:E:98:ILE:HD11	1.37	1.04
1:M:53:LEU:HD23	1:M:54:ASN:H	0.87	1.03
2:B:577:ALA:HB1	2:B:589:VAL:HG11	1.37	1.03
1:M:353:ILE:HG21	1:M:487:MET:HG3	1.41	1.03
5:E:117:THR:HG22	5:E:119:SER:H	1.23	1.02
2:N:516:ASN:H	2:N:516:ASN:HD22	1.04	1.02
2:N:114:PRO:HG3	2:N:181:LEU:HD11	1.36	1.02
2:N:516:ASN:N	2:N:516:ASN:HD22	1.57	1.02
12:X:26:THR:HG22	12:X:27:LEU:H	1.21	1.01
2:N:583:ASN:HD21	2:N:628:THR:HG22	1.19	1.01
7:S:1:MET:HE1	7:S:79:PHE:HA	1.36	1.01
2:N:577:ALA:HB1	2:N:589:VAL:HG11	1.39	1.01
2:B:583:ASN:HD21	2:B:628:THR:HG22	1.24	1.01
1:M:297:GLN:HE21	1:M:297:GLN:HA	1.23	1.01
3:O:177:GLU:HG3	3:O:231:ASN:HB3	1.43	1.01
2:B:510:LYS:CG	2:B:511:PRO:HD3	1.91	1.01
1:A:53:LEU:CD2	1:A:54:ASN:H	1.73	1.00
1:M:1385:THR:HG22	1:M:1387:HIS:H	1.24	1.00
2:B:579:ARG:HB2	2:B:586:TRP:HE1	1.24	1.00
1:A:297:GLN:HA	1:A:297:GLN:HE21	1.25	1.00
12:L:40:LEU:HD13	12:L:44:ASP:HB3	1.44	1.00
9:U:93:LYS:H	9:U:93:LYS:HD3	1.25	0.99
5:E:56:LYS:HE2	5:E:84:ASP:HB2	1.44	0.99
1:A:524:VAL:HG12	1:A:525:GLN:H	1.28	0.99
8:T:130:ARG:HH11	8:T:130:ARG:HB2	1.26	0.98
8:T:95:TYR:HE2	8:T:97:MET:HG3	1.26	0.98
8:H:59:ILE:HG22	8:H:60:ALA:H	1.28	0.98
1:A:344:ARG:HB3	1:A:344:ARG:HH11	1.25	0.98
1:M:1255:GLU:HG3	1:M:1258:HIS:HD2	1.28	0.98
2:B:516:ASN:H	2:B:516:ASN:HD22	1.12	0.98
2:B:510:LYS:HG3	2:B:511:PRO:CD	1.92	0.98
2:B:744:HIS:HD2	2:B:745:PRO:HD2	1.24	0.97
5:Q:56:LYS:HE2	5:Q:84:ASP:HB2	1.45	0.97
4:P:118:THR:HB	4:P:121:LYS:HB2	1.46	0.97
3:C:101:LEU:HD13	3:C:118:LEU:HD23	1.46	0.97
5:Q:14:ARG:HH21	5:Q:141:VAL:HG12	1.26	0.97
10:V:5:VAL:HG12	10:V:6:ARG:HG3	1.45	0.97
3:C:7:GLN:HE21	11:K:104:ASN:ND2	1.61	0.97
2:B:615:MET:HB3	2:B:626:ILE:HG12	1.45	0.97
8:T:84:ALA:HB2	8:T:87:ARG:HD2	1.45	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:ASN:HD21	2:B:961:LEU:HB2	1.26	0.97
9:I:6:PHE:HB3	9:I:12:ASN:O	1.64	0.97
4:P:56:ARG:HA	4:P:148:LEU:HD13	1.46	0.97
1:M:903:ASN:HD22	1:M:904:THR:N	1.62	0.97
4:P:159:THR:O	4:P:163:VAL:HG23	1.64	0.96
1:M:1006:ILE:HD11	5:Q:163:GLU:HG3	1.46	0.96
1:A:90:VAL:HB	1:A:297:GLN:NE2	1.81	0.96
1:M:779:PHE:CE1	1:M:785:PRO:HD3	2.01	0.96
8:T:59:ILE:HG22	8:T:60:ALA:H	1.31	0.96
1:A:53:LEU:HD23	1:A:54:ASN:N	1.79	0.96
1:A:1329:THR:HG22	1:A:1331:SER:H	1.28	0.96
1:A:34:LYS:HD2	4:P:187:THR:HG21	1.45	0.95
5:E:153:HIS:O	5:E:154:ILE:HG13	1.64	0.95
7:G:7:LEU:HB2	7:G:74:TYR:CE2	2.01	0.95
2:N:510:LYS:CG	2:N:511:PRO:HD3	1.96	0.95
5:Q:153:HIS:O	5:Q:154:ILE:HG13	1.67	0.95
1:M:41:MET:CB	1:M:49:LYS:HA	1.96	0.95
1:A:1116:LEU:N	1:A:1308:THR:HG22	1.80	0.95
2:N:880:THR:HB	2:N:934:LYS:HD2	1.49	0.95
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.45	0.95
2:B:516:ASN:N	2:B:516:ASN:HD22	1.64	0.95
3:C:238:ILE:HG22	3:C:243:VAL:HG23	1.49	0.95
3:O:47:ASP:HA	12:X:69:ALA:HB3	1.47	0.95
9:U:26:LEU:HD23	9:U:37:GLU:HA	1.45	0.95
9:U:6:PHE:HB3	9:U:12:ASN:O	1.67	0.95
1:M:855:THR:CG2	1:M:857:ARG:HE	1.80	0.95
1:A:285:PRO:HG2	1:A:288:ALA:HB3	1.45	0.95
2:B:510:LYS:HG3	2:B:511:PRO:HD3	0.97	0.94
2:B:114:PRO:HG3	2:B:181:LEU:HD11	1.45	0.94
10:J:64:ASN:HB3	10:J:65:PRO:CD	1.97	0.94
1:A:472:LEU:O	1:A:475:THR:HB	1.68	0.94
2:B:806:THR:HG22	2:B:808:ALA:H	1.31	0.94
10:V:64:ASN:HB3	10:V:65:PRO:CD	1.98	0.94
4:P:14:ARG:HH22	4:P:16:LYS:HD2	1.29	0.94
2:N:542:MET:HG2	2:N:747:MET:HE3	1.49	0.94
1:M:541:ILE:HD13	1:M:549:MET:HE1	1.48	0.94
2:N:289:LEU:HD13	2:N:375:ALA:HB2	1.49	0.94
2:N:1007:VAL:HG22	2:N:1008:PRO:HD2	1.50	0.94
2:N:508:LEU:N	14:5:1:DA:HO5'	1.65	0.94
1:A:308:ILE:HG22	1:A:309:ALA:H	1.33	0.94
1:A:770:VAL:HG12	1:A:771:GLU:HG3	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:MET:HA	1:A:210:ILE:HD13	1.47	0.93
7:S:91:VAL:HG23	7:S:143:ILE:HD11	1.46	0.93
6:R:93:ILE:HD11	6:R:134:ILE:HD11	1.50	0.93
2:B:1065:GLN:HE21	2:B:1067:ARG:H	1.03	0.93
2:N:806:THR:HG22	2:N:808:ALA:H	1.31	0.93
7:G:139:ILE:HG23	7:G:140:LYS:HG3	1.46	0.93
1:M:1364:ASN:OD1	1:M:1366:ARG:HG2	1.69	0.93
2:B:289:LEU:HD13	2:B:375:ALA:HB2	1.48	0.93
12:X:40:LEU:HD13	12:X:44:ASP:HB3	1.48	0.93
5:Q:114:ASN:O	5:Q:115:ASN:HB3	1.65	0.93
6:R:103:MET:CE	7:S:66:GLY:H	1.80	0.93
12:X:55:ILE:HG12	12:X:56:LEU:H	1.34	0.93
1:M:14:VAL:H	1:M:1432:GLN:HE22	1.07	0.93
1:M:344:ARG:HB3	1:M:344:ARG:HH11	1.34	0.93
3:C:123:ASN:ND2	3:C:125:MET:HG2	1.84	0.93
1:A:903:ASN:ND2	1:A:905:ASP:H	1.66	0.93
9:I:93:LYS:HD3	9:I:93:LYS:H	1.29	0.93
12:L:55:ILE:HD13	12:L:55:ILE:H	1.33	0.92
10:V:3:VAL:HG21	10:V:18:TRP:HB2	1.50	0.92
2:B:288:ALA:HB1	2:B:331:LEU:HD12	1.50	0.92
1:M:1036:ARG:HG2	1:M:1036:ARG:HH11	1.34	0.92
6:F:103:MET:CE	7:G:66:GLY:H	1.82	0.92
1:M:855:THR:HG21	1:M:857:ARG:NE	1.83	0.92
7:S:91:VAL:CG2	7:S:143:ILE:HD11	2.00	0.92
1:M:503:GLN:HE21	6:R:90:ARG:HH21	1.17	0.92
1:A:41:MET:CB	1:A:49:LYS:HA	2.00	0.92
1:M:90:VAL:HB	1:M:297:GLN:NE2	1.84	0.92
1:M:563:PRO:HG3	1:M:572:TRP:CZ2	2.04	0.92
2:B:1072:MET:CE	2:B:1085:ILE:HB	2.00	0.91
3:C:47:ASP:HA	12:L:69:ALA:HB3	1.50	0.91
1:A:7:SER:HB3	2:B:1193:GLN:HE22	1.32	0.91
1:M:1116:LEU:N	1:M:1308:THR:HG22	1.84	0.91
1:A:503:GLN:HE21	6:F:90:ARG:HH21	1.04	0.91
1:M:1444:MET:HG3	7:S:60:ARG:HA	1.50	0.91
9:I:26:LEU:HD23	9:I:37:GLU:HA	1.52	0.91
5:E:9:ILE:HD11	5:E:53:PRO:HD3	1.52	0.91
6:R:82:THR:HG22	6:R:84:TYR:H	1.35	0.91
10:J:63:TYR:O	10:J:64:ASN:HB2	1.71	0.91
10:J:5:VAL:HG12	10:J:6:ARG:HG3	1.52	0.91
1:M:961:ARG:HG2	1:M:965:GLN:HE21	1.35	0.91
1:A:567:LYS:HB3	8:H:96:VAL:N	1.86	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1007:VAL:HG22	2:B:1008:PRO:HD2	1.53	0.91
7:G:97:HIS:CD2	7:S:95:SER:HB3	2.05	0.91
5:E:114:ASN:O	5:E:115:ASN:HB3	1.69	0.91
7:G:151:ILE:HG21	7:S:113:HIS:O	1.70	0.90
2:N:217:ARG:HE	2:N:405:ARG:HB2	1.32	0.90
11:W:65:HIS:CD2	11:W:67:PHE:H	1.89	0.90
3:O:123:ASN:ND2	3:O:125:MET:HG2	1.84	0.90
4:D:118:THR:HB	4:D:121:LYS:HB2	1.52	0.90
4:P:154:PHE:CD1	4:P:163:VAL:HG21	2.06	0.90
2:B:737:THR:HG21	9:I:66:PRO:HA	1.53	0.90
2:B:792:MET:HE2	2:B:857:ARG:HH22	1.36	0.90
1:A:54:ASN:HB3	1:A:247:ARG:HH12	1.36	0.90
2:N:863:GLU:OE2	2:N:873:THR:HA	1.71	0.90
2:B:579:ARG:HB2	2:B:586:TRP:NE1	1.86	0.90
2:N:427:ASP:HA	2:N:430:ARG:HD2	1.54	0.89
10:V:48:ARG:HH11	10:V:48:ARG:HG2	1.36	0.89
1:M:1255:GLU:HG3	1:M:1258:HIS:CD2	2.06	0.89
1:M:316:GLN:HE21	1:M:317:LYS:HE3	1.36	0.89
13:1:22:DC:H2''	13:1:23:BRU:H5'	1.52	0.89
2:B:217:ARG:HE	2:B:405:ARG:HB2	1.35	0.89
8:T:130:ARG:NH1	8:T:130:ARG:HB2	1.88	0.89
1:A:14:VAL:H	1:A:1432:GLN:HE22	1.10	0.89
1:M:567:LYS:NZ	8:T:46:LEU:HB2	1.87	0.89
2:B:744:HIS:CD2	2:B:745:PRO:HD2	2.08	0.89
1:A:779:PHE:CE1	1:A:785:PRO:HD3	2.07	0.89
2:B:890:TYR:O	2:B:893:LEU:HB2	1.73	0.89
7:S:13:LEU:HD21	7:S:17:PHE:HB2	1.54	0.89
2:B:758:PHE:CE2	2:B:1044:ALA:HA	2.07	0.88
2:B:805:THR:HG22	2:B:806:THR:H	1.36	0.88
1:A:1444:MET:HG3	7:G:60:ARG:HA	1.53	0.88
1:A:687:LYS:O	1:A:690:VAL:HG12	1.72	0.88
13:4:22:DC:H2''	13:4:23:BRU:H5'	1.53	0.88
2:N:800:GLN:HB3	10:V:52:THR:CG2	2.02	0.88
9:I:111:THR:CG2	9:I:113:ASP:H	1.87	0.88
6:F:93:ILE:HD11	6:F:134:ILE:HD11	1.52	0.88
1:M:1224:LEU:HD11	1:M:1240:CYS:HB3	1.55	0.88
4:P:188:ALA:HB3	4:P:204:ASP:OD1	1.74	0.88
2:B:800:GLN:HB3	10:J:52:THR:CG2	2.02	0.88
2:B:1072:MET:HE2	2:B:1085:ILE:HB	1.52	0.88
4:P:156:ASP:HB3	4:P:158:GLU:OE1	1.73	0.88
13:1:13:DT:H2''	13:1:14:DA:OP2	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:308:ILE:HG22	1:M:309:ALA:H	1.39	0.88
1:A:629:LEU:O	1:A:633:VAL:HG23	1.74	0.88
1:A:913:LEU:HD12	1:A:914:GLU:H	1.36	0.88
1:M:903:ASN:ND2	1:M:905:ASP:H	1.72	0.88
1:M:687:LYS:O	1:M:690:VAL:HG12	1.72	0.88
1:A:1398:MET:HB2	1:A:1426:GLU:OE2	1.74	0.88
2:N:168:GLY:H	2:N:450:ALA:HB1	1.37	0.87
1:A:567:LYS:HB2	1:A:568:PRO:HD2	1.53	0.87
12:L:55:ILE:HG12	12:L:56:LEU:H	1.39	0.87
1:A:445:ASN:HB2	1:A:455:MET:HG2	1.56	0.87
2:N:273:LEU:HD12	2:N:280:ILE:HD12	1.55	0.87
10:V:64:ASN:HD22	10:V:65:PRO:HD3	1.39	0.87
1:M:902:LEU:HG	1:M:926:GLN:HG3	1.53	0.87
5:Q:117:THR:HG22	5:Q:119:SER:H	1.38	0.87
2:B:168:GLY:H	2:B:450:ALA:HB1	1.37	0.87
2:B:1095:LEU:HD12	2:B:1095:LEU:H	1.37	0.87
8:H:84:ALA:HB2	8:H:87:ARG:HD2	1.55	0.87
2:N:957:ASN:HD21	2:N:961:LEU:HB2	1.38	0.87
1:M:399:HIS:HB3	1:M:400:PRO:HD3	1.54	0.87
5:Q:94:LYS:HE2	5:Q:98:ILE:HD11	1.57	0.87
4:P:156:ASP:HB2	4:P:159:THR:HG23	1.55	0.87
10:V:63:TYR:O	10:V:64:ASN:HB2	1.75	0.87
1:M:316:GLN:NE2	1:M:317:LYS:HE3	1.90	0.87
1:M:288:ALA:HA	1:M:291:GLU:CD	1.96	0.87
1:A:399:HIS:HB3	1:A:400:PRO:HD3	1.54	0.86
8:H:100:THR:HG23	8:H:138:GLU:HA	1.56	0.86
1:A:1036:ARG:HH11	1:A:1036:ARG:HG2	1.40	0.86
2:N:226:PHE:HA	2:N:395:GLN:HG3	1.55	0.86
9:U:50:THR:HG22	9:U:51:ASN:H	1.39	0.86
1:M:768:GLN:HG2	1:M:816:HIS:HA	1.56	0.86
1:A:710:LEU:HD12	1:A:710:LEU:H	1.38	0.86
13:4:13:DT:H2"	13:4:14:DA:OP2	1.73	0.86
7:G:26:LEU:HD12	7:G:56:ILE:HD11	1.55	0.86
3:O:66:ARG:NH1	10:V:2:ILE:HG21	1.91	0.86
1:A:563:PRO:HG3	1:A:572:TRP:CZ2	2.11	0.86
2:B:880:THR:HB	2:B:934:LYS:HD2	1.58	0.86
2:N:805:THR:HG22	2:N:806:THR:H	1.39	0.86
11:W:65:HIS:HD2	11:W:67:PHE:H	1.21	0.86
2:N:1065:GLN:HE21	2:N:1067:ARG:H	1.17	0.86
1:A:902:LEU:HG	1:A:926:GLN:HG3	1.58	0.86
1:A:1341:ILE:HD12	1:A:1379:GLY:O	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:381:THR:HG22	1:M:383:TYR:H	1.41	0.86
1:M:853:ASP:OD1	1:M:855:THR:HB	1.76	0.86
8:H:59:ILE:HG22	8:H:60:ALA:N	1.90	0.85
5:E:117:THR:HB	5:E:120:ALA:HB2	1.57	0.85
1:M:90:VAL:HB	1:M:297:GLN:HE22	1.41	0.85
1:M:961:ARG:HG2	1:M:965:GLN:NE2	1.90	0.85
1:A:768:GLN:HG2	1:A:816:HIS:HA	1.55	0.85
2:N:241:ARG:HG2	2:N:253:THR:CG2	2.05	0.85
12:X:32:ALA:CB	12:X:55:ILE:HG13	2.06	0.85
1:M:265:LYS:CA	1:M:265:LYS:HE3	2.05	0.85
1:M:672:ASP:HB3	1:M:736:ASN:HD21	1.41	0.85
9:U:111:THR:HG22	9:U:113:ASP:N	1.90	0.85
1:A:903:ASN:HD22	1:A:904:THR:N	1.71	0.85
1:M:285:PRO:HG2	1:M:288:ALA:HB3	1.58	0.85
1:M:249:SER:O	1:M:250:ILE:HG13	1.74	0.85
4:P:71:LYS:HA	4:P:74:GLN:HG3	1.59	0.85
1:M:629:LEU:O	1:M:633:VAL:HG23	1.76	0.85
2:N:510:LYS:HG3	2:N:511:PRO:CD	2.05	0.85
1:M:54:ASN:HB3	1:M:247:ARG:HH12	1.41	0.85
2:B:583:ASN:HD21	2:B:628:THR:CG2	1.88	0.85
7:S:116:PRO:HD2	7:S:119:LEU:HD23	1.59	0.85
2:B:430:ARG:HB3	2:B:430:ARG:HH11	1.39	0.85
1:A:1364:ASN:OD1	1:A:1366:ARG:HG2	1.77	0.85
1:A:855:THR:HG21	1:A:857:ARG:NE	1.92	0.85
9:I:111:THR:HG22	9:I:113:ASP:N	1.91	0.85
4:P:208:GLU:O	4:P:212:LYS:HG3	1.77	0.85
2:B:744:HIS:HD2	2:B:745:PRO:CD	1.89	0.85
1:M:1341:ILE:HD12	1:M:1379:GLY:O	1.76	0.85
2:N:705:MET:H	2:N:710:LEU:HD12	1.42	0.85
1:M:567:LYS:HB2	1:M:568:PRO:HD2	1.58	0.85
6:R:103:MET:HE2	7:S:66:GLY:H	1.42	0.85
2:N:758:PHE:CE2	2:N:1044:ALA:HA	2.11	0.85
1:A:407:ARG:HD2	1:A:413:ILE:HD11	1.59	0.85
8:T:59:ILE:HG22	8:T:60:ALA:N	1.90	0.85
1:M:567:LYS:HB3	8:T:96:VAL:N	1.92	0.85
1:M:288:ALA:HA	1:M:291:GLU:OE1	1.77	0.85
2:N:241:ARG:HG2	2:N:253:THR:HG22	1.56	0.84
2:B:824:ILE:HG12	10:J:48:ARG:HH12	1.42	0.84
3:C:50:GLU:OE1	12:L:64:LEU:HD22	1.77	0.84
3:O:56:THR:HG21	3:O:145:CYS:SG	2.17	0.84
2:N:890:TYR:O	2:N:893:LEU:HB2	1.78	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:294:ASP:O	2:B:296:GLU:N	2.10	0.84
7:S:115:MET:HB3	7:S:116:PRO:HD2	1.59	0.84
7:S:138:THR:HG22	7:S:139:ILE:HG22	1.57	0.84
2:B:65:GLU:OE1	2:B:418:LYS:HE3	1.77	0.84
1:A:754:SER:H	1:A:757:ASN:HD22	1.22	0.84
1:A:667:GLY:HA2	1:A:670:ILE:HD11	1.58	0.84
6:F:79:ARG:HA	6:F:144:GLU:OE1	1.78	0.84
1:M:754:SER:H	1:M:757:ASN:HD22	1.23	0.84
2:N:261:ARG:HB3	2:N:261:ARG:HH11	1.43	0.84
5:Q:15:ALA:O	5:Q:19:VAL:HG23	1.76	0.84
2:B:295:GLY:H	2:B:298:LEU:HD23	1.42	0.84
8:T:82:PRO:C	8:T:84:ALA:H	1.78	0.84
7:S:122:ASN:ND2	7:S:125:SER:HB3	1.93	0.84
1:M:858:ASN:ND2	1:M:860:LEU:H	1.76	0.84
2:N:244:LEU:HD11	2:N:366:GLN:HE22	1.43	0.84
1:M:145:LYS:HA	1:M:145:LYS:HE3	1.60	0.83
3:O:73:GLN:HE21	3:O:75:MET:H	1.25	0.83
8:H:82:PRO:C	8:H:84:ALA:H	1.78	0.83
1:A:1385:THR:HG22	1:A:1387:HIS:H	1.42	0.83
6:F:82:THR:HG22	6:F:84:TYR:H	1.42	0.83
2:B:834:ASN:HB3	2:B:840:ILE:HG13	1.60	0.83
1:A:107:CYS:HA	1:A:171:GLN:NE2	1.93	0.83
2:B:878:GLN:HB2	2:B:879:ARG:HD2	1.61	0.83
12:L:30:ILE:O	12:L:56:LEU:HA	1.77	0.83
7:S:34:VAL:HG11	7:S:74:TYR:HE1	1.42	0.83
11:K:65:HIS:CD2	11:K:67:PHE:H	1.95	0.83
1:M:567:LYS:HD2	1:M:568:PRO:HD2	1.58	0.83
7:G:97:HIS:HD2	7:S:95:SER:HB3	1.44	0.83
11:W:58:PHE:HB3	11:W:76:GLN:HB3	1.59	0.83
1:A:43:GLU:HG3	1:A:46:THR:HB	1.59	0.83
7:S:13:LEU:CD2	7:S:17:PHE:HB2	2.08	0.83
2:B:642:ASP:HA	2:B:649:LYS:HA	1.60	0.83
1:A:451:HIS:CD2	1:A:1074:GLU:HG3	2.13	0.83
1:M:1110:ASN:N	1:M:1110:ASN:HD22	1.76	0.83
4:P:14:ARG:NH2	4:P:16:LYS:HD2	1.93	0.83
8:T:100:THR:HG23	8:T:138:GLU:HA	1.59	0.83
2:N:1072:MET:HE2	2:N:1085:ILE:HB	1.61	0.83
2:N:879:ARG:H	2:N:879:ARG:CZ	1.90	0.83
1:M:43:GLU:HG3	1:M:46:THR:HB	1.61	0.83
1:M:567:LYS:CG	1:M:568:PRO:HD2	2.09	0.83
13:4:12:DG:H4'	13:4:13:DT:OP1	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:226:PHE:HA	2:B:395:GLN:HG3	1.61	0.83
1:A:446:ARG:HB2	1:A:487:MET:SD	2.18	0.83
1:M:157:ASP:OD2	1:M:159:THR:HB	1.79	0.83
1:M:591:PHE:HA	1:M:595:THR:HG21	1.60	0.83
1:A:1420:ASP:HB3	1:A:1422:ARG:HG3	1.60	0.83
2:N:292:ILE:HD11	2:N:327:ARG:H	1.43	0.83
5:Q:117:THR:HB	5:Q:120:ALA:HB2	1.61	0.83
2:B:292:ILE:HD11	2:B:327:ARG:H	1.43	0.83
2:N:999:MET:HG3	2:N:1000:PRO:HD2	1.60	0.83
1:A:1445:ILE:HD12	1:A:1445:ILE:H	1.41	0.83
2:N:465:ASN:N	2:N:465:ASN:HD22	1.74	0.83
1:M:87:ALA:HB3	1:M:276:LEU:HD23	1.61	0.83
2:B:705:MET:H	2:B:710:LEU:HD12	1.43	0.82
12:L:32:ALA:CB	12:L:55:ILE:HG13	2.09	0.82
1:A:265:LYS:HE3	1:A:265:LYS:CA	2.09	0.82
2:N:862:GLN:HG2	2:N:963:PHE:HD1	1.42	0.82
6:R:111:LEU:HD12	6:R:111:LEU:H	1.43	0.82
10:V:64:ASN:HB3	10:V:65:PRO:HD3	1.62	0.82
7:S:7:LEU:HB2	7:S:74:TYR:CE2	2.15	0.82
1:A:1158:PRO:O	1:A:1159:ARG:HG3	1.79	0.82
2:N:763:GLN:HG2	2:N:765:PRO:HD2	1.61	0.82
1:A:33:ALA:HA	1:A:57:ARG:HH12	1.43	0.82
2:N:751:VAL:HG13	2:N:812:LEU:HD22	1.60	0.82
1:M:414:ASP:OD1	1:M:416:ARG:HG2	1.79	0.82
1:A:1161:THR:HG22	1:A:1163:ILE:N	1.94	0.82
5:Q:180:ARG:HH21	5:Q:192:ARG:HB2	1.44	0.82
1:M:710:LEU:H	1:M:710:LEU:HD12	1.45	0.82
1:M:66:LYS:HD3	1:M:67:CYS:N	1.95	0.82
2:N:642:ASP:HA	2:N:649:LYS:HA	1.61	0.82
2:B:745:PRO:O	2:B:748:ILE:HG12	1.79	0.82
8:T:109:LYS:HG2	8:T:110:ASP:OD1	1.80	0.82
2:B:515:HIS:H	2:B:518:HIS:HD2	1.27	0.82
6:R:90:ARG:HD3	6:R:155:LEU:HD13	1.62	0.82
2:N:1072:MET:CE	2:N:1085:ILE:HB	2.09	0.82
13:1:12:DG:H4'	13:1:13:DT:OP1	1.79	0.82
2:B:295:GLY:N	2:B:298:LEU:HD23	1.94	0.82
2:N:1201:LYS:HE2	2:N:1205:GLN:OE1	1.79	0.82
4:D:192:LYS:HD2	4:D:199:ASN:HA	1.59	0.82
2:N:1095:LEU:HD12	2:N:1095:LEU:H	1.45	0.82
3:O:148:ARG:NH1	3:O:149:LYS:HE3	1.93	0.82
1:M:265:LYS:HE3	1:M:265:LYS:HA	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:93:VAL:HG13	1:A:301:ALA:HB1	1.60	0.82
4:P:119:ARG:HB2	4:P:221:TYR:CE1	2.15	0.82
4:P:56:ARG:HH21	4:P:155:ARG:HG2	1.45	0.82
1:A:90:VAL:HB	1:A:297:GLN:HE22	1.41	0.82
2:N:393:LYS:HA	2:N:393:LYS:HE3	1.61	0.82
2:B:469:GLN:O	2:B:472:ALA:HB3	1.80	0.82
5:Q:19:VAL:O	5:Q:23:VAL:HG23	1.79	0.81
12:X:30:ILE:O	12:X:56:LEU:HA	1.79	0.81
4:P:146:GLN:O	4:P:149:THR:HG22	1.79	0.81
9:U:93:LYS:H	9:U:93:LYS:CD	1.93	0.81
3:O:244:VAL:O	3:O:248:ILE:HG13	1.79	0.81
3:O:128:ASN:O	3:O:129:ILE:HG13	1.80	0.81
1:A:265:LYS:HE3	1:A:265:LYS:N	1.95	0.81
1:M:244:PRO:HB2	1:M:245:PRO:HD3	1.62	0.81
2:B:390:LEU:O	2:B:392:ARG:HG3	1.80	0.81
1:A:157:ASP:OD2	1:A:159:THR:HB	1.81	0.81
7:G:13:LEU:CD2	7:G:17:PHE:HB2	2.11	0.81
8:T:40:LEU:HD23	8:T:42:ILE:HD11	1.61	0.81
2:B:879:ARG:CZ	2:B:879:ARG:H	1.93	0.81
1:A:858:ASN:ND2	1:A:860:LEU:H	1.78	0.81
11:K:57:LEU:HB2	11:K:76:GLN:HG2	1.60	0.81
2:B:1187:ASN:HD21	2:B:1190:ASP:HB3	1.46	0.81
1:A:1329:THR:HG22	1:A:1331:SER:N	1.94	0.81
1:A:470:LEU:HD23	1:A:470:LEU:H	1.45	0.81
10:V:1:MET:N	10:V:57:ILE:H	1.78	0.81
2:B:622:LYS:HE2	9:I:59:VAL:CG2	2.10	0.81
2:B:996:ARG:HH12	3:C:174:ALA:HA	1.44	0.81
5:E:19:VAL:O	5:E:23:VAL:HG23	1.80	0.81
11:K:58:PHE:HB3	11:K:76:GLN:HB3	1.61	0.81
1:A:392:VAL:HG13	1:A:415:LEU:HD11	1.61	0.81
2:N:65:GLU:OE1	2:N:418:LYS:HE3	1.80	0.81
3:O:238:ILE:HG22	3:O:243:VAL:HG23	1.61	0.81
1:A:683:ILE:HG21	1:A:801:GLU:HG3	1.63	0.81
8:T:84:ALA:CB	8:T:87:ARG:HD2	2.11	0.81
6:F:103:MET:HE2	7:G:66:GLY:H	1.45	0.81
7:S:126:ASN:HD22	7:S:127:PRO:HA	1.46	0.81
2:B:911:ILE:HD11	2:B:941:LEU:HD13	1.63	0.81
13:1:23:BRU:H5"	13:1:23:BRU:H6	1.61	0.81
9:I:50:THR:HG22	9:I:51:ASN:H	1.44	0.81
1:M:524:VAL:HG12	1:M:525:GLN:H	1.45	0.81
2:B:1100:ASP:OD2	11:K:1:MET:HB3	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:PRO:HA	1:A:270:LEU:HD23	1.63	0.80
3:O:252:GLN:HG3	11:W:95:ILE:HG23	1.63	0.80
2:B:1065:GLN:HE21	2:B:1067:ARG:N	1.79	0.80
7:G:122:ASN:ND2	7:G:125:SER:HB3	1.95	0.80
1:M:1161:THR:HG22	1:M:1163:ILE:N	1.94	0.80
1:M:567:LYS:HB2	1:M:568:PRO:CD	2.11	0.80
1:M:1259:MET:HA	1:M:1262:LYS:HD2	1.63	0.80
9:U:76:PRO:HD2	9:U:108:HIS:HD2	1.46	0.80
13:4:16:DT:H5'	13:4:16:DT:H6	1.46	0.80
2:B:370:PHE:HD2	2:B:373:ARG:HD3	1.46	0.80
7:G:138:THR:HG22	7:G:139:ILE:N	1.96	0.80
5:E:15:ALA:O	5:E:19:VAL:HG23	1.82	0.80
1:M:202:LEU:HB3	1:M:207:ILE:HD11	1.64	0.80
8:H:40:LEU:HD12	8:H:123:MET:HB2	1.63	0.80
1:M:1155:ASP:OD2	1:M:1161:THR:HG23	1.80	0.80
5:Q:48:ASP:HB3	5:Q:54:GLN:NE2	1.96	0.80
2:N:810:GLU:HB2	2:N:815:ARG:HH22	1.45	0.80
1:M:472:LEU:O	1:M:475:THR:HB	1.80	0.80
2:N:583:ASN:ND2	2:N:628:THR:HG22	1.97	0.80
2:B:583:ASN:ND2	2:B:628:THR:HG22	1.97	0.80
2:N:766:ARG:HH21	2:N:1020:ARG:CD	1.94	0.80
1:A:344:ARG:NH1	1:A:344:ARG:HB3	1.96	0.80
3:O:147:LEU:HB2	3:O:151:GLN:HB2	1.62	0.80
2:N:800:GLN:HB3	10:V:52:THR:HG21	1.64	0.80
2:B:261:ARG:HB3	2:B:261:ARG:HH11	1.45	0.80
9:U:105:SER:O	9:U:106:CYS:HB3	1.80	0.80
1:M:1170:ILE:H	1:M:1170:ILE:HD12	1.47	0.80
1:A:855:THR:CG2	1:A:857:ARG:HE	1.93	0.80
1:M:14:VAL:N	1:M:1432:GLN:HE22	1.81	0.80
1:A:981:LEU:HD21	1:A:1039:LYS:HA	1.63	0.80
13:1:16:DT:H5'	13:1:16:DT:H6	1.46	0.80
3:C:73:GLN:HE21	3:C:75:MET:H	1.30	0.80
4:P:214:LEU:HD13	4:P:214:LEU:O	1.82	0.79
10:J:1:MET:N	10:J:57:ILE:H	1.80	0.79
2:B:955:THR:HG22	2:B:956:THR:O	1.81	0.79
3:C:73:GLN:NE2	3:C:75:MET:HB2	1.97	0.79
4:P:176:GLU:OE2	4:P:197:SER:HB2	1.80	0.79
1:M:1387:HIS:O	1:M:1391:ARG:HG3	1.82	0.79
10:V:57:ILE:HA	10:V:60:PHE:HD2	1.46	0.79
1:M:1214:GLU:O	1:M:1218:GLN:HG2	1.82	0.79
3:O:50:GLU:OE1	12:X:64:LEU:HD22	1.83	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:469:GLN:O	2:N:472:ALA:HB3	1.82	0.79
1:M:167:CYS:HB2	1:M:169:ASN:HD21	1.45	0.79
2:N:351:TYR:O	2:N:355:ILE:HG13	1.82	0.79
10:J:57:ILE:HA	10:J:60:PHE:HD2	1.46	0.79
9:U:50:THR:HG22	9:U:51:ASN:N	1.98	0.79
1:M:534:LEU:O	1:M:574:GLY:HA3	1.82	0.79
1:M:236:LEU:HD11	1:M:304:MET:HE1	1.62	0.79
9:U:93:LYS:N	9:U:93:LYS:HD3	1.97	0.79
9:I:105:SER:O	9:I:106:CYS:HB3	1.79	0.79
1:M:93:VAL:HG13	1:M:301:ALA:HB1	1.63	0.79
9:I:65:ASP:HB3	9:I:68:LEU:HD12	1.62	0.79
6:F:111:LEU:N	6:F:111:LEU:HD12	1.98	0.79
2:N:583:ASN:HD21	2:N:628:THR:CG2	1.95	0.79
6:R:77:ASP:O	6:R:78:GLN:HB2	1.81	0.79
1:M:567:LYS:CB	1:M:568:PRO:HD2	2.12	0.79
8:T:89:LEU:C	8:T:91:ASP:H	1.84	0.79
1:A:7:SER:HB3	2:B:1193:GLN:NE2	1.98	0.79
2:B:309:GLN:HG3	9:I:52:ILE:HD11	1.64	0.79
1:M:535:THR:HG21	1:M:616:VAL:HA	1.63	0.79
2:N:778:MET:HE1	2:N:1094:ARG:HD3	1.63	0.79
12:X:61:THR:CG2	12:X:63:ARG:HG3	2.13	0.79
2:B:1224:PHE:CE1	5:E:171:LYS:HG3	2.17	0.79
1:A:567:LYS:HB2	1:A:568:PRO:CD	2.12	0.79
4:P:66:ARG:HD2	4:P:133:THR:HB	1.65	0.79
3:C:6:PRO:HB2	3:C:25:VAL:HG22	1.65	0.79
8:T:58:THR:HG22	8:T:59:ILE:H	1.48	0.79
1:A:40:THR:HG22	1:A:41:MET:HG3	1.63	0.79
2:N:603:LEU:HD13	2:N:608:ASP:HB2	1.65	0.79
6:F:90:ARG:HD3	6:F:155:LEU:HD13	1.63	0.79
1:A:722:LEU:H	1:A:722:LEU:HD12	1.48	0.79
9:I:76:PRO:HD2	9:I:108:HIS:HD2	1.47	0.79
4:D:208:GLU:O	4:D:212:LYS:HG3	1.83	0.79
9:I:93:LYS:H	9:I:93:LYS:CD	1.96	0.78
1:M:1308:THR:HG23	1:M:1309:ASP:N	1.97	0.78
1:A:503:GLN:NE2	6:F:90:ARG:HH21	1.80	0.78
7:S:95:SER:OG	7:S:96:GLN:N	2.15	0.78
7:G:34:VAL:HG11	7:G:74:TYR:HE1	1.48	0.78
13:4:23:BRU:H6	13:4:23:BRU:H5"	1.63	0.78
1:A:407:ARG:HG2	1:A:430:TRP:CZ2	2.16	0.78
1:M:1323:ASP:OD1	1:M:1325:THR:HG22	1.84	0.78
1:A:697:ALA:HB2	1:A:702:LEU:HD11	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1291:VAL:HG22	1:M:1292:PRO:HD2	1.64	0.78
1:A:1308:THR:HG23	1:A:1309:ASP:N	1.98	0.78
1:A:14:VAL:N	1:A:1432:GLN:HE22	1.81	0.78
1:M:225:ASN:ND2	1:M:228:PHE:H	1.81	0.78
8:H:58:THR:HG22	8:H:59:ILE:H	1.49	0.78
1:M:693:VAL:HG21	1:M:721:PHE:HE1	1.48	0.78
6:R:111:LEU:HD12	6:R:111:LEU:N	1.98	0.78
1:A:390:GLN:HE21	1:A:394:ASN:HD22	1.31	0.78
2:B:846:ILE:HG23	2:B:974:PRO:HG2	1.65	0.78
5:E:48:ASP:HB3	5:E:54:GLN:NE2	1.99	0.78
9:U:111:THR:CG2	9:U:113:ASP:H	1.92	0.78
4:P:194:LEU:HD13	7:S:86:VAL:HG11	1.65	0.78
2:B:862:GLN:HG2	2:B:963:PHE:HD1	1.48	0.78
1:M:1081:LEU:HD11	1:M:1097:GLY:HA3	1.66	0.78
4:D:159:THR:O	4:D:163:VAL:HG23	1.84	0.78
8:H:89:LEU:C	8:H:91:ASP:H	1.85	0.78
4:P:158:GLU:CD	4:P:158:GLU:H	1.86	0.78
2:B:603:LEU:HD13	2:B:608:ASP:HB2	1.66	0.78
2:B:800:GLN:HB3	10:J:52:THR:HG21	1.65	0.78
1:A:913:LEU:HD12	1:A:914:GLU:N	1.98	0.78
2:N:737:THR:HG21	9:U:66:PRO:HA	1.64	0.78
11:K:47:ARG:HB3	11:K:47:ARG:HH11	1.46	0.78
1:M:830:LYS:O	1:M:834:THR:HB	1.84	0.78
7:S:119:LEU:HD11	7:S:130:TYR:HB3	1.66	0.78
7:S:34:VAL:HG11	7:S:74:TYR:CE1	2.19	0.78
4:P:47:LEU:HD13	4:P:48:ILE:N	1.99	0.78
1:M:981:LEU:HD21	1:M:1039:LYS:HA	1.66	0.78
8:T:17:PRO:HB3	8:T:24:CYS:SG	2.23	0.78
1:A:591:PHE:HA	1:A:595:THR:HG21	1.66	0.78
2:N:516:ASN:ND2	2:N:516:ASN:H	1.81	0.78
3:O:148:ARG:HD3	3:O:149:LYS:HG3	1.66	0.78
2:N:745:PRO:O	2:N:748:ILE:HG12	1.84	0.78
2:N:824:ILE:HG12	10:V:48:ARG:HH12	1.49	0.78
1:M:1094:VAL:HG13	1:M:1113:THR:CG2	2.14	0.78
1:A:225:ASN:ND2	1:A:228:PHE:H	1.80	0.78
7:G:15:PRO:HA	7:G:18:PHE:CD1	2.19	0.78
2:N:865:LYS:HB2	2:N:961:LEU:HD11	1.64	0.78
2:B:751:VAL:HG13	2:B:812:LEU:HD22	1.63	0.78
7:S:129:SER:HB2	7:S:138:THR:OG1	1.84	0.78
1:A:934:LYS:O	1:A:937:VAL:HG12	1.83	0.78
1:M:567:LYS:CD	1:M:568:PRO:HD2	2.12	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:84:ASP:O	5:E:86:PRO:HD3	1.84	0.78
1:M:503:GLN:NE2	6:R:90:ARG:HH21	1.81	0.78
7:S:115:MET:HB3	7:S:119:LEU:HD23	1.65	0.78
2:B:792:MET:HE2	2:B:857:ARG:NH2	1.97	0.78
2:B:857:ARG:HD2	2:B:945:GLU:OE1	1.83	0.78
3:C:147:LEU:HB2	3:C:151:GLN:HB2	1.64	0.77
9:U:80:SER:OG	9:U:105:SER:HB2	1.83	0.77
1:M:741:ASN:HD22	1:M:742:ASN:N	1.83	0.77
1:A:565:ILE:HG23	1:A:567:LYS:HG2	1.64	0.77
1:A:567:LYS:NZ	8:H:46:LEU:HB2	2.00	0.77
1:A:567:LYS:CB	1:A:568:PRO:HD2	2.13	0.77
10:V:3:VAL:HG21	10:V:18:TRP:CB	2.13	0.77
10:V:1:MET:H2	10:V:57:ILE:H	1.30	0.77
1:A:458:HIS:CE1	1:A:507:VAL:HG21	2.20	0.77
9:I:80:SER:OG	9:I:105:SER:HB2	1.84	0.77
9:U:74:GLU:HB3	9:U:81:ARG:HD2	1.65	0.77
1:M:855:THR:HG23	1:M:857:ARG:HG3	1.66	0.77
14:2:5:DC:C2'	14:2:6:DT:H72	2.15	0.77
11:W:47:ARG:HB3	11:W:47:ARG:HH11	1.50	0.77
1:M:590:ARG:O	1:M:591:PHE:HB2	1.84	0.77
7:S:85:GLU:HG2	7:S:87:VAL:HG12	1.66	0.77
1:M:93:VAL:HG22	1:M:301:ALA:HA	1.64	0.77
2:N:615:MET:HB3	2:N:626:ILE:HG12	1.65	0.77
2:N:294:ASP:O	2:N:296:GLU:N	2.16	0.77
1:A:1323:ASP:OD1	1:A:1325:THR:HG22	1.85	0.77
4:D:146:GLN:O	4:D:149:THR:HG22	1.83	0.77
1:M:899:VAL:HB	1:M:929:LEU:HD12	1.65	0.77
7:S:53:ASN:N	7:S:53:ASN:HD22	1.81	0.77
1:A:855:THR:HG23	1:A:857:ARG:HG3	1.65	0.77
1:A:287:HIS:HA	1:A:290:GLU:HG2	1.66	0.77
2:B:953:LEU:HD21	2:B:965:LYS:HB2	1.66	0.77
2:B:351:TYR:CE1	2:B:355:ILE:HD11	2.20	0.77
1:M:565:ILE:HG23	1:M:567:LYS:HG2	1.66	0.77
1:M:596:THR:O	1:M:598:LEU:N	2.17	0.77
1:M:407:ARG:HD2	1:M:413:ILE:HD11	1.65	0.77
8:T:127:GLY:O	8:T:128:ASN:HB2	1.82	0.77
14:5:5:DC:C2'	14:5:6:DT:H72	2.15	0.77
1:M:537:ARG:HD2	8:T:20:TYR:CE1	2.20	0.77
4:D:187:THR:HG21	1:M:34:LYS:NZ	2.00	0.77
1:M:821:ARG:HH11	1:M:821:ARG:HB2	1.48	0.77
6:F:111:LEU:HD12	6:F:111:LEU:H	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1094:VAL:HG13	1:M:1113:THR:HG21	1.66	0.77
12:X:32:ALA:HB2	12:X:55:ILE:HG13	1.64	0.77
12:X:47:ARG:HB2	12:X:47:ARG:HH11	1.50	0.77
2:N:579:ARG:HB2	2:N:586:TRP:HE1	1.48	0.77
5:Q:176:PRO:O	5:Q:212:ARG:HA	1.85	0.77
2:B:100:PRO:HG3	2:B:172:ILE:HD12	1.67	0.77
2:N:766:ARG:HH21	2:N:1020:ARG:HD3	1.48	0.77
1:M:1095:THR:HG21	1:M:1112:LYS:HB2	1.66	0.77
1:M:1293:SER:OG	1:M:1295:THR:HG23	1.84	0.77
8:H:40:LEU:HD23	8:H:42:ILE:HD11	1.66	0.76
2:B:273:LEU:HD21	2:B:360:PHE:HD1	1.49	0.76
1:M:172:PRO:HB3	1:M:185:TRP:CE2	2.20	0.76
10:J:3:VAL:HG21	10:J:18:TRP:CB	2.13	0.76
8:T:15:VAL:HG22	8:T:26:ILE:HG12	1.67	0.76
8:T:130:ARG:HH11	8:T:130:ARG:CB	1.99	0.76
7:S:106:MET:HG2	7:S:107:LYS:N	1.98	0.76
1:A:1197:LEU:HD11	1:A:1238:ILE:HD11	1.67	0.76
1:M:184:SER:HB3	1:M:199:LEU:HD23	1.65	0.76
5:Q:84:ASP:O	5:Q:86:PRO:HD3	1.86	0.76
12:L:53:HIS:HB3	12:L:55:ILE:CD1	2.15	0.76
1:A:1116:LEU:H	1:A:1308:THR:HG22	1.50	0.76
1:A:288:ALA:HA	1:A:291:GLU:CD	2.06	0.76
1:M:310:GLY:O	1:M:312:PRO:HD2	1.84	0.76
3:O:69:LEU:HD12	3:O:69:LEU:H	1.50	0.76
5:E:117:THR:HB	5:E:120:ALA:CB	2.15	0.76
2:B:863:GLU:OE2	2:B:873:THR:HA	1.84	0.76
1:M:913:LEU:HD12	1:M:914:GLU:H	1.48	0.76
3:O:51:VAL:HG22	3:O:155:LEU:HD22	1.67	0.76
1:A:541:ILE:HD13	1:A:549:MET:CE	2.15	0.76
1:A:1385:THR:CG2	1:A:1387:HIS:H	1.98	0.76
1:A:87:ALA:HB3	1:A:276:LEU:HD23	1.66	0.76
1:A:889:SER:HB3	1:A:1297:GLU:HG3	1.68	0.76
2:B:542:MET:HE2	2:B:747:MET:HE2	1.67	0.76
1:M:541:ILE:HD13	1:M:549:MET:CE	2.15	0.76
1:M:770:VAL:HG12	1:M:771:GLU:HG3	1.68	0.76
1:M:822:GLU:HG3	2:N:513:GLN:NE2	2.00	0.76
1:A:963:ILE:HD13	1:A:1049:ILE:HG13	1.65	0.76
2:B:1069:PHE:HD1	2:B:1069:PHE:H	1.30	0.76
3:O:11:ARG:HE	3:O:21:ILE:HD11	1.51	0.76
2:B:579:ARG:HH11	2:B:579:ARG:HG2	1.48	0.76
2:N:172:ILE:HD13	2:N:178:ASN:HD22	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:770:GLN:OE1	2:B:983:ARG:HA	1.86	0.76
2:N:617:ARG:HE	2:N:619:ILE:HG12	1.50	0.76
4:D:154:PHE:HE2	4:D:218:GLU:HA	1.51	0.76
1:A:824:LEU:O	1:A:827:THR:HG22	1.85	0.76
8:T:95:TYR:CE2	8:T:97:MET:HG3	2.16	0.76
1:M:1006:ILE:HD11	5:Q:163:GLU:CG	2.16	0.76
1:M:794:PRO:HG2	1:M:795:GLU:OE2	1.86	0.76
1:M:89:PRO:O	1:M:204:THR:HG21	1.85	0.76
1:A:353:ILE:HG21	1:A:487:MET:CG	2.14	0.76
11:W:65:HIS:HD2	11:W:67:PHE:N	1.84	0.76
2:B:778:MET:HE1	2:B:1094:ARG:HD3	1.68	0.76
1:M:535:THR:CG2	1:M:616:VAL:HA	2.14	0.76
1:M:164:ARG:HG3	1:M:165:GLY:H	1.51	0.76
1:A:1387:HIS:O	1:A:1391:ARG:HG3	1.85	0.76
2:N:313:MET:HE2	2:N:390:LEU:HD11	1.68	0.76
1:A:534:LEU:O	1:A:574:GLY:HA3	1.85	0.76
3:C:93:ASP:OD1	3:C:122:SER:HB2	1.86	0.76
2:B:737:THR:CG2	9:I:66:PRO:HA	2.15	0.75
2:N:792:MET:HE2	2:N:857:ARG:HH22	1.51	0.75
1:A:93:VAL:HG22	1:A:301:ALA:HA	1.68	0.75
5:Q:9:ILE:HD11	5:Q:53:PRO:HD3	1.66	0.75
5:E:48:ASP:CG	5:E:49:SER:H	1.86	0.75
2:B:169:ARG:HB2	2:B:454:THR:HG23	1.66	0.75
1:A:1223:ASP:HA	1:A:1243:VAL:CG2	2.15	0.75
2:B:1201:LYS:HE2	2:B:1205:GLN:OE1	1.86	0.75
8:T:40:LEU:HD12	8:T:123:MET:HB2	1.67	0.75
7:G:34:VAL:HG12	7:G:45:ILE:HG21	1.68	0.75
1:A:858:ASN:C	1:A:858:ASN:HD22	1.88	0.75
1:M:1433:MET:HE3	7:S:63:PRO:HB2	1.67	0.75
7:S:83:LYS:HG3	7:S:148:GLU:O	1.86	0.75
1:A:869:GLY:O	5:E:204:THR:HG21	1.87	0.75
1:A:567:LYS:HB2	8:H:95:TYR:HA	1.66	0.75
3:O:56:THR:HG22	3:O:57:VAL:H	1.50	0.75
3:C:56:THR:HG22	3:C:57:VAL:H	1.51	0.75
1:M:108:MET:CA	1:M:210:ILE:HD13	2.15	0.75
6:F:109:VAL:HG12	6:F:110:ASP:N	2.02	0.75
2:N:60:GLN:O	2:N:63:ILE:HG22	1.86	0.75
2:N:744:HIS:CD2	2:N:745:PRO:HD2	2.22	0.75
13:1:22:DC:H2''	13:1:23:BRU:C5'	2.14	0.75
5:Q:117:THR:HB	5:Q:120:ALA:CB	2.16	0.75
9:U:50:THR:CG2	9:U:52:ILE:HG12	2.17	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:65:ASP:HB3	9:U:68:LEU:HD12	1.68	0.75
2:N:25:ILE:CG2	2:N:658:ILE:HD12	2.16	0.75
6:F:130:ILE:HB	6:F:148:VAL:HG21	1.68	0.75
1:M:842:VAL:HG11	2:N:1136:ASP:OD2	1.87	0.75
4:P:14:ARG:HB3	4:P:14:ARG:HH11	1.50	0.75
1:M:1218:GLN:O	1:M:1221:LYS:HE3	1.86	0.75
5:E:202:SER:OG	5:E:204:THR:HG22	1.87	0.75
1:A:172:PRO:HB3	1:A:185:TRP:CE2	2.22	0.75
6:F:119:ARG:HH11	6:F:119:ARG:HG3	1.51	0.75
2:B:36:ALA:HA	2:B:39:ARG:HD2	1.69	0.75
7:S:115:MET:O	7:S:164:LYS:HD3	1.87	0.75
2:N:35:SER:HA	2:N:811:TYR:HE2	1.51	0.75
3:O:183:TRP:O	3:O:185:LYS:N	2.19	0.75
1:A:34:LYS:CD	4:P:187:THR:HG21	2.17	0.75
2:N:744:HIS:HD2	2:N:745:PRO:CD	2.00	0.75
1:M:858:ASN:C	1:M:858:ASN:HD22	1.87	0.75
3:C:183:TRP:O	3:C:185:LYS:N	2.19	0.75
1:A:107:CYS:CA	1:A:171:GLN:HE22	1.99	0.75
2:B:800:GLN:HB3	10:J:52:THR:HG22	1.69	0.75
4:D:66:ARG:HD2	4:D:133:THR:HB	1.68	0.75
2:N:1187:ASN:HD21	2:N:1190:ASP:HB3	1.52	0.75
1:A:1006:ILE:HD11	5:E:163:GLU:HG3	1.68	0.75
2:B:361:LEU:HD21	2:B:377:PHE:CD2	2.21	0.74
2:N:129:PHE:HE2	2:N:166:PHE:HB2	1.52	0.74
2:N:917:PRO:O	2:N:918:ILE:HG13	1.86	0.74
1:M:973:ILE:HD13	1:M:1037:LEU:HA	1.68	0.74
4:D:71:LYS:HA	4:D:74:GLN:HB2	1.68	0.74
3:C:143:LEU:HD21	3:C:146:LYS:HE3	1.69	0.74
2:N:955:THR:HG22	2:N:956:THR:O	1.87	0.74
12:X:61:THR:HG22	12:X:63:ARG:HG3	1.69	0.74
8:T:130:ARG:HD3	8:T:130:ARG:N	2.01	0.74
1:M:1255:GLU:O	1:M:1255:GLU:HG2	1.87	0.74
3:C:238:ILE:CG2	3:C:243:VAL:HG23	2.16	0.74
1:M:167:CYS:HB2	1:M:169:ASN:ND2	2.01	0.74
9:U:55:THR:HG23	9:U:100:PHE:CD2	2.22	0.74
1:M:869:GLY:O	5:Q:204:THR:HG21	1.87	0.74
12:L:38:LEU:HD13	12:L:49:LYS:HE2	1.69	0.74
1:M:446:ARG:HB2	1:M:487:MET:SD	2.26	0.74
3:C:244:VAL:O	3:C:248:ILE:HG13	1.87	0.74
1:M:37:PHE:N	1:M:37:PHE:CD1	2.53	0.74
11:K:45:LEU:HG	11:K:94:ILE:HD13	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:78:PRO:HA	2:N:1201:LYS:HZ2	1.52	0.74
8:T:8:ASP:OD2	8:T:9:ILE:N	2.19	0.74
2:N:1224:PHE:CZ	5:Q:171:LYS:HG3	2.22	0.74
1:M:231:PRO:HA	1:M:234:MET:HE2	1.69	0.74
2:N:345:LYS:O	2:N:347:LYS:HG2	1.87	0.74
12:X:55:ILE:HD13	12:X:55:ILE:H	1.53	0.74
12:L:26:THR:HG22	12:L:27:LEU:N	2.01	0.74
2:B:549:THR:HB	2:B:628:THR:OG1	1.87	0.74
3:O:147:LEU:HD23	3:O:147:LEU:N	2.03	0.74
4:P:12:ARG:HH11	4:P:12:ARG:HG2	1.52	0.74
13:4:22:DC:H2''	13:4:23:BRU:C5'	2.15	0.74
2:N:261:ARG:HB3	2:N:261:ARG:NH1	2.02	0.74
1:M:451:HIS:CD2	1:M:1074:GLU:HG3	2.23	0.74
3:C:7:GLN:HE21	11:K:104:ASN:HD21	1.34	0.74
1:A:537:ARG:HD2	8:H:20:TYR:CE1	2.22	0.74
1:M:1015:VAL:HG12	1:M:1019:CYS:SG	2.27	0.74
4:D:187:THR:HG21	1:M:34:LYS:HZ3	1.51	0.74
6:F:90:ARG:HD3	6:F:155:LEU:CD1	2.18	0.74
1:A:470:LEU:HD23	1:A:470:LEU:N	2.02	0.74
1:A:1293:SER:OG	1:A:1295:THR:HG23	1.88	0.74
2:B:345:LYS:O	2:B:347:LYS:HG2	1.87	0.74
9:I:111:THR:CG2	9:I:112:SER:N	2.50	0.74
2:N:309:GLN:HG3	9:U:52:ILE:HD11	1.70	0.74
1:M:1105:LEU:HD22	1:M:1384:VAL:HG21	1.68	0.74
1:A:69:THR:O	1:A:71:GLN:N	2.21	0.74
4:P:190:GLU:HA	7:S:167:TYR:CD1	2.22	0.74
1:M:353:ILE:HG21	1:M:487:MET:CG	2.17	0.74
12:X:49:LYS:O	12:X:50:ASP:HB2	1.86	0.74
9:U:50:THR:HG22	9:U:52:ILE:H	1.52	0.74
3:O:183:TRP:CZ2	3:O:207:CYS:HB3	2.23	0.74
4:D:29:LEU:HD22	4:D:29:LEU:N	2.03	0.74
1:A:596:THR:O	1:A:598:LEU:N	2.20	0.73
7:G:34:VAL:CG1	7:G:45:ILE:HG21	2.18	0.73
2:B:805:THR:HA	2:B:809:MET:HE1	1.68	0.73
7:G:26:LEU:HD12	7:G:56:ILE:CD1	2.17	0.73
6:F:147:SER:OG	6:F:150:GLU:HG3	1.88	0.73
1:A:567:LYS:HD2	1:A:568:PRO:HD2	1.68	0.73
1:A:590:ARG:O	1:A:591:PHE:HB2	1.88	0.73
2:B:798:TYR:CD1	10:J:4:PRO:HG3	2.23	0.73
2:B:865:LYS:HB2	2:B:961:LEU:HD11	1.69	0.73
1:M:287:HIS:HA	1:M:290:GLU:HG2	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:853:ASP:OD1	1:A:855:THR:HB	1.87	0.73
1:A:901:LEU:H	1:A:926:GLN:NE2	1.85	0.73
9:U:74:GLU:HB3	9:U:81:ARG:CD	2.18	0.73
2:B:637:LEU:HD12	2:B:693:ILE:HD12	1.70	0.73
1:A:1224:LEU:HD11	1:A:1240:CYS:HB3	1.69	0.73
8:H:127:GLY:O	8:H:128:ASN:HB2	1.85	0.73
11:W:45:LEU:HG	11:W:94:ILE:HD13	1.70	0.73
2:B:241:ARG:HG2	2:B:253:THR:HG22	1.69	0.73
7:G:53:ASN:HD22	7:G:53:ASN:N	1.84	0.73
12:X:26:THR:HG22	12:X:27:LEU:N	2.02	0.73
2:N:806:THR:HG22	2:N:808:ALA:N	2.04	0.73
2:B:277:LYS:HG2	2:B:336:ARG:HB3	1.70	0.73
2:B:53:GLN:HG2	2:B:547:VAL:HG22	1.70	0.73
6:F:69:LEU:HB3	6:F:71:GLU:OE1	1.88	0.73
12:X:30:ILE:HD11	12:X:59:ALA:HB2	1.68	0.73
12:L:60:ARG:HG2	12:L:61:THR:H	1.53	0.73
3:C:203:GLN:HG2	3:C:207:CYS:SG	2.29	0.73
1:A:1107:VAL:HG12	1:A:1107:VAL:O	1.87	0.73
6:R:109:VAL:HG12	6:R:110:ASP:N	2.02	0.73
12:X:47:ARG:HG3	12:X:52:GLY:O	1.87	0.73
1:A:33:ALA:HA	1:A:57:ARG:NH1	2.03	0.73
1:M:590:ARG:HH11	1:M:590:ARG:HG2	1.52	0.73
2:N:613:VAL:HG13	2:N:627:PHE:O	1.89	0.73
2:N:800:GLN:HB3	10:V:52:THR:HG22	1.70	0.73
2:N:364:ILE:HG13	2:N:585:VAL:HG13	1.70	0.73
7:S:51:TYR:O	7:S:54:ILE:HG13	1.88	0.73
1:M:896:ARG:HD3	1:M:897:TYR:CE1	2.23	0.73
8:H:84:ALA:CB	8:H:87:ARG:HD2	2.17	0.73
1:A:567:LYS:CB	8:H:95:TYR:HA	2.17	0.73
4:P:141:LEU:O	4:P:145:MET:HG2	1.89	0.73
2:B:516:ASN:ND2	2:B:516:ASN:N	2.35	0.73
1:A:372:LYS:HA	1:A:435:HIS:ND1	2.02	0.73
2:N:1065:GLN:HE21	2:N:1067:ARG:N	1.86	0.73
3:C:183:TRP:CZ2	3:C:207:CYS:HB3	2.24	0.73
1:A:1015:VAL:HG12	1:A:1019:CYS:SG	2.27	0.73
2:N:308:TRP:CH2	9:U:45:ARG:HG2	2.24	0.73
1:M:66:LYS:NZ	1:M:68:GLN:H	1.87	0.73
1:M:567:LYS:HB2	8:T:95:TYR:HA	1.69	0.73
7:S:129:SER:HB2	7:S:138:THR:HG1	1.54	0.73
2:N:333:PHE:O	2:N:334:ILE:HG13	1.89	0.73
2:B:294:ASP:C	2:B:296:GLU:H	1.91	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:69:THR:O	1:M:71:GLN:N	2.22	0.73
1:M:107:CYS:HA	1:M:171:GLN:HE22	1.54	0.73
9:I:50:THR:HG22	9:I:51:ASN:N	2.04	0.73
5:E:147:HIS:HB3	5:E:150:VAL:HG23	1.71	0.73
1:M:321:PRO:O	1:M:322:VAL:HG12	1.89	0.73
1:M:1223:ASP:HA	1:M:1243:VAL:HG22	1.70	0.73
1:A:250:ILE:HG22	1:A:250:ILE:O	1.87	0.73
1:A:70:CYS:O	1:A:72:GLU:HG2	1.89	0.73
4:P:189:ASP:O	4:P:193:THR:HB	1.89	0.73
4:P:207:LEU:O	4:P:211:LEU:HD12	1.89	0.73
3:C:66:ARG:NH1	10:J:2:ILE:HG21	2.04	0.73
2:N:579:ARG:HB2	2:N:586:TRP:NE1	2.03	0.73
2:N:589:VAL:HG12	2:N:590:HIS:H	1.52	0.73
2:N:879:ARG:H	2:N:879:ARG:NH1	1.86	0.73
1:M:225:ASN:ND2	1:M:227:VAL:H	1.86	0.73
1:M:337:ARG:HD3	2:N:1132:GLU:OE1	1.89	0.73
1:A:62:ASP:O	1:A:63:ARG:C	2.28	0.72
1:A:62:ASP:O	1:A:64:ASN:HB2	1.89	0.72
2:N:644:GLU:HB3	2:N:648:HIS:O	1.89	0.72
1:A:901:LEU:HA	1:A:907:THR:OG1	1.88	0.72
5:E:176:PRO:O	5:E:212:ARG:HA	1.89	0.72
2:B:313:MET:HE2	2:B:390:LEU:HD11	1.70	0.72
6:F:109:VAL:HG12	6:F:110:ASP:H	1.54	0.72
1:M:11:LEU:O	1:M:11:LEU:HD23	1.89	0.72
1:A:535:THR:HG21	1:A:616:VAL:HA	1.71	0.72
1:A:829:VAL:HG21	2:B:508:LEU:HD13	1.69	0.72
7:S:116:PRO:HG2	7:S:119:LEU:CB	2.19	0.72
2:N:911:ILE:HD11	2:N:941:LEU:HD13	1.71	0.72
4:D:154:PHE:CE2	4:D:218:GLU:HA	2.24	0.72
1:M:1394:THR:HG21	1:M:1398:MET:SD	2.28	0.72
1:A:896:ARG:HD3	1:A:897:TYR:CE1	2.24	0.72
3:O:263:THR:O	3:O:266:ASP:HB2	1.89	0.72
1:A:40:THR:HG23	1:A:54:ASN:HD21	1.54	0.72
1:M:62:ASP:O	1:M:63:ARG:C	2.28	0.72
1:M:66:LYS:HD3	1:M:67:CYS:H	1.52	0.72
2:N:542:MET:HG2	2:N:747:MET:CE	2.18	0.72
1:M:667:GLY:HA2	1:M:670:ILE:HD11	1.70	0.72
1:M:860:LEU:HD11	1:M:1393:ASN:HB2	1.71	0.72
9:U:111:THR:CG2	9:U:112:SER:N	2.52	0.72
2:N:549:THR:HG22	2:N:550:ASP:N	2.05	0.72
7:S:1:MET:SD	7:S:2:PHE:N	2.63	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:297:GLN:CA	1:A:297:GLN:HE21	2.02	0.72
2:N:1016:ALA:O	2:N:1020:ARG:HG3	1.89	0.72
2:N:582:VAL:HG23	2:N:626:ILE:HB	1.70	0.72
1:A:567:LYS:CG	1:A:568:PRO:HD2	2.18	0.72
1:A:49:LYS:HE2	1:A:61:ILE:HD12	1.71	0.72
2:N:287:ARG:HG2	2:N:292:ILE:HA	1.72	0.72
2:B:1095:LEU:HD12	2:B:1095:LEU:N	2.04	0.72
2:B:292:ILE:HD11	2:B:327:ARG:N	2.03	0.72
2:B:589:VAL:HG12	2:B:590:HIS:H	1.53	0.72
2:B:600:LEU:O	2:B:609:ILE:HD11	1.90	0.72
1:A:693:VAL:HG21	1:A:721:PHE:HE1	1.55	0.72
1:M:445:ASN:HB2	1:M:455:MET:HG2	1.70	0.72
7:S:87:VAL:CG2	7:S:103:VAL:HG21	2.19	0.72
5:E:180:ARG:HH21	5:E:192:ARG:HB2	1.54	0.72
2:N:1183:LYS:HE3	2:N:1183:LYS:N	2.04	0.72
1:M:332:LYS:HG2	1:M:333:GLU:HG2	1.72	0.72
2:B:724:ASP:OD2	2:B:727:LYS:HG3	1.90	0.72
2:N:622:LYS:NZ	9:U:59:VAL:HG13	2.05	0.72
2:N:1096:ARG:O	2:N:1097:HIS:HB2	1.90	0.72
5:E:23:VAL:O	5:E:28:TYR:HB2	1.90	0.72
3:O:36:VAL:HG21	3:O:251:LEU:HD13	1.72	0.72
1:A:1118:VAL:CG2	1:A:1306:LEU:HB2	2.20	0.72
1:A:1242:VAL:HG12	1:A:1243:VAL:N	2.05	0.72
5:E:14:ARG:HH21	5:E:141:VAL:HG12	1.54	0.72
1:A:601:LYS:HB2	1:A:603:ASN:ND2	2.05	0.72
1:A:1348:LEU:O	1:A:1352:VAL:HG23	1.89	0.72
2:B:549:THR:HG22	2:B:550:ASP:N	2.04	0.72
1:M:1385:THR:HG22	1:M:1387:HIS:N	2.04	0.72
1:M:517:ASN:HD22	1:M:1364:ASN:HD22	1.38	0.72
2:B:278:GLN:HG2	2:B:279:ASP:H	1.54	0.72
2:N:294:ASP:C	2:N:296:GLU:H	1.93	0.72
2:N:1224:PHE:CE1	5:Q:171:LYS:HG3	2.25	0.72
2:N:56:ASP:HB3	2:N:57:TYR:CD1	2.25	0.72
1:A:1094:VAL:HG13	1:A:1113:THR:CG2	2.19	0.72
3:O:8:VAL:O	3:O:9:LYS:HG3	1.90	0.72
1:A:310:GLY:O	1:A:312:PRO:HD2	1.89	0.72
1:M:7:SER:OG	2:N:1161:HIS:HE1	1.72	0.72
2:N:336:ARG:HH11	2:N:336:ARG:HG3	1.56	0.71
2:N:766:ARG:HH22	2:N:1020:ARG:HH11	1.38	0.71
1:M:889:SER:HB3	1:M:1297:GLU:HG3	1.72	0.71
7:S:153:GLN:HG2	7:S:154:VAL:HG23	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:470:LEU:HD23	1:M:470:LEU:H	1.55	0.71
2:N:289:LEU:HD13	2:N:375:ALA:CB	2.20	0.71
10:J:48:ARG:HH11	10:J:48:ARG:HG2	1.54	0.71
8:T:24:CYS:HB2	8:T:44:VAL:HG21	1.72	0.71
2:N:56:ASP:HB3	2:N:57:TYR:HD1	1.55	0.71
3:O:166:GLU:HG3	11:W:10:PHE:HZ	1.55	0.71
2:B:542:MET:HG2	2:B:747:MET:HE3	1.72	0.71
2:B:999:MET:HG3	2:B:1000:PRO:HD2	1.72	0.71
3:O:165:LYS:O	11:W:6:ARG:NH1	2.22	0.71
1:A:1121:GLU:CG	1:A:1122:PRO:HD2	2.20	0.71
1:A:68:GLN:O	1:A:68:GLN:OE1	2.09	0.71
1:M:905:ASP:C	1:M:906:HIS:HD1	1.94	0.71
1:M:1116:LEU:H	1:M:1308:THR:HG22	1.55	0.71
1:A:517:ASN:HD22	1:A:1364:ASN:HD22	1.37	0.71
5:Q:50:MET:HG2	5:Q:52:ARG:HH21	1.55	0.71
1:A:1223:ASP:HA	1:A:1243:VAL:HG22	1.72	0.71
2:B:56:ASP:HB3	2:B:57:TYR:CD1	2.25	0.71
1:A:37:PHE:N	1:A:37:PHE:CD1	2.56	0.71
1:M:239:LEU:HD12	1:M:240:PRO:HD2	1.71	0.71
2:N:953:LEU:HD21	2:N:965:LYS:HB2	1.71	0.71
8:H:130:ARG:N	8:H:130:ARG:HD3	2.06	0.71
4:D:138:ASN:HD21	7:G:35:GLU:HB3	1.55	0.71
6:F:77:ASP:O	6:F:78:GLN:HB2	1.90	0.71
2:B:427:ASP:HA	2:B:430:ARG:HD2	1.73	0.71
5:Q:23:VAL:O	5:Q:28:TYR:HB2	1.90	0.71
2:N:515:HIS:HD2	2:N:517:THR:H	1.37	0.71
12:L:32:ALA:HB2	12:L:55:ILE:HG13	1.72	0.71
1:A:709:THR:HG22	1:A:710:LEU:N	2.04	0.71
1:M:709:THR:HG22	1:M:710:LEU:N	2.05	0.71
1:M:115:LEU:HD12	1:M:142:CYS:HB3	1.71	0.71
2:N:295:GLY:N	2:N:298:LEU:HD23	2.06	0.71
1:A:316:GLN:HG2	1:A:317:LYS:HG2	1.71	0.71
4:D:8:PHE:CE1	4:D:37:GLN:HB2	2.26	0.71
4:P:138:ASN:C	4:P:142:LYS:HE2	2.11	0.71
2:N:705:MET:N	2:N:710:LEU:HD12	2.06	0.71
1:M:1189:SER:O	1:M:1241:ARG:HD3	1.91	0.71
1:A:37:PHE:HD1	1:A:37:PHE:N	1.89	0.71
2:B:1016:ALA:O	2:B:1020:ARG:HG3	1.91	0.71
9:U:34:TYR:CD2	9:U:35:VAL:N	2.59	0.71
12:L:47:ARG:HB2	12:L:47:ARG:HH11	1.56	0.71
12:L:47:ARG:HG3	12:L:52:GLY:O	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:778:MET:CE	2:B:1094:ARG:HD3	2.21	0.71
7:G:13:LEU:HD22	7:G:17:PHE:HB2	1.70	0.71
2:B:60:GLN:O	2:B:63:ILE:HG22	1.89	0.71
1:M:722:LEU:HD12	1:M:722:LEU:H	1.55	0.71
1:M:767:GLN:NE2	1:M:774:ARG:HB3	2.05	0.71
2:N:515:HIS:CD2	2:N:517:THR:HG23	2.26	0.71
1:M:390:GLN:HE21	1:M:394:ASN:HD22	1.39	0.71
2:N:467:GLY:N	2:N:475:SER:HB3	2.06	0.71
1:A:1155:ASP:OD2	1:A:1161:THR:HG23	1.90	0.71
9:I:93:LYS:HD3	9:I:93:LYS:N	2.04	0.71
2:N:620:ARG:NH1	9:U:68:LEU:HD21	2.05	0.71
2:N:25:ILE:HG21	2:N:658:ILE:HD12	1.73	0.71
1:M:1011:GLN:HE22	1:M:1015:VAL:HG21	1.56	0.71
5:Q:16:PHE:CZ	5:Q:20:LYS:HE2	2.26	0.71
1:A:253:ASN:ND2	2:B:884:ARG:HD2	2.05	0.70
2:B:917:PRO:O	2:B:918:ILE:HG13	1.90	0.70
7:S:99:PHE:O	7:S:110:VAL:HG23	1.90	0.70
2:N:217:ARG:NE	2:N:405:ARG:HB2	2.06	0.70
2:B:226:PHE:HA	2:B:395:GLN:CG	2.20	0.70
1:M:157:ASP:OD2	1:M:160:GLN:HG3	1.91	0.70
1:A:1207:LEU:HD13	1:A:1273:LEU:HD23	1.73	0.70
2:B:898:LEU:HD13	2:B:952:VAL:HG11	1.72	0.70
1:M:1121:GLU:CG	1:M:1122:PRO:HD2	2.20	0.70
2:B:384:ARG:HH12	2:B:393:LYS:HD3	1.55	0.70
1:A:281:HIS:C	1:A:282:ASN:HD22	1.94	0.70
1:A:71:GLN:O	1:A:73:GLY:N	2.23	0.70
1:A:225:ASN:HD22	1:A:228:PHE:H	1.37	0.70
1:M:1118:VAL:HG23	1:M:1306:LEU:HB2	1.72	0.70
2:N:756:ILE:O	2:N:759:PRO:HD3	1.91	0.70
4:P:8:PHE:HE1	4:P:37:GLN:HB2	1.55	0.70
1:A:523:ILE:CG1	1:A:622:VAL:HG22	2.21	0.70
2:N:873:THR:O	2:N:914:LYS:HA	1.91	0.70
2:B:873:THR:O	2:B:914:LYS:HA	1.91	0.70
3:C:147:LEU:N	3:C:147:LEU:HD23	2.07	0.70
1:M:254:GLU:HB2	2:N:935:ARG:NH2	2.06	0.70
1:M:1293:SER:OG	1:M:1294:PRO:HD2	1.91	0.70
2:N:38:PHE:HD1	2:N:811:TYR:CD2	2.09	0.70
1:M:916:GLY:O	1:M:919:ILE:HG22	1.91	0.70
8:H:81:PRO:CB	8:H:82:PRO:HD2	2.21	0.70
1:A:541:ILE:HG22	1:A:546:VAL:HG23	1.73	0.70
2:N:604:ARG:HB2	2:N:609:ILE:HG13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:309:GLN:HG3	9:I:52:ILE:CD1	2.21	0.70
1:M:216:VAL:O	1:M:219:PHE:HB2	1.91	0.70
2:B:1004:GLU:HG3	10:J:42:LYS:NZ	2.05	0.70
10:V:44:TYR:HA	10:V:47:ARG:HB2	1.74	0.70
4:P:29:LEU:HD12	7:S:82:PHE:CZ	2.26	0.70
1:A:842:VAL:HG11	2:B:1136:ASP:OD2	1.91	0.70
11:W:60:ALA:O	11:W:73:LEU:HD12	1.90	0.70
10:V:53:HIS:CD2	10:V:54:VAL:N	2.59	0.70
3:C:101:LEU:HD13	3:C:118:LEU:CD2	2.20	0.70
1:M:541:ILE:HG22	1:M:546:VAL:HG23	1.73	0.70
7:G:126:ASN:HD22	7:G:127:PRO:CA	2.05	0.70
2:N:288:ALA:HB1	2:N:331:LEU:HD12	1.71	0.70
2:B:168:GLY:HA2	2:B:454:THR:OG1	1.91	0.70
2:N:240:ILE:CG2	2:N:254:LEU:HB3	2.22	0.70
2:B:642:ASP:O	2:B:644:GLU:N	2.21	0.70
2:N:778:MET:CE	2:N:1094:ARG:HD3	2.21	0.70
1:A:249:SER:O	1:A:250:ILE:HG13	1.90	0.70
1:A:1121:GLU:HG2	1:A:1122:PRO:HD2	1.74	0.70
1:A:1127:ASP:HB3	1:A:1130:GLN:HB3	1.71	0.70
6:R:130:ILE:HB	6:R:148:VAL:HG21	1.72	0.70
1:A:1353:TYR:HD2	1:A:1353:TYR:C	1.94	0.70
5:E:10:SER:O	5:E:13:TRP:HB3	1.92	0.70
1:A:626:ASN:O	1:A:631:HIS:HD2	1.74	0.70
8:H:17:PRO:HB3	8:H:24:CYS:SG	2.31	0.70
4:D:130:LEU:HD13	4:D:142:LYS:HG2	1.72	0.70
4:P:151:PHE:CD1	4:P:151:PHE:N	2.58	0.70
1:M:567:LYS:CB	8:T:95:TYR:HA	2.20	0.70
5:Q:180:ARG:NH2	5:Q:192:ARG:HB2	2.05	0.70
1:A:908:LEU:HD11	1:A:983:ILE:HD11	1.74	0.70
4:P:70:PHE:O	4:P:74:GLN:HG3	1.91	0.70
1:A:388:LEU:O	1:A:392:VAL:HG23	1.92	0.70
2:N:600:LEU:O	2:N:609:ILE:HD11	1.90	0.70
4:P:120:GLU:O	4:P:124:GLU:OE2	2.09	0.70
1:A:868:TYR:HD2	1:A:1058:VAL:HG21	1.57	0.70
1:M:1409:LEU:HD13	2:N:1207:LEU:HD11	1.73	0.70
2:N:846:ILE:HG23	2:N:974:PRO:HG2	1.72	0.70
1:M:122:MET:HA	1:M:141:LEU:CD1	2.22	0.70
1:M:40:THR:HG22	1:M:41:MET:HG3	1.72	0.70
2:N:642:ASP:CA	2:N:649:LYS:HG3	2.22	0.70
10:J:53:HIS:CD2	10:J:54:VAL:N	2.60	0.70
2:B:705:MET:H	2:B:710:LEU:CD1	2.04	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:247:GLY:H	2:B:249:ARG:HH21	1.37	0.70
7:S:138:THR:HG22	7:S:139:ILE:N	2.06	0.70
2:N:129:PHE:CE2	2:N:166:PHE:HB2	2.27	0.70
8:H:8:ASP:OD2	8:H:9:ILE:N	2.24	0.70
1:A:595:THR:O	1:A:596:THR:HG23	1.92	0.70
4:P:134:THR:HG23	4:P:141:LEU:HD23	1.74	0.70
1:M:1006:ILE:CD1	5:Q:163:GLU:HG3	2.21	0.70
1:M:768:GLN:CG	1:M:816:HIS:HA	2.22	0.70
1:A:1293:SER:OG	1:A:1294:PRO:HD2	1.90	0.70
5:Q:202:SER:OG	5:Q:204:THR:HG22	1.92	0.70
2:N:705:MET:H	2:N:710:LEU:CD1	2.04	0.70
2:B:245:GLU:O	2:B:246:LYS:HG3	1.91	0.70
1:M:372:LYS:HA	1:M:435:HIS:ND1	2.07	0.70
11:K:65:HIS:HD2	11:K:67:PHE:H	1.38	0.70
5:Q:48:ASP:CG	5:Q:49:SER:H	1.93	0.70
5:E:147:HIS:HD2	5:E:149:LEU:H	1.39	0.70
2:N:345:LYS:CG	2:N:346:GLU:H	2.05	0.70
2:B:559:SER:CA	2:B:563:MET:HB3	2.19	0.69
10:J:64:ASN:HB3	10:J:65:PRO:HD2	1.74	0.69
7:G:139:ILE:HG23	7:G:140:LYS:N	2.07	0.69
1:A:14:VAL:H	1:A:1432:GLN:NE2	1.88	0.69
1:A:794:PRO:HG2	1:A:795:GLU:OE2	1.91	0.69
1:M:722:LEU:HD21	1:M:794:PRO:HB3	1.72	0.69
1:M:672:ASP:HB3	1:M:736:ASN:ND2	2.07	0.69
1:A:852:TYR:CE2	1:A:1060:PRO:HB2	2.27	0.69
1:A:1353:TYR:CD2	1:A:1353:TYR:C	2.65	0.69
1:A:946:VAL:HG22	5:E:201:LYS:HD2	1.73	0.69
4:D:35:LEU:H	4:D:35:LEU:HD12	1.56	0.69
1:M:351:THR:HG22	2:N:1103:ILE:CA	2.20	0.69
1:A:903:ASN:HD22	1:A:903:ASN:C	1.91	0.69
11:W:101:LEU:O	11:W:101:LEU:HD23	1.92	0.69
11:W:57:LEU:HB2	11:W:76:GLN:HG2	1.73	0.69
1:A:225:ASN:ND2	1:A:227:VAL:H	1.90	0.69
1:A:1210:GLY:O	1:A:1214:GLU:HG2	1.92	0.69
3:O:33:LEU:O	3:O:37:MET:HG3	1.92	0.69
9:U:4:PHE:HE1	9:U:13:MET:HG3	1.58	0.69
2:B:114:PRO:HG2	2:B:115:GLN:H	1.57	0.69
1:A:288:ALA:HA	1:A:291:GLU:OE1	1.91	0.69
7:S:94:CYS:SG	7:S:128:PRO:HB2	2.32	0.69
1:M:399:HIS:O	1:M:401:GLY:N	2.25	0.69
5:Q:94:LYS:O	5:Q:98:ILE:HG13	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:535:THR:CG2	1:A:616:VAL:HA	2.23	0.69
5:Q:124:VAL:CG1	5:Q:132:ILE:HB	2.16	0.69
2:B:542:MET:HG2	2:B:747:MET:CE	2.22	0.69
8:T:84:ALA:HB1	8:T:87:ARG:HB2	1.74	0.69
2:B:957:ASN:ND2	2:B:961:LEU:HB2	2.03	0.69
1:A:960:ILE:O	1:A:963:ILE:HG22	1.92	0.69
3:O:39:ALA:HA	3:O:164:ALA:HB3	1.74	0.69
1:A:425:GLN:N	1:A:425:GLN:OE1	2.25	0.69
1:A:866:PHE:C	1:A:867:ILE:HD12	2.12	0.69
3:O:66:ARG:NH2	10:V:3:VAL:O	2.25	0.69
2:B:217:ARG:NE	2:B:405:ARG:HB2	2.08	0.69
2:B:165:VAL:HG11	2:B:448:ILE:HD13	1.73	0.69
11:W:46:ILE:O	11:W:50:LEU:HB2	1.92	0.69
2:N:996:ARG:HH12	3:O:174:ALA:HA	1.58	0.69
3:C:165:LYS:O	11:K:6:ARG:NH1	2.25	0.69
4:P:160:VAL:O	4:P:164:ILE:HG13	1.92	0.69
1:M:42:ASP:O	1:M:44:THR:N	2.26	0.69
3:C:66:ARG:NH2	10:J:3:VAL:O	2.26	0.69
6:R:89:GLU:O	6:R:93:ILE:HD12	1.92	0.69
2:B:96:TYR:HB2	2:B:129:PHE:HB2	1.73	0.69
2:N:357:GLN:O	2:N:366:GLN:HA	1.91	0.69
2:N:737:THR:CG2	9:U:66:PRO:HA	2.22	0.69
1:M:537:ARG:HD2	8:T:20:TYR:HE1	1.56	0.69
1:M:1011:GLN:HE22	1:M:1015:VAL:CG2	2.06	0.69
1:M:115:LEU:CD1	1:M:142:CYS:HB3	2.22	0.69
10:J:1:MET:H1	10:J:57:ILE:H	1.41	0.69
1:M:822:GLU:HG3	2:N:513:GLN:HE21	1.57	0.69
7:S:90:THR:HG22	7:S:91:VAL:O	1.92	0.69
7:S:121:PHE:CE2	7:S:123:ALA:HB2	2.28	0.69
9:I:50:THR:HG22	9:I:52:ILE:H	1.58	0.69
7:G:14:HIS:CD2	7:G:16:SER:H	2.10	0.69
2:B:1084:GLN:HG2	3:C:201:TRP:CZ2	2.27	0.69
1:M:698:GLN:HA	9:U:97:MET:O	1.92	0.69
9:I:111:THR:HG23	9:I:112:SER:H	1.57	0.69
4:P:59:ILE:HG21	4:P:145:MET:SD	2.33	0.69
2:N:710:LEU:CA	2:N:733:HIS:HB3	2.17	0.69
2:N:642:ASP:O	2:N:644:GLU:N	2.23	0.69
8:T:81:PRO:CB	8:T:82:PRO:HD2	2.22	0.69
7:G:125:SER:OG	7:G:128:PRO:HA	1.93	0.69
2:B:824:ILE:HG12	10:J:48:ARG:NH1	2.08	0.69
2:B:241:ARG:HG2	2:B:253:THR:CG2	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1223:ASP:HA	1:M:1243:VAL:CG2	2.22	0.69
1:M:122:MET:HA	1:M:141:LEU:HD11	1.74	0.69
1:A:828:ALA:HB1	2:B:530:GLY:HA2	1.73	0.69
11:W:113:THR:O	11:W:114:LEU:HB2	1.93	0.69
1:M:55:ASP:C	1:M:57:ARG:H	1.94	0.69
12:L:32:ALA:HB3	12:L:55:ILE:HG13	1.74	0.69
7:S:95:SER:O	7:S:130:TYR:OH	2.07	0.69
2:N:36:ALA:HA	2:N:39:ARG:HD2	1.74	0.69
2:N:834:ASN:HB3	2:N:840:ILE:HG13	1.73	0.69
2:B:616:ILE:HD12	2:B:616:ILE:N	2.07	0.69
2:B:582:VAL:HG23	2:B:626:ILE:HB	1.73	0.69
1:A:1112:LYS:O	1:A:1114:PRO:HD3	1.92	0.69
9:U:26:LEU:CD2	9:U:37:GLU:HA	2.19	0.69
1:M:381:THR:HG23	1:M:382:PRO:HD2	1.75	0.69
3:C:45:ALA:HA	3:C:72:LEU:HD12	1.74	0.69
12:X:47:ARG:NH1	12:X:47:ARG:HB2	2.07	0.68
2:N:559:SER:CA	2:N:563:MET:HB3	2.20	0.68
2:B:707:PRO:HG2	2:B:708:GLU:H	1.57	0.68
2:B:1181:GLU:HA	2:B:1187:ASN:O	1.92	0.68
9:U:55:THR:HG23	9:U:100:PHE:HD2	1.57	0.68
1:A:1433:MET:HE3	7:G:63:PRO:HB2	1.74	0.68
2:B:705:MET:N	2:B:710:LEU:HD12	2.09	0.68
1:A:709:THR:HG22	1:A:710:LEU:H	1.58	0.68
2:B:357:GLN:O	2:B:366:GLN:HA	1.92	0.68
7:S:112:LYS:HB3	7:S:113:HIS:CE1	2.28	0.68
2:B:168:GLY:N	2:B:450:ALA:HB1	2.08	0.68
3:C:51:VAL:HG22	3:C:155:LEU:HD22	1.73	0.68
2:B:653:VAL:HG23	2:B:689:LEU:HB3	1.76	0.68
1:A:1148:ILE:HD11	1:A:1198:ASP:HA	1.75	0.68
2:N:1113:VAL:CG2	15:6:1:C:H4'	2.23	0.68
1:A:1438:THR:HB	2:B:1144:ALA:HB3	1.75	0.68
11:W:108:GLU:O	11:W:112:GLN:HG2	1.93	0.68
12:L:26:THR:CG2	12:L:27:LEU:H	2.02	0.68
2:B:291:ILE:HD13	2:B:300:HIS:CD2	2.29	0.68
2:N:744:HIS:HD2	2:N:745:PRO:HD2	1.55	0.68
2:B:254:LEU:HD23	2:B:381:MET:HE1	1.75	0.68
1:A:185:TRP:H	1:A:185:TRP:HE3	1.41	0.68
1:A:1094:VAL:HG13	1:A:1113:THR:HG21	1.74	0.68
8:H:130:ARG:HB2	8:H:130:ARG:NH1	2.08	0.68
1:A:1207:LEU:CD1	1:A:1273:LEU:HD23	2.24	0.68
2:B:378:LEU:O	2:B:382:ILE:HG13	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:63:VAL:O	11:K:63:VAL:HG23	1.94	0.68
1:M:1195:LEU:HD11	1:M:1267:MET:CE	2.23	0.68
2:B:955:THR:OG1	12:L:55:ILE:HA	1.93	0.68
10:J:64:ASN:HB3	10:J:65:PRO:HD3	1.74	0.68
1:M:1036:ARG:HG2	1:M:1036:ARG:NH1	2.05	0.68
7:S:128:PRO:O	7:S:138:THR:HG23	1.94	0.68
2:N:244:LEU:HD11	2:N:366:GLN:NE2	2.08	0.68
2:B:1183:LYS:HE3	2:B:1183:LYS:N	2.08	0.68
8:T:12:VAL:HA	8:T:28:ALA:HB2	1.74	0.68
1:A:524:VAL:HG12	1:A:525:GLN:N	2.06	0.68
1:M:875:ALA:HB2	1:M:1366:ARG:HD2	1.76	0.68
1:A:503:GLN:HE21	6:F:90:ARG:NH2	1.87	0.68
2:N:708:GLU:O	2:N:710:LEU:N	2.27	0.68
3:C:56:THR:HG21	3:C:145:CYS:SG	2.33	0.68
2:N:69:LEU:HB3	2:N:429:PHE:CE1	2.28	0.68
1:M:913:LEU:HD12	1:M:914:GLU:N	2.09	0.68
1:A:1325:THR:O	5:E:148:GLU:HB2	1.94	0.68
1:M:150:THR:HG23	1:M:166:GLY:HA2	1.76	0.68
3:O:3:GLU:HB3	11:W:104:ASN:OD1	1.93	0.68
8:H:61:SER:HB3	8:H:139:ASN:HB3	1.74	0.68
3:O:93:ASP:OD1	3:O:122:SER:HB2	1.92	0.68
1:A:350:ARG:HB2	2:B:1128:LEU:HD11	1.74	0.68
4:P:153:ARG:O	4:P:154:PHE:HD2	1.76	0.68
4:P:59:ILE:HG22	4:P:60:LYS:N	2.07	0.68
10:J:64:ASN:HD22	10:J:65:PRO:HD3	1.58	0.68
3:C:69:LEU:HB3	10:J:6:ARG:HD3	1.76	0.68
7:S:111:THR:HG22	7:S:114:LEU:HB2	1.75	0.68
2:N:309:GLN:OE1	9:U:52:ILE:HD11	1.92	0.68
1:M:1325:THR:O	5:Q:148:GLU:HB2	1.94	0.68
3:O:16:ASP:C	3:O:240:VAL:HG11	2.14	0.68
1:A:830:LYS:O	1:A:834:THR:HB	1.94	0.68
8:H:12:VAL:HA	8:H:28:ALA:HB2	1.75	0.68
1:A:66:LYS:HD3	1:A:67:CYS:H	1.59	0.68
4:P:138:ASN:HB3	4:P:141:LEU:HB3	1.75	0.68
1:M:1420:ASP:CB	1:M:1422:ARG:HG3	2.19	0.68
1:A:413:ILE:HG21	1:A:424:ILE:HD11	1.76	0.68
2:N:836:GLU:O	2:N:837:ASP:HB2	1.93	0.68
4:D:14:ARG:HB3	4:D:14:ARG:HH11	1.58	0.68
9:I:8:ARG:HG3	9:I:34:TYR:CE1	2.28	0.68
5:Q:147:HIS:HB3	5:Q:150:VAL:HG23	1.76	0.68
1:A:337:ARG:HD3	2:B:1132:GLU:OE1	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:99:GLY:HA3	8:T:118:PHE:HD2	1.58	0.68
4:P:4:SER:O	4:P:5:THR:HB	1.94	0.68
1:A:55:ASP:C	1:A:57:ARG:H	1.95	0.68
1:A:49:LYS:NZ	1:A:60:SER:HA	2.09	0.68
5:E:50:MET:HG2	5:E:52:ARG:HH21	1.59	0.68
2:N:226:PHE:HA	2:N:395:GLN:CG	2.24	0.68
9:U:76:PRO:HD2	9:U:108:HIS:CD2	2.28	0.68
14:2:5:DC:H2"	14:2:6:DT:C7	2.24	0.68
6:F:116:ASP:HB3	6:F:119:ARG:HB2	1.76	0.68
10:J:16:ASP:OD1	10:J:17:LYS:HD2	1.93	0.68
4:P:35:LEU:N	4:P:35:LEU:HD12	2.09	0.68
2:N:597:MET:CE	2:N:597:MET:HA	2.24	0.68
3:C:39:ALA:HA	3:C:164:ALA:HB3	1.75	0.68
1:A:567:LYS:CB	8:H:96:VAL:H	1.98	0.68
2:N:857:ARG:HD2	2:N:945:GLU:OE1	1.92	0.68
2:N:100:PRO:HG3	2:N:172:ILE:HD12	1.75	0.68
1:M:89:PRO:C	1:M:204:THR:HG21	2.13	0.68
4:D:18:VAL:O	4:D:19:GLU:HB2	1.94	0.68
7:G:1:MET:SD	7:G:79:PHE:CD1	2.87	0.68
2:N:807:ARG:HG2	2:N:1045:SER:OG	1.94	0.67
2:B:1065:GLN:NE2	2:B:1067:ARG:H	1.86	0.67
4:P:71:LYS:HA	4:P:74:GLN:HB2	1.75	0.67
2:N:897:GLY:O	2:N:898:LEU:HD23	1.93	0.67
2:B:345:LYS:HA	2:B:348:ARG:HE	1.59	0.67
4:D:29:LEU:H	4:D:29:LEU:HD22	1.57	0.67
5:E:144:ILE:HG13	5:E:145:THR:N	2.09	0.67
1:A:42:ASP:O	1:A:44:THR:N	2.27	0.67
2:N:579:ARG:HG2	2:N:579:ARG:HH11	1.59	0.67
1:M:382:PRO:CA	1:M:428:TYR:HE2	2.07	0.67
4:D:71:LYS:HG2	4:D:74:GLN:HG3	1.75	0.67
1:M:852:TYR:CD2	1:M:1060:PRO:HB2	2.29	0.67
12:X:53:HIS:HB3	12:X:55:ILE:CD1	2.23	0.67
4:P:144:THR:O	4:P:148:LEU:HB2	1.94	0.67
1:M:868:TYR:CD2	1:M:1058:VAL:HG21	2.30	0.67
3:C:123:ASN:HD22	3:C:125:MET:HG2	1.56	0.67
2:B:243:ALA:HA	2:B:250:PHE:O	1.93	0.67
4:D:146:GLN:HA	4:D:149:THR:HG22	1.76	0.67
2:N:657:HIS:CE1	2:N:689:LEU:HD11	2.30	0.67
3:C:186:LEU:HD21	3:C:225:ALA:HB2	1.76	0.67
1:M:866:PHE:C	1:M:867:ILE:HD12	2.15	0.67
1:M:433:GLU:OE1	2:N:1108:ARG:NH2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:20:ASP:O	2:N:22:SER:N	2.23	0.67
2:N:622:LYS:HE2	9:U:59:VAL:CG2	2.19	0.67
2:B:589:VAL:HG12	2:B:590:HIS:N	2.09	0.67
1:M:901:LEU:H	1:M:926:GLN:NE2	1.93	0.67
2:N:309:GLN:HG3	9:U:52:ILE:CD1	2.24	0.67
1:M:897:TYR:HB3	1:M:936:LEU:HD12	1.77	0.67
2:N:291:ILE:HD13	2:N:300:HIS:CD2	2.29	0.67
4:D:54:GLU:O	4:D:58:VAL:HG23	1.95	0.67
1:A:244:PRO:HB2	1:A:245:PRO:HD3	1.76	0.67
3:O:186:LEU:HD21	3:O:225:ALA:HB2	1.77	0.67
1:M:903:ASN:ND2	1:M:904:THR:N	2.39	0.67
2:B:373:ARG:HA	2:B:566:LEU:HD23	1.76	0.67
2:N:168:GLY:N	2:N:450:ALA:HB1	2.10	0.67
1:A:768:GLN:CG	1:A:816:HIS:HA	2.22	0.67
2:N:254:LEU:HD12	2:N:272:THR:O	1.94	0.67
2:N:345:LYS:N	2:N:347:LYS:HE2	2.10	0.67
2:B:23:ALA:HB1	2:B:24:PRO:HD2	1.77	0.67
2:B:868:MET:O	2:B:870:ILE:HG13	1.95	0.67
3:O:124:LEU:O	3:O:127:ARG:HG2	1.94	0.67
8:H:15:VAL:HG22	8:H:26:ILE:HD11	1.75	0.67
9:I:111:THR:HG21	9:I:113:ASP:HB2	1.75	0.67
4:P:156:ASP:HB2	4:P:159:THR:CG2	2.24	0.67
2:B:580:VAL:HG22	2:B:624:LEU:HB3	1.75	0.67
2:N:562:GLY:HA3	2:N:590:HIS:CE1	2.30	0.67
4:P:18:VAL:O	4:P:19:GLU:HB2	1.95	0.67
2:B:363:HIS:O	2:B:364:ILE:HB	1.95	0.67
2:N:165:VAL:HG11	2:N:448:ILE:HD13	1.76	0.67
1:A:767:GLN:NE2	1:A:774:ARG:HB3	2.10	0.67
5:E:177:ARG:HD3	5:E:215:MET:SD	2.34	0.67
1:A:265:LYS:HE3	1:A:265:LYS:HA	1.74	0.67
1:M:1141:THR:CG2	1:M:1205:LYS:HD3	2.25	0.67
9:U:40:SER:OG	9:U:41:PRO:HD2	1.94	0.67
5:Q:4:GLU:HB3	5:Q:7:ARG:HE	1.59	0.67
1:M:34:LYS:NZ	1:M:57:ARG:NH2	2.43	0.67
5:E:98:ILE:HG22	5:E:102:GLU:HG3	1.76	0.67
7:S:116:PRO:HG2	7:S:119:LEU:HB2	1.77	0.67
5:Q:94:LYS:HE2	5:Q:98:ILE:CD1	2.25	0.67
14:5:5:DC:H2"	14:5:6:DT:C7	2.25	0.67
4:P:8:PHE:CE1	4:P:37:GLN:HB2	2.29	0.67
1:M:852:TYR:CE2	1:M:1060:PRO:HB2	2.30	0.67
1:M:492:PRO:CB	1:M:497:THR:HG22	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:512:VAL:HA	1:A:519:PRO:HA	1.75	0.67
2:N:724:ASP:OD2	2:N:727:LYS:HG3	1.95	0.67
1:M:595:THR:O	1:M:596:THR:HG23	1.95	0.67
12:X:38:LEU:CD1	12:X:49:LYS:HE2	2.25	0.67
2:B:1224:PHE:CZ	5:E:171:LYS:HG3	2.29	0.67
1:A:635:ARG:HH11	1:A:635:ARG:HA	1.60	0.67
2:N:1124:ARG:NH1	15:6:2:G:OP2	2.28	0.67
2:B:1202:LEU:O	2:B:1206:GLU:HG3	1.95	0.67
8:H:58:THR:HB	8:H:143:LEU:HD13	1.76	0.67
10:J:1:MET:N	10:J:56:LEU:N	2.43	0.67
2:N:589:VAL:HG12	2:N:590:HIS:N	2.10	0.67
2:N:34:ILE:HG12	2:N:542:MET:HE1	1.76	0.67
2:B:240:ILE:CG2	2:B:254:LEU:HB3	2.25	0.67
6:F:89:GLU:HG2	6:F:134:ILE:HD13	1.77	0.67
7:S:34:VAL:HG12	7:S:45:ILE:HG21	1.76	0.67
7:S:45:ILE:HA	7:S:78:VAL:HG12	1.77	0.67
4:P:48:ILE:HG22	4:P:48:ILE:O	1.94	0.67
1:M:185:TRP:HE3	1:M:185:TRP:H	1.42	0.67
2:N:593:PRO:HG2	2:N:617:ARG:NH1	2.10	0.67
9:U:44:TYR:CD1	9:U:45:ARG:N	2.62	0.67
11:W:63:VAL:HG23	11:W:63:VAL:O	1.95	0.67
1:M:1144:LYS:HB2	1:M:1268:LEU:O	1.94	0.67
5:Q:157:SER:OG	5:Q:160:GLU:HG3	1.95	0.67
4:D:4:SER:O	4:D:5:THR:HB	1.95	0.67
2:B:1017:ILE:HB	2:B:1018:PRO:HD3	1.75	0.67
1:M:284:ALA:O	1:M:286:HIS:N	2.27	0.67
2:B:899:ILE:HG21	2:B:949:VAL:HG21	1.77	0.67
1:A:1004:ASN:ND2	5:E:167:ARG:HD2	2.10	0.67
5:Q:100:ILE:HG23	5:Q:105:PHE:HB2	1.77	0.67
12:X:47:ARG:HG2	12:X:48:CYS:H	1.59	0.67
1:A:34:LYS:HZ2	1:A:57:ARG:NH2	1.93	0.67
2:B:806:THR:HG22	2:B:808:ALA:N	2.06	0.67
1:M:407:ARG:HG2	1:M:430:TRP:CZ2	2.29	0.67
2:B:261:ARG:NH1	2:B:261:ARG:HB3	2.09	0.67
1:M:164:ARG:HG3	1:M:165:GLY:N	2.09	0.67
10:J:16:ASP:OD1	10:J:17:LYS:N	2.28	0.67
1:M:492:PRO:HB2	1:M:497:THR:HG22	1.76	0.67
1:M:688:LYS:HG3	1:M:691:LEU:HD23	1.76	0.67
1:A:1147:THR:HB	9:I:48:LEU:HD12	1.77	0.67
1:M:66:LYS:HZ2	1:M:68:GLN:H	1.42	0.66
7:G:126:ASN:HD22	7:G:127:PRO:HA	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:515:HIS:CD2	2:N:517:THR:H	2.12	0.66
1:A:675:THR:O	1:A:679:ILE:HG13	1.95	0.66
1:A:567:LYS:CD	1:A:568:PRO:HD2	2.24	0.66
2:B:708:GLU:O	2:B:710:LEU:N	2.28	0.66
2:B:562:GLY:HA3	2:B:590:HIS:CE1	2.30	0.66
2:B:879:ARG:NE	2:B:879:ARG:H	1.93	0.66
2:N:868:MET:O	2:N:870:ILE:HG13	1.95	0.66
1:A:1255:GLU:HG3	1:A:1258:HIS:CD2	2.30	0.66
6:R:96:THR:O	6:R:100:GLN:HG3	1.95	0.66
12:L:40:LEU:HD13	12:L:44:ASP:CB	2.21	0.66
2:B:955:THR:CG2	2:B:956:THR:N	2.57	0.66
2:B:805:THR:HG22	2:B:806:THR:N	2.10	0.66
2:N:806:THR:N	2:N:809:MET:HE3	2.10	0.66
1:M:535:THR:HG21	1:M:617:VAL:H	1.60	0.66
1:M:870:GLU:HG2	5:Q:208:TYR:CG	2.30	0.66
7:G:1:MET:HE1	7:G:79:PHE:HA	1.76	0.66
1:A:698:GLN:HA	9:I:97:MET:O	1.95	0.66
1:A:122:MET:HA	1:A:141:LEU:CD1	2.25	0.66
1:A:977:LYS:HB3	1:A:978:PRO:HD2	1.77	0.66
3:O:69:LEU:HB3	10:V:6:ARG:HD3	1.78	0.66
1:M:55:ASP:N	1:M:56:PRO:HD3	2.09	0.66
2:B:604:ARG:HB2	2:B:609:ILE:HG13	1.77	0.66
1:M:828:ALA:HB1	2:N:530:GLY:HA2	1.76	0.66
7:S:111:THR:HG22	7:S:114:LEU:HD13	1.77	0.66
2:B:1096:ARG:O	2:B:1097:HIS:HB2	1.96	0.66
2:N:1037:LEU:HD21	2:N:1064:TYR:HE1	1.61	0.66
9:U:8:ARG:HG3	9:U:34:TYR:HE1	1.60	0.66
1:A:1081:LEU:HD11	1:A:1098:VAL:H	1.60	0.66
7:G:115:MET:HB3	7:G:116:PRO:HD2	1.77	0.66
1:M:1353:TYR:CD2	1:M:1353:TYR:C	2.68	0.66
1:A:1167:GLU:O	1:A:1170:ILE:HD12	1.95	0.66
1:M:463:ILE:HB	1:M:464:PRO:HD2	1.78	0.66
2:N:562:GLY:HA3	2:N:590:HIS:ND1	2.11	0.66
1:A:203:SER:O	1:A:207:ILE:HG12	1.96	0.66
8:T:95:TYR:HE2	8:T:97:MET:CG	2.05	0.66
2:B:553:PRO:O	2:B:557:PHE:HB2	1.95	0.66
1:A:1116:LEU:HB3	1:A:1308:THR:HG21	1.78	0.66
7:G:7:LEU:HB2	7:G:74:TYR:HE2	1.60	0.66
2:B:847:ASP:C	2:B:849:GLY:H	1.98	0.66
2:N:911:ILE:HD11	2:N:941:LEU:CD1	2.24	0.66
9:I:50:THR:CG2	9:I:52:ILE:HG12	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:203:SER:O	1:M:207:ILE:HG12	1.96	0.66
6:F:111:LEU:O	6:F:113:GLY:N	2.23	0.66
14:2:5:DC:H2"	14:2:6:DT:H72	1.78	0.66
2:B:345:LYS:HG2	2:B:346:GLU:H	1.61	0.66
1:A:1130:GLN:O	1:A:1134:ILE:HG13	1.96	0.66
9:I:7:CYS:HB3	9:I:14:LEU:HD21	1.76	0.66
1:A:414:ASP:OD1	1:A:416:ARG:HG2	1.96	0.66
1:A:1076:ALA:HA	1:A:1079:MET:HG3	1.77	0.66
9:U:19:ASP:HB3	9:U:24:ARG:HG2	1.77	0.66
1:M:66:LYS:O	1:M:67:CYS:HB2	1.93	0.66
12:L:38:LEU:CD1	12:L:49:LYS:HE2	2.25	0.66
5:Q:14:ARG:HH21	5:Q:141:VAL:CG1	2.02	0.66
1:A:710:LEU:CD1	1:A:710:LEU:H	2.08	0.66
7:S:111:THR:CG2	7:S:114:LEU:HD13	2.26	0.66
2:B:644:GLU:HB3	2:B:648:HIS:O	1.95	0.66
1:A:828:ALA:CB	2:B:530:GLY:HA2	2.25	0.66
1:A:1258:HIS:O	1:A:1262:LYS:HE3	1.96	0.66
4:D:134:THR:HG22	4:D:135:GLY:N	2.10	0.66
9:U:73:ARG:HH12	9:U:112:SER:HB3	1.59	0.66
8:H:14:GLU:HG2	8:H:15:VAL:N	2.11	0.66
2:B:515:HIS:HD2	2:B:517:THR:OG1	1.78	0.66
1:A:308:ILE:HG22	1:A:309:ALA:N	2.09	0.66
1:A:710:LEU:HD12	1:A:710:LEU:N	2.11	0.66
7:S:52:ASP:C	7:S:53:ASN:HD22	1.98	0.66
11:K:113:THR:O	11:K:114:LEU:HB2	1.96	0.66
1:M:71:GLN:O	1:M:73:GLY:N	2.28	0.66
4:P:118:THR:HB	4:P:121:LYS:CB	2.23	0.66
4:P:124:GLU:O	4:P:128:VAL:HG23	1.96	0.66
1:M:268:ASP:HB3	1:M:299:HIS:CE1	2.31	0.66
4:P:71:LYS:HA	4:P:74:GLN:CG	2.24	0.66
1:M:463:ILE:HD11	1:M:469:ARG:HG3	1.78	0.66
2:B:64:CYS:HA	2:B:67:SER:OG	1.95	0.66
1:M:1004:ASN:ND2	5:Q:167:ARG:HD2	2.10	0.66
9:U:111:THR:CG2	9:U:112:SER:H	2.09	0.66
4:P:139:LYS:HA	4:P:142:LYS:HD2	1.78	0.66
1:A:1342:GLU:CG	5:E:198:ILE:HD13	2.25	0.66
1:A:897:TYR:HB3	1:A:936:LEU:HD12	1.78	0.66
2:N:295:GLY:H	2:N:298:LEU:HD23	1.59	0.66
1:A:626:ASN:O	1:A:631:HIS:CD2	2.49	0.66
7:G:116:PRO:HG2	7:G:119:LEU:HB2	1.77	0.66
1:A:321:PRO:O	1:A:322:VAL:HG12	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:819:ALA:O	2:B:1093:GLN:HG2	1.95	0.66
10:V:1:MET:N	10:V:56:LEU:N	2.44	0.66
12:X:32:ALA:HB3	12:X:55:ILE:HG13	1.77	0.66
2:B:955:THR:HG22	2:B:956:THR:N	2.11	0.66
7:S:13:LEU:HD21	7:S:17:PHE:CB	2.24	0.66
1:A:1036:ARG:HG2	1:A:1036:ARG:NH1	2.10	0.66
4:D:119:ARG:HG3	4:D:221:TYR:CZ	2.30	0.66
9:U:7:CYS:SG	9:U:8:ARG:O	2.54	0.66
2:B:384:ARG:NH1	2:B:393:LYS:HD3	2.11	0.66
1:A:1259:MET:HE3	1:A:1263:ILE:HG13	1.77	0.66
1:M:982:THR:O	1:M:985:ASP:HB2	1.96	0.66
1:A:973:ILE:HD13	1:A:1037:LEU:HA	1.77	0.66
5:Q:197:LYS:HE2	5:Q:199:ILE:CD1	2.21	0.65
12:L:61:THR:CG2	12:L:63:ARG:HG3	2.26	0.65
1:A:1095:THR:HG21	1:A:1112:LYS:HD2	1.77	0.65
10:J:64:ASN:CB	10:J:65:PRO:CD	2.74	0.65
5:E:2:ASP:O	5:E:3:GLN:HG2	1.96	0.65
2:B:418:LYS:HE2	2:B:422:LYS:NZ	2.10	0.65
2:B:287:ARG:NH1	2:B:324:ILE:O	2.28	0.65
1:A:1259:MET:HA	1:A:1262:LYS:HD2	1.78	0.65
4:P:50:LEU:HD13	4:P:55:ALA:HA	1.77	0.65
2:B:560:GLU:O	2:B:561:TRP:CD1	2.50	0.65
2:B:953:LEU:CD2	2:B:965:LYS:HB2	2.26	0.65
1:M:37:PHE:HD1	1:M:37:PHE:N	1.93	0.65
1:M:1241:ARG:O	1:M:1242:VAL:HB	1.95	0.65
1:M:341:MET:HE3	2:N:1135:ARG:NH1	2.12	0.65
2:N:1073:TYR:CE2	2:N:1080:LYS:HG2	2.31	0.65
1:M:512:VAL:HA	1:M:519:PRO:HA	1.76	0.65
2:N:649:LYS:HD3	2:N:736:THR:O	1.96	0.65
1:M:567:LYS:HZ2	8:T:46:LEU:HB2	1.60	0.65
3:C:69:LEU:HD12	3:C:69:LEU:N	2.11	0.65
7:S:139:ILE:HG12	7:S:140:LYS:HG3	1.77	0.65
2:N:167:ILE:HA	2:N:450:ALA:CB	2.26	0.65
1:A:399:HIS:O	1:A:401:GLY:N	2.28	0.65
2:N:243:ALA:HA	2:N:250:PHE:O	1.95	0.65
2:N:361:LEU:HD21	2:N:377:PHE:CD2	2.31	0.65
3:O:238:ILE:HD11	3:O:246:ARG:NH1	2.12	0.65
2:B:831:SER:HB2	2:B:833:TYR:HD1	1.61	0.65
1:M:37:PHE:HD1	1:M:37:PHE:H	1.44	0.65
1:M:1242:VAL:CG1	1:M:1243:VAL:N	2.59	0.65
1:A:1170:ILE:HG22	1:A:1174:PHE:CE1	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:44:ALA:O	5:Q:45:LYS:HB2	1.95	0.65
3:C:16:ASP:C	3:C:240:VAL:HG11	2.16	0.65
8:H:84:ALA:HA	8:H:87:ARG:HB2	1.78	0.65
1:M:14:VAL:H	1:M:1432:GLN:NE2	1.89	0.65
1:A:1120:LEU:HD22	1:A:1125:ALA:HA	1.78	0.65
1:A:1118:VAL:HG23	1:A:1306:LEU:HB2	1.79	0.65
2:N:789:MET:CE	2:N:953:LEU:HD22	2.26	0.65
2:B:842:ASN:HD22	2:B:845:SER:H	1.42	0.65
7:S:15:PRO:HA	7:S:18:PHE:CD1	2.31	0.65
2:N:425:THR:HA	2:N:428:ILE:HD12	1.78	0.65
2:N:69:LEU:HB3	2:N:429:PHE:HE1	1.61	0.65
2:N:364:ILE:O	2:N:365:THR:HB	1.96	0.65
2:N:465:ASN:N	2:N:465:ASN:ND2	2.44	0.65
14:5:5:DC:H2"	14:5:6:DT:H72	1.79	0.65
8:H:139:ASN:O	8:H:140:ALA:HB2	1.96	0.65
8:T:139:ASN:O	8:T:140:ALA:HB2	1.96	0.65
10:V:24:LEU:O	10:V:30:LEU:HB2	1.95	0.65
2:N:805:THR:HG22	2:N:806:THR:N	2.12	0.65
10:J:14:VAL:HG12	10:J:14:VAL:O	1.97	0.65
9:U:50:THR:CG2	9:U:51:ASN:H	2.10	0.65
1:M:265:LYS:N	1:M:265:LYS:HE3	2.12	0.65
2:N:244:LEU:HD21	2:N:366:GLN:NE2	2.11	0.65
7:S:34:VAL:CG1	7:S:45:ILE:HG21	2.26	0.65
4:D:8:PHE:HE1	4:D:37:GLN:HB2	1.61	0.65
10:V:21:TYR:HB2	10:V:39:LEU:HD11	1.77	0.65
3:O:58:LEU:HD23	3:O:58:LEU:N	2.11	0.65
2:N:969:ARG:NH1	3:O:61:GLU:OE1	2.30	0.65
2:B:780:VAL:HG21	10:J:56:LEU:HD11	1.78	0.65
2:B:613:VAL:HG13	2:B:627:PHE:O	1.97	0.65
4:P:12:ARG:NH1	4:P:12:ARG:HG2	2.12	0.65
2:N:292:ILE:HD11	2:N:327:ARG:N	2.12	0.65
2:B:168:GLY:HA2	2:B:454:THR:HG1	1.60	0.65
4:P:155:ARG:NH1	4:P:155:ARG:HB2	2.11	0.65
4:P:119:ARG:HG3	4:P:221:TYR:CZ	2.32	0.65
2:N:707:PRO:HG2	2:N:708:GLU:H	1.62	0.65
5:E:56:LYS:CE	5:E:84:ASP:HB2	2.22	0.65
12:L:34:CYS:HB3	12:L:51:CYS:SG	2.37	0.65
5:E:9:ILE:CD1	5:E:53:PRO:HD3	2.25	0.65
2:N:792:MET:HE2	2:N:857:ARG:NH2	2.11	0.65
6:R:111:LEU:H	6:R:111:LEU:CD1	2.10	0.65
1:M:129:LYS:O	1:M:130:ASP:HB2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:431:TYR:CD1	2:N:447:ALA:HB2	2.32	0.65
9:I:73:ARG:HD2	9:I:101:PHE:CE2	2.32	0.65
1:M:34:LYS:HZ1	1:M:57:ARG:NH2	1.94	0.65
2:B:289:LEU:HD13	2:B:375:ALA:CB	2.23	0.65
1:M:1116:LEU:HB3	1:M:1308:THR:HG21	1.79	0.65
1:M:1236:LEU:C	1:M:1237:ILE:HD12	2.15	0.65
1:M:250:ILE:HG22	1:M:250:ILE:O	1.96	0.65
1:M:1121:GLU:HG2	1:M:1122:PRO:HD2	1.79	0.65
10:J:44:TYR:HD2	10:J:44:TYR:H	1.43	0.65
1:M:134:ARG:HD2	1:M:221:SER:O	1.97	0.65
1:M:335:ARG:HA	1:M:339:ASN:HD22	1.62	0.65
2:B:20:ASP:O	2:B:22:SER:N	2.25	0.65
2:N:770:GLN:HG2	2:N:983:ARG:O	1.96	0.65
8:H:15:VAL:HG22	8:H:26:ILE:CD1	2.26	0.65
2:B:1174:LYS:O	2:B:1176:ASN:N	2.30	0.65
4:P:12:ARG:NH1	4:P:14:ARG:HA	2.11	0.65
5:Q:78:LEU:HD12	5:Q:107:THR:HG21	1.78	0.65
2:N:123:THR:HG21	2:N:458:LYS:HE2	1.78	0.65
2:B:497:ARG:NH2	2:B:775:LYS:NZ	2.45	0.65
1:M:1242:VAL:HG12	1:M:1243:VAL:N	2.11	0.65
1:A:284:ALA:O	1:A:286:HIS:N	2.28	0.65
1:A:231:PRO:HA	1:A:234:MET:HE2	1.78	0.65
1:M:626:ASN:O	1:M:631:HIS:HD2	1.80	0.65
2:B:483:LEU:HD11	2:B:491:THR:HG22	1.78	0.65
2:N:521:LEU:CD2	2:N:633:VAL:HG12	2.19	0.64
7:S:1:MET:HE1	7:S:79:PHE:CA	2.23	0.64
2:B:167:ILE:HA	2:B:450:ALA:CB	2.27	0.64
5:Q:9:ILE:CD1	5:Q:53:PRO:HD3	2.27	0.64
2:N:515:HIS:H	2:N:518:HIS:HD2	1.45	0.64
8:T:139:ASN:O	8:T:140:ALA:CB	2.45	0.64
8:T:123:MET:HE3	8:T:142:LEU:HD22	1.78	0.64
1:M:106:VAL:HG12	1:M:107:CYS:N	2.12	0.64
5:E:117:THR:HG22	5:E:119:SER:N	2.04	0.64
5:Q:98:ILE:O	5:Q:102:GLU:HG3	1.97	0.64
9:U:50:THR:HG21	9:U:52:ILE:HG12	1.78	0.64
2:B:309:GLN:CG	9:I:52:ILE:HD11	2.27	0.64
9:I:52:ILE:HG13	9:I:52:ILE:O	1.98	0.64
3:C:73:GLN:NE2	3:C:75:MET:H	1.94	0.64
2:N:205:ILE:HD12	2:N:205:ILE:N	2.12	0.64
4:D:7:THR:O	4:D:9:GLN:N	2.29	0.64
6:R:147:SER:OG	6:R:150:GLU:HG3	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:84:ALA:CA	8:H:87:ARG:HB2	2.26	0.64
2:N:957:ASN:ND2	2:N:961:LEU:HB2	2.11	0.64
4:P:56:ARG:CA	4:P:148:LEU:HD13	2.24	0.64
4:P:156:ASP:O	4:P:160:VAL:HG23	1.96	0.64
1:A:107:CYS:SG	1:A:148:CYS:HB2	2.36	0.64
2:B:549:THR:HG22	2:B:550:ASP:H	1.60	0.64
2:B:273:LEU:CB	2:B:276:ILE:HD12	2.27	0.64
2:B:1072:MET:HE3	2:B:1085:ILE:HB	1.80	0.64
2:N:309:GLN:CG	9:U:52:ILE:HD11	2.28	0.64
2:N:770:GLN:CD	2:N:983:ARG:HA	2.18	0.64
8:H:32:THR:HG22	8:H:33:GLN:OE1	1.96	0.64
1:M:833:GLU:OE2	1:M:1102:LYS:HE3	1.97	0.64
1:M:1258:HIS:O	1:M:1262:LYS:HE3	1.97	0.64
3:C:69:LEU:HD12	3:C:69:LEU:H	1.62	0.64
1:M:385:ILE:HD11	1:M:426:LEU:HB2	1.80	0.64
1:A:868:TYR:CD2	1:A:1058:VAL:HG21	2.33	0.64
2:B:56:ASP:HB3	2:B:57:TYR:HD1	1.62	0.64
1:M:425:GLN:OE1	1:M:425:GLN:N	2.30	0.64
2:B:465:ASN:N	2:B:465:ASN:ND2	2.43	0.64
1:A:741:ASN:ND2	1:A:744:LYS:H	1.95	0.64
2:B:622:LYS:NZ	9:I:59:VAL:HG13	2.12	0.64
5:E:124:VAL:HB	5:E:125:PRO:HD3	1.79	0.64
10:V:48:ARG:NH1	10:V:48:ARG:HG2	2.09	0.64
2:N:916:THR:O	2:N:935:ARG:HG2	1.97	0.64
1:M:741:ASN:C	1:M:741:ASN:HD22	1.99	0.64
1:M:1112:LYS:O	1:M:1114:PRO:HD3	1.97	0.64
1:M:172:PRO:HB3	1:M:185:TRP:CD2	2.32	0.64
1:A:1208:THR:HG22	1:A:1210:GLY:H	1.61	0.64
3:O:11:ARG:HH12	3:O:205:LYS:NZ	1.95	0.64
11:W:49:GLU:HG3	11:W:94:ILE:HG13	1.80	0.64
1:M:332:LYS:C	1:M:334:GLY:H	2.01	0.64
2:N:515:HIS:H	2:N:518:HIS:CD2	2.16	0.64
1:M:1041:ALA:O	1:M:1045:VAL:HG23	1.97	0.64
1:A:1333:ILE:O	1:A:1337:GLU:HG3	1.97	0.64
1:M:1345:ARG:HG2	1:M:1372:VAL:HG12	1.79	0.64
5:Q:112:TYR:O	5:Q:137:GLU:HG3	1.97	0.64
4:P:162:ALA:HB1	4:P:217:LEU:HD13	1.78	0.64
4:P:163:VAL:O	4:P:167:LEU:HG	1.97	0.64
9:U:61:ASP:C	9:U:63:GLY:H	2.00	0.64
1:M:577:ILE:O	1:M:580:VAL:HG23	1.96	0.64
2:B:272:THR:HG23	2:B:279:ASP:OD1	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:364:ILE:O	2:B:365:THR:HB	1.95	0.64
4:D:52:LEU:O	4:D:54:GLU:N	2.31	0.64
3:O:181:ASP:CG	3:O:186:LEU:HD13	2.18	0.64
2:N:611:PRO:HB3	2:N:685:LEU:HD11	1.80	0.64
7:G:137:ILE:HG23	7:G:143:ILE:HD11	1.79	0.64
1:M:934:LYS:O	1:M:937:VAL:HG12	1.97	0.64
2:N:115:GLN:HG2	2:N:193:LYS:HB2	1.80	0.64
4:P:154:PHE:HD1	4:P:163:VAL:HG21	1.63	0.64
2:B:515:HIS:H	2:B:518:HIS:CD2	2.12	0.64
12:L:53:HIS:HB3	12:L:55:ILE:HD11	1.78	0.64
3:C:238:ILE:HD11	3:C:246:ARG:CZ	2.28	0.64
5:Q:69:ILE:N	5:Q:69:ILE:HD12	2.12	0.64
2:N:582:VAL:CG2	2:N:626:ILE:HB	2.28	0.64
1:A:523:ILE:HG12	1:A:622:VAL:HG22	1.79	0.64
1:A:1144:LYS:HB2	1:A:1268:LEU:O	1.97	0.64
1:M:1353:TYR:HD2	1:M:1353:TYR:C	2.01	0.64
9:U:17:ARG:HH21	9:U:30:ARG:NE	1.96	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:H	1.62	0.64
2:B:225:VAL:HG11	2:B:385:LEU:HA	1.80	0.64
13:4:25:DG:H2"	13:4:26:DT:C7	2.27	0.64
1:A:916:GLY:O	1:A:919:ILE:HG22	1.97	0.64
4:P:158:GLU:N	4:P:158:GLU:CD	2.51	0.64
1:A:351:THR:CG2	2:B:1103:ILE:HA	2.22	0.64
7:S:87:VAL:HG21	7:S:103:VAL:HG11	1.79	0.64
3:O:73:GLN:NE2	3:O:75:MET:HB2	2.13	0.64
2:B:345:LYS:CG	2:B:346:GLU:H	2.11	0.64
11:W:45:LEU:HG	11:W:94:ILE:CD1	2.27	0.64
1:A:1011:GLN:HE22	1:A:1015:VAL:CG2	2.11	0.64
4:D:14:ARG:HB3	4:D:14:ARG:NH1	2.12	0.64
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.80	0.64
3:C:43:THR:CG2	3:C:44:LEU:N	2.60	0.64
2:N:23:ALA:HB1	2:N:24:PRO:HD2	1.80	0.64
2:N:780:VAL:HG21	10:V:56:LEU:HD11	1.80	0.64
4:P:163:VAL:O	4:P:166:LEU:HB3	1.98	0.64
2:B:597:MET:HA	2:B:597:MET:CE	2.27	0.64
2:B:797:TYR:C	2:B:798:TYR:HD2	2.01	0.64
1:M:567:LYS:CB	8:T:96:VAL:H	2.02	0.64
5:Q:56:LYS:CE	5:Q:84:ASP:HB2	2.24	0.64
12:L:47:ARG:NH1	12:L:47:ARG:HB2	2.12	0.64
1:M:903:ASN:C	1:M:903:ASN:HD22	2.00	0.64
7:S:81:PRO:HG3	7:S:106:MET:SD	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:78:CYS:SG	9:U:106:CYS:HB3	2.38	0.64
11:K:90:ALA:O	11:K:94:ILE:HG13	1.97	0.64
2:B:701:ILE:HD11	2:B:703:ILE:HD11	1.80	0.64
2:B:57:TYR:N	2:B:57:TYR:HD1	1.96	0.64
8:H:139:ASN:O	8:H:140:ALA:CB	2.46	0.64
7:G:1:MET:SD	7:G:2:PHE:N	2.70	0.64
1:M:518:LYS:HE2	1:M:624:SER:O	1.98	0.64
1:A:1139:GLU:O	1:A:1139:GLU:HG2	1.96	0.64
3:C:11:ARG:HH12	3:C:205:LYS:NZ	1.95	0.64
1:M:22:PHE:HB2	2:N:1211:ASN:ND2	2.13	0.64
8:H:82:PRO:C	8:H:84:ALA:N	2.52	0.64
2:N:120:ARG:NH1	12:X:54:ARG:HH11	1.96	0.64
2:B:1115:THR:O	2:B:1116:ARG:HB2	1.98	0.64
1:M:567:LYS:CB	1:M:568:PRO:CD	2.72	0.64
2:N:549:THR:HB	2:N:628:THR:OG1	1.97	0.64
1:M:1385:THR:CG2	1:M:1387:HIS:H	2.05	0.64
3:O:148:ARG:N	3:O:151:GLN:HG3	2.12	0.64
2:B:1037:LEU:HD21	2:B:1064:TYR:HE1	1.63	0.64
2:B:123:THR:HG21	2:B:458:LYS:HE2	1.79	0.64
1:M:331:GLY:O	1:M:332:LYS:O	2.15	0.64
1:A:741:ASN:HD22	1:A:744:LYS:H	1.44	0.64
5:Q:144:ILE:HG13	5:Q:145:THR:N	2.13	0.64
2:N:1100:ASP:OD2	11:W:1:MET:HB3	1.98	0.64
1:A:1029:ARG:HG3	1:A:1029:ARG:HH11	1.63	0.64
11:K:21:ILE:CG2	11:K:31:VAL:HG11	2.28	0.64
1:M:79:GLY:HA3	1:M:243:PRO:HG3	1.78	0.64
6:R:69:LEU:HB3	6:R:71:GLU:OE1	1.98	0.64
2:N:955:THR:HG22	2:N:956:THR:N	2.11	0.63
12:X:34:CYS:HB3	12:X:51:CYS:SG	2.38	0.63
2:N:553:PRO:O	2:N:557:PHE:HB2	1.97	0.63
2:B:577:ALA:CB	2:B:589:VAL:HG11	2.21	0.63
10:V:64:ASN:ND2	10:V:65:PRO:HD3	2.12	0.63
2:N:31:TRP:CZ3	2:N:34:ILE:HD12	2.33	0.63
8:H:130:ARG:HH11	8:H:130:ARG:HB2	1.62	0.63
5:E:16:PHE:CZ	5:E:20:LYS:HE2	2.33	0.63
1:A:773:LYS:H	1:A:773:LYS:HD2	1.63	0.63
9:I:58:VAL:HG13	9:I:62:ILE:HD13	1.80	0.63
2:N:186:GLU:HG2	10:V:62:ARG:HH22	1.63	0.63
1:M:596:THR:C	1:M:598:LEU:H	2.01	0.63
8:T:14:GLU:HG2	8:T:15:VAL:N	2.13	0.63
2:B:562:GLY:HA3	2:B:590:HIS:ND1	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:554:ILE:HD11	2:B:609:ILE:HG22	1.79	0.63
8:T:82:PRO:C	8:T:84:ALA:N	2.52	0.63
13:1:22:DC:C2'	13:1:23:BRU:H5'	2.25	0.63
1:A:670:ILE:HG23	1:A:805:LEU:HD21	1.78	0.63
2:N:126:SER:OG	2:N:172:ILE:HD11	1.98	0.63
11:W:21:ILE:HG23	11:W:33:ILE:HG12	1.80	0.63
5:E:100:ILE:HG23	5:E:105:PHE:HB2	1.80	0.63
1:M:883:LEU:HD23	1:M:1021:LEU:HD13	1.80	0.63
2:B:102:VAL:HG21	2:B:112:LEU:HD13	1.80	0.63
1:M:107:CYS:HA	1:M:171:GLN:NE2	2.13	0.63
12:L:38:LEU:HG	12:L:39:SER:H	1.64	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:N	1.97	0.63
4:P:14:ARG:O	4:P:16:LYS:N	2.25	0.63
7:S:111:THR:O	7:S:114:LEU:HB2	1.98	0.63
3:C:124:LEU:O	3:C:127:ARG:HG2	1.99	0.63
8:H:44:VAL:HG13	8:H:48:PRO:HA	1.81	0.63
2:B:484:ASN:O	2:B:491:THR:HG23	1.99	0.63
1:A:252:PHE:HB2	1:A:256:GLN:NE2	2.14	0.63
2:N:955:THR:OG1	12:X:55:ILE:HA	1.97	0.63
4:P:219:THR:HG22	4:P:220:LEU:O	1.98	0.63
9:I:61:ASP:C	9:I:63:GLY:H	2.00	0.63
2:B:798:TYR:HD1	10:J:4:PRO:HG3	1.64	0.63
5:Q:180:ARG:HB2	5:Q:215:MET:OXT	1.97	0.63
2:B:886:LYS:HE2	2:B:940:PRO:HD3	1.80	0.63
8:H:100:THR:OG1	8:H:138:GLU:HG2	1.99	0.63
2:N:370:PHE:HD2	2:N:373:ARG:CD	2.11	0.63
6:F:119:ARG:HH11	6:F:119:ARG:CG	2.11	0.63
6:F:75:PRO:O	6:F:77:ASP:O	2.16	0.63
2:B:282:ILE:O	2:B:286:PHE:HD1	1.81	0.63
5:Q:39:LEU:HG	5:Q:43:LYS:HE3	1.79	0.63
1:A:216:VAL:O	1:A:219:PHE:HB2	1.99	0.63
1:M:626:ASN:O	1:M:631:HIS:CD2	2.52	0.63
11:K:31:VAL:HG12	11:K:32:VAL:N	2.12	0.63
1:A:489:LEU:HD12	1:A:490:HIS:N	2.13	0.63
1:A:961:ARG:HH11	1:A:961:ARG:HB2	1.63	0.63
5:Q:178:ILE:HG22	5:Q:213:ILE:O	1.98	0.63
2:N:193:LYS:NZ	12:X:32:ALA:HB1	2.13	0.63
4:P:155:ARG:HH21	4:P:221:TYR:HD1	1.43	0.63
12:L:60:ARG:HG2	12:L:61:THR:N	2.13	0.63
2:B:284:ILE:HD13	2:B:333:PHE:HD2	1.64	0.63
2:N:1065:GLN:NE2	2:N:1067:ARG:H	1.94	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:87:ALA:CB	1:M:276:LEU:HD23	2.28	0.63
2:B:465:ASN:N	2:B:465:ASN:HD22	1.94	0.63
1:A:1410:PHE:HA	2:B:1212:ILE:HD11	1.80	0.63
1:M:252:PHE:O	1:M:256:GLN:NE2	2.30	0.63
2:B:1113:VAL:HG23	15:3:1:C:H4'	1.80	0.63
2:N:575:PRO:HG2	2:N:576:ASP:H	1.62	0.63
5:E:157:SER:OG	5:E:160:GLU:HG3	1.99	0.63
8:T:38:LEU:HD12	8:T:39:THR:H	1.64	0.63
1:M:567:LYS:NZ	8:T:43:ASN:HB3	2.14	0.63
2:N:422:LYS:O	2:N:426:LYS:HG2	1.97	0.63
1:A:1338:VAL:HG12	1:A:1339:LEU:HD23	1.81	0.63
1:A:1006:ILE:CD1	5:E:163:GLU:HG3	2.29	0.63
4:D:14:ARG:NH2	4:D:16:LYS:HD2	2.14	0.63
2:N:1001:PHE:CE1	2:N:1073:TYR:HB2	2.33	0.63
3:C:261:ALA:HA	3:C:264:GLN:OE1	1.99	0.63
1:M:949:ASP:OD1	1:M:951:GLU:HB2	1.99	0.63
5:Q:46:TYR:CD2	5:Q:58:MET:HG2	2.34	0.63
12:L:28:LYS:HE3	12:L:39:SER:OG	1.97	0.63
1:M:297:GLN:CA	1:M:297:GLN:HE21	2.02	0.63
1:M:903:ASN:HD22	1:M:904:THR:H	1.45	0.63
5:E:153:HIS:O	5:E:154:ILE:CG1	2.45	0.63
3:O:148:ARG:H	3:O:151:GLN:HG3	1.63	0.63
4:P:14:ARG:HB3	4:P:14:ARG:NH1	2.13	0.63
2:B:370:PHE:HD2	2:B:373:ARG:CD	2.12	0.63
2:N:284:ILE:HD13	2:N:333:PHE:HD2	1.63	0.63
4:P:71:LYS:HG2	4:P:74:GLN:NE2	2.14	0.63
2:B:293:PRO:HD2	2:B:296:GLU:OE1	1.99	0.63
1:A:666:ILE:HD12	1:A:667:GLY:H	1.62	0.63
9:I:76:PRO:HD2	9:I:108:HIS:CD2	2.32	0.63
4:P:35:LEU:HD11	4:P:173:HIS:CD2	2.34	0.63
15:6:2:G:O2'	15:6:3:A:H5'	1.99	0.63
1:A:1170:ILE:HD12	1:A:1170:ILE:H	1.62	0.63
1:A:1102:LYS:O	1:A:1106:ASN:ND2	2.32	0.63
13:1:25:DG:H2''	13:1:26:DT:C7	2.28	0.63
1:M:993:LEU:HD22	1:M:1046:LEU:HD22	1.81	0.63
1:A:332:LYS:C	1:A:334:GLY:H	2.02	0.63
1:A:596:THR:C	1:A:598:LEU:H	2.02	0.63
5:Q:56:LYS:HZ3	5:Q:84:ASP:H	1.47	0.63
2:B:751:VAL:HG13	2:B:812:LEU:CD2	2.27	0.63
7:S:106:MET:HG2	7:S:107:LYS:H	1.64	0.63
2:B:1096:ARG:HH1	2:B:1096:ARG:HB2	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:666:ILE:HD12	1:M:667:GLY:H	1.63	0.63
1:A:427:GLN:HG3	1:A:430:TRP:CZ2	2.33	0.63
2:N:1113:VAL:HG23	15:6:1:C:H4'	1.80	0.63
9:I:34:TYR:CD2	9:I:35:VAL:N	2.67	0.63
8:T:99:GLY:HA3	8:T:118:PHE:CD2	2.33	0.63
1:M:977:LYS:HB3	1:M:978:PRO:HD2	1.80	0.63
1:M:697:ALA:HB2	1:M:702:LEU:HD11	1.81	0.63
15:3:2:G:O2'	15:3:3:A:H5'	1.99	0.63
9:U:111:THR:HG22	9:U:112:SER:N	2.13	0.63
1:A:44:THR:O	1:A:45:GLN:HB2	1.98	0.63
12:L:61:THR:HG22	12:L:63:ARG:HG3	1.80	0.63
8:T:89:LEU:C	8:T:91:ASP:N	2.52	0.63
8:H:127:GLY:O	8:H:128:ASN:CB	2.47	0.63
1:A:961:ARG:HG2	1:A:965:GLN:HE21	1.63	0.63
3:C:36:VAL:HG21	3:C:251:LEU:HB2	1.81	0.63
2:N:1017:ILE:HB	2:N:1018:PRO:HD3	1.81	0.63
1:M:1076:ALA:HA	1:M:1079:MET:HG3	1.80	0.63
12:X:58:LYS:O	12:X:59:ALA:O	2.17	0.62
10:V:64:ASN:CB	10:V:65:PRO:CD	2.75	0.62
2:B:649:LYS:HD3	2:B:736:THR:O	1.99	0.62
2:N:1095:LEU:HD12	2:N:1095:LEU:N	2.14	0.62
2:N:654:ARG:HG3	2:N:654:ARG:HH11	1.64	0.62
7:S:21:ARG:HD2	7:S:24:GLN:CB	2.29	0.62
1:M:50:ILE:C	1:M:52:GLY:H	2.02	0.62
7:G:51:TYR:O	7:G:54:ILE:HG13	1.99	0.62
2:N:464:GLY:O	2:N:477:ALA:HA	1.99	0.62
9:U:111:THR:HG23	9:U:112:SER:H	1.63	0.62
3:O:66:ARG:HA	3:O:69:LEU:HD13	1.80	0.62
4:P:153:ARG:C	4:P:154:PHE:CD2	2.73	0.62
2:N:644:GLU:OE2	2:N:646:LEU:HB3	1.98	0.62
2:B:361:LEU:HD21	2:B:377:PHE:HD2	1.62	0.62
2:B:370:PHE:CD2	2:B:373:ARG:HD3	2.33	0.62
2:N:941:LEU:HD21	2:N:946:ASN:HA	1.80	0.62
1:M:789:LYS:HE3	9:U:67:THR:OG1	1.97	0.62
2:B:1084:GLN:N	2:B:1084:GLN:NE2	2.47	0.62
1:A:205:GLU:CD	1:A:205:GLU:H	2.01	0.62
2:N:233:PRO:HG2	2:N:234:ILE:HD13	1.80	0.62
1:M:270:LEU:O	1:M:274:ILE:HG13	1.98	0.62
2:N:102:VAL:HG21	2:N:112:LEU:HD13	1.81	0.62
1:A:63:ARG:HA	1:A:74:MET:CE	2.29	0.62
1:M:33:ALA:HA	1:M:57:ARG:NH1	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:58:LYS:O	12:L:59:ALA:O	2.17	0.62
2:B:579:ARG:HD2	2:B:586:TRP:CZ2	2.34	0.62
2:B:911:ILE:CG2	2:B:966:VAL:HG11	2.28	0.62
2:B:822:ASN:ND2	10:J:52:THR:HG21	2.14	0.62
1:M:709:THR:HB	1:M:712:GLU:HG3	1.81	0.62
2:N:815:ARG:HB2	2:N:815:ARG:HH11	1.65	0.62
1:A:635:ARG:HA	1:A:635:ARG:NH1	2.14	0.62
1:M:335:ARG:O	1:M:339:ASN:HB2	1.98	0.62
6:R:69:LEU:O	6:R:71:GLU:HG3	1.98	0.62
1:M:782:ARG:NH2	2:N:699:GLU:O	2.32	0.62
3:O:241:ASP:O	3:O:245:VAL:HG23	1.98	0.62
2:N:618:ASP:CG	2:N:621:GLU:HB3	2.20	0.62
2:N:516:ASN:N	2:N:516:ASN:ND2	2.30	0.62
7:G:126:ASN:HD22	7:G:127:PRO:N	1.97	0.62
2:B:365:THR:HG21	2:B:370:PHE:CG	2.34	0.62
13:4:22:DC:C2'	13:4:23:BRU:H5'	2.26	0.62
2:B:126:SER:OG	2:B:172:ILE:HD11	1.99	0.62
9:I:78:CYS:SG	9:I:106:CYS:HB3	2.40	0.62
3:C:73:GLN:HE21	3:C:75:MET:HB2	1.63	0.62
6:F:111:LEU:H	6:F:111:LEU:CD1	2.11	0.62
11:K:49:GLU:HG3	11:K:94:ILE:HG12	1.81	0.62
2:B:57:TYR:N	2:B:57:TYR:CD1	2.67	0.62
2:B:766:ARG:HH21	2:B:1020:ARG:HD3	1.63	0.62
1:A:252:PHE:O	1:A:256:GLN:NE2	2.32	0.62
2:B:398:ARG:CB	2:B:398:ARG:HH11	2.12	0.62
2:N:64:CYS:HA	2:N:67:SER:OG	1.99	0.62
2:N:309:GLN:CD	9:U:52:ILE:HD11	2.19	0.62
1:M:93:VAL:CG2	1:M:301:ALA:HA	2.28	0.62
2:B:43:LEU:HD11	2:B:811:TYR:O	1.99	0.62
1:M:1127:ASP:HB3	1:M:1130:GLN:HB3	1.79	0.62
7:S:150:CYS:SG	7:S:159:ALA:HB2	2.39	0.62
1:A:705:LYS:HB2	1:A:708:MET:HE3	1.81	0.62
4:P:134:THR:HG22	4:P:135:GLY:N	2.15	0.62
1:A:351:THR:HG21	2:B:1103:ILE:HG13	1.80	0.62
2:B:916:THR:O	2:B:935:ARG:HG2	1.99	0.62
2:N:427:ASP:HA	2:N:430:ARG:CD	2.29	0.62
2:N:168:GLY:HA2	2:N:454:THR:OG1	1.99	0.62
12:X:64:LEU:H	12:X:64:LEU:HD12	1.64	0.62
3:O:251:LEU:O	3:O:255:VAL:HG23	1.99	0.62
2:B:408:LEU:HD11	2:B:545:ILE:HD13	1.82	0.62
5:E:135:PHE:HD2	5:E:140:LEU:HD21	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1254:ALA:O	1:M:1255:GLU:HB3	2.00	0.62
2:B:557:PHE:CE1	2:B:603:LEU:HD11	2.35	0.62
7:S:142:ARG:C	7:S:143:ILE:HG12	2.19	0.62
2:B:217:ARG:C	2:B:217:ARG:HD2	2.20	0.62
5:Q:98:ILE:HG22	5:Q:102:GLU:HG3	1.82	0.62
7:S:35:GLU:HG2	7:S:48:VAL:HG23	1.82	0.62
7:G:13:LEU:HD21	7:G:17:PHE:HB2	1.81	0.62
1:M:98:LYS:O	1:M:102:VAL:HG23	2.00	0.62
8:T:127:GLY:O	8:T:128:ASN:CB	2.48	0.62
2:N:39:ARG:HH11	2:N:39:ARG:HG2	1.63	0.62
2:B:345:LYS:CE	2:B:349:ILE:HD11	2.29	0.62
1:M:1394:THR:CG2	1:M:1398:MET:SD	2.87	0.62
1:A:55:ASP:N	1:A:56:PRO:HD3	2.13	0.62
2:B:1115:THR:CG2	2:B:1117:GLN:HB2	2.29	0.62
2:N:1174:LYS:O	2:N:1176:ASN:N	2.32	0.62
2:B:287:ARG:HG2	2:B:292:ILE:HA	1.81	0.62
4:D:155:ARG:NH2	4:D:221:TYR:HD1	1.98	0.62
1:A:1141:THR:CG2	1:A:1205:LYS:HD3	2.30	0.62
10:V:16:ASP:OD1	10:V:17:LYS:HD2	1.98	0.62
1:M:888:GLY:O	1:M:940:ARG:NH2	2.33	0.62
3:C:8:VAL:O	3:C:9:LYS:HG3	2.00	0.62
10:J:7:CYS:HB2	10:J:49:MET:HE3	1.82	0.62
9:I:111:THR:CG2	9:I:112:SER:H	2.11	0.62
1:A:49:LYS:CD	1:A:55:ASP:HB3	2.30	0.62
12:L:34:CYS:SG	12:L:34:CYS:O	2.57	0.62
2:B:941:LEU:HD21	2:B:946:ASN:HA	1.82	0.62
1:A:690:VAL:CG2	1:A:718:VAL:HG13	2.30	0.62
1:M:399:HIS:HB3	1:M:400:PRO:CD	2.29	0.62
1:A:901:LEU:HB2	1:A:926:GLN:HG2	1.82	0.62
1:A:1385:THR:HG22	1:A:1387:HIS:N	2.12	0.62
2:B:227:LYS:H	2:B:395:GLN:CD	2.03	0.62
14:5:3:DT:H2"	14:5:4:DA:OP2	2.00	0.62
2:N:811:TYR:N	2:N:811:TYR:CD1	2.68	0.62
2:B:39:ARG:NH2	2:B:665:GLU:HG2	2.15	0.62
1:A:535:THR:HG21	1:A:617:VAL:H	1.65	0.62
3:C:184:ASN:ND2	3:C:189:THR:HB	2.14	0.62
1:M:497:THR:HG23	2:N:1146:PHE:HD1	1.65	0.62
1:A:675:THR:HG21	1:A:736:ASN:CB	2.30	0.62
1:M:38:PRO:HA	1:M:270:LEU:HD23	1.81	0.62
5:E:44:ALA:O	5:E:45:LYS:HB2	2.00	0.62
1:A:1193:LEU:HD12	1:A:1194:ARG:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:32:GLU:O	7:S:5:LYS:NZ	2.30	0.62
2:B:810:GLU:HB2	2:B:815:ARG:HH22	1.63	0.62
1:A:857:ARG:HD3	1:A:861:GLY:O	2.00	0.62
10:V:1:MET:H1	10:V:56:LEU:N	1.98	0.62
1:A:49:LYS:HD2	1:A:55:ASP:HB3	1.80	0.62
4:P:185:CYS:SG	4:P:190:GLU:HG2	2.40	0.62
1:M:49:LYS:HZ3	1:M:61:ILE:HG13	1.64	0.62
7:S:87:VAL:CG2	7:S:103:VAL:HG11	2.30	0.62
2:B:284:ILE:HD13	2:B:333:PHE:CD2	2.34	0.62
2:B:333:PHE:O	2:B:334:ILE:HG13	2.00	0.62
1:A:1445:ILE:HD12	1:A:1445:ILE:N	2.14	0.62
2:N:288:ALA:CB	2:N:331:LEU:HD12	2.30	0.62
2:B:839:MET:CE	2:B:980:PHE:HB2	2.29	0.62
2:B:642:ASP:HB3	2:B:649:LYS:HD2	1.80	0.62
2:N:652:LYS:HD2	2:N:688:GLY:O	2.00	0.62
1:M:219:PHE:CE2	1:M:231:PRO:HD2	2.33	0.62
1:M:1118:VAL:CG2	1:M:1306:LEU:HB2	2.30	0.62
7:G:115:MET:O	7:G:164:LYS:HD3	2.00	0.62
1:M:960:ILE:O	1:M:963:ILE:HG22	2.00	0.62
2:N:53:GLN:HG2	2:N:547:VAL:CG2	2.30	0.62
3:O:69:LEU:N	3:O:69:LEU:HD12	2.14	0.61
8:T:130:ARG:HB3	8:T:134:ASN:H	1.66	0.61
1:A:399:HIS:HB3	1:A:400:PRO:CD	2.29	0.61
1:M:427:GLN:HG3	1:M:430:TRP:CZ2	2.35	0.61
1:M:675:THR:O	1:M:679:ILE:HG13	2.00	0.61
2:N:886:LYS:HE2	2:N:940:PRO:HD3	1.82	0.61
11:K:65:HIS:HD2	11:K:67:PHE:N	1.97	0.61
1:M:99:ILE:HG23	1:M:211:PHE:HE2	1.64	0.61
6:F:97:ARG:NH2	6:F:108:PHE:HE1	1.98	0.61
2:B:345:LYS:HE3	2:B:349:ILE:HD11	1.81	0.61
2:N:847:ASP:C	2:N:849:GLY:H	2.02	0.61
2:N:953:LEU:CD2	2:N:965:LYS:HB2	2.30	0.61
2:B:1220:ARG:NH1	2:B:1220:ARG:HB3	2.15	0.61
1:M:803:SER:OG	1:M:806:ARG:HG3	1.99	0.61
1:A:268:ASP:HB3	1:A:299:HIS:ND1	2.15	0.61
2:B:521:LEU:HB3	2:B:633:VAL:HG11	1.81	0.61
1:M:56:PRO:O	1:M:57:ARG:HG3	2.00	0.61
2:N:549:THR:CG2	2:N:550:ASP:N	2.62	0.61
2:B:334:ILE:O	2:B:334:ILE:HG22	1.98	0.61
2:N:129:PHE:HD2	2:N:166:PHE:HA	1.66	0.61
2:B:758:PHE:HE1	2:B:1027:ILE:HG22	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:287:ARG:NH1	2:N:324:ILE:O	2.32	0.61
2:N:241:ARG:HG2	2:N:253:THR:HG21	1.82	0.61
2:N:862:GLN:HG2	2:N:963:PHE:CD1	2.32	0.61
1:M:78:PRO:HA	2:N:1201:LYS:NZ	2.15	0.61
7:S:53:ASN:N	7:S:53:ASN:ND2	2.47	0.61
4:D:71:LYS:HA	4:D:74:GLN:CB	2.29	0.61
2:N:953:LEU:HD23	2:N:953:LEU:O	2.00	0.61
4:P:29:LEU:HD22	4:P:29:LEU:N	2.15	0.61
3:C:189:THR:HG22	3:C:190:ASP:N	2.15	0.61
4:D:175:PHE:HZ	7:G:85:GLU:HG3	1.66	0.61
1:A:1200:ALA:HA	1:A:1203:ASN:HD22	1.65	0.61
1:A:856:THR:HB	1:A:865:GLN:HB2	1.81	0.61
1:M:364:VAL:HG13	1:M:364:VAL:O	1.99	0.61
1:M:1029:ARG:HG3	1:M:1029:ARG:HH11	1.65	0.61
2:N:235:SER:OG	2:N:236:HIS:CD2	2.54	0.61
2:B:326:ASP:OD2	2:B:328:GLU:HB3	2.01	0.61
8:H:89:LEU:C	8:H:91:ASP:N	2.54	0.61
1:M:70:CYS:O	1:M:72:GLU:HG2	2.00	0.61
10:J:64:ASN:ND2	10:J:65:PRO:HD3	2.14	0.61
2:N:336:ARG:NH1	2:N:336:ARG:HG3	2.15	0.61
1:A:852:TYR:CD2	1:A:1060:PRO:HB2	2.35	0.61
2:N:29:ASP:HB3	2:N:658:ILE:HD13	1.82	0.61
2:B:35:SER:HA	2:B:811:TYR:HE2	1.65	0.61
3:C:143:LEU:HD21	3:C:146:LYS:CE	2.29	0.61
6:F:69:LEU:O	6:F:71:GLU:HG3	1.99	0.61
2:N:57:TYR:N	2:N:57:TYR:HD1	1.98	0.61
1:M:7:SER:OG	2:N:1161:HIS:CE1	2.52	0.61
4:P:29:LEU:HD12	7:S:82:PHE:CE2	2.35	0.61
1:M:960:ILE:HA	1:M:963:ILE:HG22	1.82	0.61
1:A:982:THR:O	1:A:985:ASP:HB2	2.00	0.61
2:N:192:LEU:O	2:N:193:LYS:HB2	2.00	0.61
12:X:55:ILE:HG12	12:X:56:LEU:N	2.08	0.61
2:N:577:ALA:CB	2:N:589:VAL:HG11	2.22	0.61
1:A:351:THR:CG2	2:B:1103:ILE:HG13	2.30	0.61
6:F:103:MET:HE1	7:G:66:GLY:H	1.64	0.61
2:N:418:LYS:HE2	2:N:422:LYS:NZ	2.15	0.61
6:R:111:LEU:O	6:R:113:GLY:N	2.28	0.61
1:A:1011:GLN:HE22	1:A:1015:VAL:HG21	1.64	0.61
1:A:500:GLU:OE2	2:B:1145:SER:HB2	1.99	0.61
1:A:341:MET:HE2	2:B:1135:ARG:NH1	2.15	0.61
2:B:68:THR:HA	2:B:90:ILE:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:X:38:LEU:HD13	12:X:49:LYS:HE2	1.82	0.61
2:B:277:LYS:HE2	2:B:336:ARG:C	2.20	0.61
2:N:911:ILE:CG2	2:N:966:VAL:HG11	2.30	0.61
2:N:766:ARG:NH2	2:N:1020:ARG:CD	2.62	0.61
14:2:3:DT:H2"	14:2:4:DA:OP2	2.00	0.61
1:A:1241:ARG:O	1:A:1242:VAL:HG23	2.01	0.61
2:B:637:LEU:HD21	2:B:742:GLU:OE2	2.01	0.61
4:D:14:ARG:O	4:D:16:LYS:N	2.27	0.61
5:Q:22:MET:HE1	5:Q:26:ARG:NH2	2.14	0.61
1:A:782:ARG:NH2	2:B:699:GLU:O	2.33	0.61
7:G:55:ASP:OD1	7:G:57:GLN:HG3	2.00	0.61
1:A:50:ILE:C	1:A:52:GLY:H	2.03	0.61
4:P:52:LEU:O	4:P:54:GLU:N	2.34	0.61
12:L:49:LYS:O	12:L:50:ASP:HB2	2.00	0.61
1:M:444:PHE:CE2	1:M:487:MET:HE2	2.35	0.61
1:A:710:LEU:HD22	9:I:96:SER:HA	1.82	0.61
1:A:684:ALA:O	1:A:687:LYS:HB2	2.01	0.61
2:B:100:PRO:HB2	2:B:180:TYR:HE1	1.65	0.61
1:M:1120:LEU:O	1:M:1323:ASP:HB2	2.01	0.61
1:A:172:PRO:HB3	1:A:185:TRP:CD2	2.34	0.61
8:H:130:ARG:HH11	8:H:130:ARG:H	1.47	0.61
1:A:317:LYS:O	1:A:318:SER:CB	2.49	0.61
2:B:652:LYS:HB3	2:B:689:LEU:HD23	1.81	0.61
8:T:11:GLN:HA	8:T:53:ASP:O	2.01	0.61
8:T:51:ALA:O	8:T:52:GLN:HB2	2.01	0.61
2:B:464:GLY:O	2:B:477:ALA:HA	2.00	0.61
1:M:40:THR:HG23	1:M:54:ASN:HD21	1.66	0.61
1:M:598:LEU:HD23	1:M:598:LEU:O	2.01	0.61
2:B:516:ASN:ND2	2:B:516:ASN:H	1.90	0.61
2:B:864:LYS:HG3	2:B:872:GLU:OE1	1.99	0.61
2:N:68:THR:HA	2:N:90:ILE:O	2.00	0.61
2:B:1096:ARG:NH1	2:B:1096:ARG:HB2	2.15	0.61
5:E:198:ILE:HD11	5:E:212:ARG:HG3	1.82	0.61
4:P:71:LYS:HA	4:P:74:GLN:CB	2.30	0.61
1:A:38:PRO:CA	1:A:270:LEU:HD23	2.30	0.61
3:C:6:PRO:CB	3:C:25:VAL:HG22	2.30	0.61
8:T:44:VAL:HG13	8:T:48:PRO:HA	1.82	0.61
2:N:345:LYS:HE3	2:N:349:ILE:HD11	1.83	0.61
2:B:815:ARG:HD3	2:B:1041:GLU:OE2	2.00	0.61
2:B:787:VAL:HG12	2:B:787:VAL:O	1.98	0.61
7:G:21:ARG:HD2	7:G:24:GLN:CB	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:29:PHE:O	5:E:30:ILE:HG13	2.00	0.61
10:J:23:ASN:C	10:J:25:LEU:H	2.04	0.61
11:K:46:ILE:O	11:K:50:LEU:HB2	2.00	0.61
3:C:101:LEU:C	3:C:102:GLN:HG2	2.21	0.61
2:N:167:ILE:HG22	2:N:453:ILE:HD12	1.82	0.61
2:N:857:ARG:HH21	2:N:942:ARG:CZ	2.13	0.61
2:B:425:THR:HA	2:B:428:ILE:HD12	1.82	0.61
2:N:221:ASN:OD1	2:N:242:SER:HA	2.01	0.61
2:N:918:ILE:HD12	2:N:935:ARG:NH1	2.16	0.61
8:H:128:ASN:ND2	8:H:131:ASN:OD1	2.33	0.61
2:B:53:GLN:HG2	2:B:547:VAL:CG2	2.31	0.61
8:H:24:CYS:HB2	8:H:44:VAL:HG21	1.81	0.61
4:P:7:THR:O	4:P:9:GLN:N	2.33	0.61
1:A:1255:GLU:HG3	1:A:1258:HIS:HD2	1.62	0.61
2:N:1220:ARG:NH1	2:N:1220:ARG:HB3	2.16	0.61
9:U:111:THR:HG21	9:U:113:ASP:HB2	1.82	0.61
8:H:104:PHE:CZ	8:H:136:LYS:HA	2.36	0.61
5:E:198:ILE:CD1	5:E:212:ARG:HG3	2.31	0.61
4:D:148:LEU:O	4:D:152:SER:OG	2.16	0.61
2:B:983:ARG:HD2	2:B:1091:TYR:HB3	1.83	0.61
2:N:1181:GLU:HA	2:N:1187:ASN:O	2.00	0.61
2:B:398:ARG:HB2	2:B:398:ARG:NH1	2.15	0.61
10:J:24:LEU:N	10:J:24:LEU:HD23	2.15	0.61
4:D:25:ALA:HB1	4:D:196:PRO:HG2	1.83	0.61
2:N:955:THR:CG2	2:N:956:THR:N	2.63	0.61
2:B:192:LEU:O	2:B:193:LYS:HB2	2.01	0.61
1:A:1116:LEU:HB2	1:A:1329:THR:OG1	2.00	0.61
3:C:148:ARG:NH1	3:C:149:LYS:HE3	2.16	0.61
2:B:806:THR:CG2	2:B:808:ALA:HB3	2.31	0.61
2:B:309:GLN:OE1	9:I:52:ILE:HD11	2.01	0.61
3:O:8:VAL:HG12	3:O:9:LYS:N	2.16	0.61
5:E:65:THR:O	5:E:69:ILE:HD12	2.01	0.61
2:N:902:GLY:O	12:X:65:VAL:HG11	2.00	0.61
2:N:549:THR:CG2	2:N:550:ASP:H	2.14	0.60
7:G:34:VAL:HG11	7:G:74:TYR:CE1	2.32	0.60
1:M:821:ARG:NH1	1:M:821:ARG:HB2	2.15	0.60
5:Q:78:LEU:HB2	5:Q:107:THR:HB	1.83	0.60
2:N:240:ILE:HG23	2:N:254:LEU:HB3	1.83	0.60
3:O:248:ILE:HD13	11:W:101:LEU:HD22	1.83	0.60
1:M:1291:VAL:HG22	1:M:1292:PRO:CD	2.31	0.60
2:B:770:GLN:CD	2:B:983:ARG:HA	2.21	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:866:PHE:O	1:M:867:ILE:HD12	2.00	0.60
2:B:575:PRO:HG2	2:B:576:ASP:H	1.64	0.60
3:O:261:ALA:HA	3:O:264:GLN:OE1	2.00	0.60
1:A:598:LEU:CD1	8:H:124:ARG:HB2	2.31	0.60
1:M:857:ARG:CZ	6:R:139:PRO:HG3	2.31	0.60
12:X:34:CYS:HB3	12:X:51:CYS:HG	1.66	0.60
10:J:1:MET:H1	10:J:56:LEU:N	1.99	0.60
1:M:828:ALA:CB	2:N:530:GLY:HA2	2.31	0.60
7:G:138:THR:HG22	7:G:139:ILE:H	1.63	0.60
7:S:115:MET:HB3	7:S:116:PRO:CD	2.30	0.60
2:B:172:ILE:HD13	2:B:178:ASN:HD22	1.66	0.60
2:N:123:THR:O	2:N:125:SER:N	2.34	0.60
2:N:39:ARG:NH2	2:N:665:GLU:HG2	2.16	0.60
1:M:332:LYS:O	1:M:333:GLU:HB2	2.00	0.60
2:N:57:TYR:N	2:N:57:TYR:CD1	2.69	0.60
2:N:291:ILE:HD13	2:N:300:HIS:NE2	2.16	0.60
1:A:939:ASP:OD2	1:A:1023:ARG:NH1	2.34	0.60
2:B:1147:LEU:HD22	2:B:1151:LEU:HD22	1.82	0.60
1:M:705:LYS:HB2	1:M:708:MET:HE3	1.82	0.60
1:A:150:THR:HG23	1:A:166:GLY:HA2	1.83	0.60
9:I:101:PHE:N	9:I:101:PHE:CD1	2.69	0.60
2:N:865:LYS:HG2	2:N:961:LEU:HD21	1.82	0.60
2:B:797:TYR:HE1	2:B:854:LEU:CD2	2.15	0.60
2:N:653:VAL:CG2	2:N:689:LEU:HB3	2.31	0.60
4:D:12:ARG:NH1	4:D:14:ARG:HA	2.17	0.60
2:N:983:ARG:NH1	2:N:1028:GLU:OE1	2.35	0.60
1:M:573:SER:O	1:M:576:GLN:HB2	2.01	0.60
10:V:23:ASN:C	10:V:25:LEU:H	2.05	0.60
1:M:1206:ASP:O	1:M:1274:ARG:CZ	2.49	0.60
2:N:359:GLU:O	2:N:362:PRO:HD3	2.02	0.60
3:O:172:PRO:O	3:O:235:VAL:HG23	2.02	0.60
2:N:189:LEU:O	2:N:192:LEU:N	2.32	0.60
1:M:1420:ASP:O	1:M:1421:CYS:HB2	2.00	0.60
6:F:89:GLU:O	6:F:93:ILE:HD12	2.02	0.60
2:N:334:ILE:HG22	2:N:334:ILE:O	2.02	0.60
1:A:79:GLY:HA3	1:A:243:PRO:CG	2.31	0.60
2:N:39:ARG:NH1	2:N:39:ARG:HG2	2.17	0.60
2:N:662:MET:HA	2:N:665:GLU:HG3	1.83	0.60
3:O:189:THR:HG22	3:O:190:ASP:N	2.16	0.60
1:A:920:LEU:HD23	1:A:921:GLY:N	2.16	0.60
8:H:123:MET:HE3	8:H:142:LEU:HD22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:102:VAL:HG22	2:N:112:LEU:HD22	1.83	0.60
4:P:151:PHE:HD1	4:P:151:PHE:H	1.48	0.60
4:P:193:THR:HG22	4:P:194:LEU:N	2.16	0.60
1:M:44:THR:O	1:M:45:GLN:HB2	2.01	0.60
1:M:590:ARG:NH1	1:M:590:ARG:HG2	2.16	0.60
1:M:1208:THR:HG22	1:M:1210:GLY:H	1.66	0.60
1:M:709:THR:HG22	1:M:710:LEU:H	1.66	0.60
4:D:71:LYS:HA	4:D:74:GLN:CG	2.31	0.60
1:M:870:GLU:HG2	5:Q:208:TYR:CD2	2.36	0.60
1:A:1215:ARG:NH1	1:A:1272:THR:O	2.34	0.60
12:L:47:ARG:HG2	12:L:48:CYS:H	1.65	0.60
1:A:1441:PHE:CZ	6:F:89:GLU:HA	2.36	0.60
2:N:25:ILE:HG22	2:N:658:ILE:HD12	1.83	0.60
2:B:547:VAL:HG12	2:B:612:GLU:OE2	2.02	0.60
10:J:24:LEU:O	10:J:30:LEU:HB2	2.01	0.60
1:M:705:LYS:HB2	1:M:708:MET:CE	2.31	0.60
2:B:120:ARG:NH1	12:L:54:ARG:NH1	2.50	0.60
1:A:129:LYS:O	1:A:130:ASP:CB	2.49	0.60
2:B:171:PRO:HD2	2:B:457:LEU:HD12	1.82	0.60
1:A:567:LYS:CB	1:A:568:PRO:CD	2.74	0.60
2:B:1116:ARG:HG3	2:B:1198:TYR:CG	2.37	0.60
4:P:154:PHE:CE1	4:P:163:VAL:HG21	2.35	0.60
4:P:209:ARG:HG2	4:P:209:ARG:NH1	2.17	0.60
4:P:162:ALA:CB	4:P:217:LEU:HD13	2.32	0.60
8:T:123:MET:HE3	8:T:142:LEU:CD2	2.31	0.60
2:B:364:ILE:HG12	2:B:585:VAL:HG13	1.84	0.60
1:M:675:THR:HG21	1:M:736:ASN:CB	2.32	0.60
4:P:63:LEU:HD22	4:P:133:THR:OG1	2.01	0.60
1:M:1110:ASN:N	1:M:1110:ASN:ND2	2.49	0.60
1:M:709:THR:HG22	1:M:711:ARG:H	1.66	0.60
1:A:1438:THR:HG22	6:F:92:ARG:HD2	1.84	0.60
1:A:335:ARG:HH12	2:B:1206:GLU:CD	2.04	0.60
1:A:671:ALA:HB3	1:A:676:MET:CE	2.32	0.60
1:A:145:LYS:HE3	1:A:145:LYS:HA	1.82	0.60
8:T:56:THR:HB	8:T:145:ARG:HG2	1.82	0.60
6:R:116:ASP:HB3	6:R:119:ARG:HB2	1.84	0.60
2:N:797:TYR:O	10:V:1:MET:HG2	2.02	0.60
1:M:831:THR:O	1:M:834:THR:HG22	2.02	0.60
7:S:116:PRO:HG2	7:S:119:LEU:HB3	1.84	0.60
1:A:690:VAL:HG21	1:A:718:VAL:HG13	1.82	0.60
2:B:123:THR:HG23	2:B:205:ILE:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:100:THR:OG1	8:T:138:GLU:HG2	2.00	0.60
1:M:225:ASN:HD22	1:M:228:PHE:H	1.46	0.60
1:M:79:GLY:HA3	1:M:243:PRO:CG	2.32	0.60
2:B:29:ASP:HB3	2:B:658:ILE:CD1	2.32	0.60
12:X:61:THR:HG21	12:X:63:ARG:HG3	1.84	0.60
2:B:579:ARG:HG2	2:B:579:ARG:NH1	2.17	0.60
2:B:34:ILE:HG23	2:B:542:MET:HE1	1.84	0.60
1:A:399:HIS:CB	1:A:400:PRO:HD3	2.28	0.60
5:E:185:ALA:O	5:E:190:LEU:HG	2.02	0.60
11:K:51:LEU:CD1	11:K:59:ALA:HB3	2.31	0.60
3:O:203:GLN:HG2	3:O:207:CYS:SG	2.42	0.60
9:I:82:GLU:HB3	9:I:104:LEU:HD12	1.83	0.60
1:M:1149:ALA:HB2	9:U:47:GLU:HA	1.83	0.60
2:B:308:TRP:CH2	9:I:45:ARG:HG2	2.36	0.60
2:B:307:ASP:OD2	2:B:310:MET:HB2	2.01	0.60
2:N:798:TYR:HE2	3:O:62:PHE:CZ	2.19	0.60
9:I:111:THR:HG22	9:I:112:SER:N	2.17	0.60
2:N:102:VAL:CG2	2:N:112:LEU:HB2	2.18	0.60
4:P:194:LEU:HB3	7:S:86:VAL:HG21	1.83	0.60
1:M:33:ALA:HA	1:M:57:ARG:HH12	1.66	0.60
3:C:101:LEU:CD1	3:C:118:LEU:HD23	2.27	0.60
1:A:1308:THR:HG23	1:A:1310:GLY:H	1.67	0.60
4:P:188:ALA:O	4:P:192:LYS:HG2	2.02	0.60
2:N:1096:ARG:O	2:N:1097:HIS:CB	2.49	0.60
1:A:172:PRO:HD3	1:A:185:TRP:NE1	2.17	0.60
1:M:7:SER:HB3	2:N:1193:GLN:HE22	1.67	0.60
2:N:1202:LEU:O	2:N:1206:GLU:HG3	2.01	0.60
1:M:35:ILE:HG22	1:M:35:ILE:O	2.00	0.60
2:B:120:ARG:NH1	12:L:54:ARG:HH11	2.00	0.60
1:A:1324:PRO:HB2	5:E:142:VAL:HG11	1.84	0.60
8:H:11:GLN:HA	8:H:53:ASP:O	2.02	0.59
2:N:863:GLU:O	2:N:961:LEU:HD13	2.02	0.59
4:P:51:ASN:OD1	4:P:52:LEU:O	2.20	0.59
12:L:40:LEU:HD22	12:L:44:ASP:CG	2.22	0.59
4:P:118:THR:HG21	4:P:121:LYS:HE3	1.83	0.59
7:G:138:THR:CG2	7:G:139:ILE:N	2.63	0.59
2:B:278:GLN:CG	2:B:279:ASP:H	2.15	0.59
1:A:7:SER:OG	2:B:1161:HIS:HE1	1.85	0.59
2:N:217:ARG:HD2	2:N:217:ARG:C	2.22	0.59
2:N:96:TYR:N	2:N:129:PHE:O	2.30	0.59
3:C:124:LEU:HD21	3:C:129:ILE:O	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1294:PRO:HG2	1:A:1295:THR:HG22	1.83	0.59
3:C:184:ASN:OD1	3:C:187:LYS:HA	2.01	0.59
2:N:236:HIS:CE1	2:N:389:ALA:HA	2.37	0.59
5:Q:32:GLN:HG3	5:Q:36:GLU:OE2	2.02	0.59
8:H:82:PRO:O	8:H:84:ALA:N	2.34	0.59
4:P:144:THR:HG21	7:S:46:LEU:HD13	1.83	0.59
1:A:253:ASN:HD22	2:B:884:ARG:HD2	1.66	0.59
2:B:863:GLU:O	2:B:961:LEU:HD13	2.02	0.59
2:N:34:ILE:HG12	2:N:542:MET:CE	2.33	0.59
7:S:142:ARG:HB3	7:S:171:ILE:HD11	1.84	0.59
6:F:111:LEU:C	6:F:113:GLY:H	2.05	0.59
1:M:1114:PRO:O	1:M:1311:VAL:HG23	2.02	0.59
2:N:29:ASP:HB3	2:N:658:ILE:CD1	2.32	0.59
6:R:109:VAL:CG1	6:R:110:ASP:N	2.64	0.59
1:A:1130:GLN:HA	1:A:1133:LEU:HD12	1.84	0.59
4:P:173:HIS:CE1	4:P:175:PHE:H	2.21	0.59
1:A:628:GLY:O	1:A:632:VAL:HG23	2.02	0.59
2:B:902:GLY:O	12:L:65:VAL:HG11	2.01	0.59
8:T:32:THR:HG22	8:T:33:GLN:OE1	2.01	0.59
1:A:56:PRO:O	1:A:57:ARG:HG3	2.02	0.59
4:P:130:LEU:HD13	4:P:142:LYS:HG2	1.84	0.59
12:X:49:LYS:O	12:X:50:ASP:CB	2.50	0.59
1:M:1259:MET:CE	1:M:1263:ILE:HG13	2.31	0.59
2:B:189:LEU:O	2:B:192:LEU:N	2.33	0.59
2:B:936:ASP:OD1	2:B:937:ALA:N	2.36	0.59
1:A:285:PRO:CG	1:A:288:ALA:HB3	2.27	0.59
2:B:830:TYR:CE2	2:B:1000:PRO:HD3	2.36	0.59
7:S:126:ASN:HD22	7:S:127:PRO:CA	2.15	0.59
1:M:1210:GLY:O	1:M:1214:GLU:HG2	2.02	0.59
4:P:188:ALA:O	4:P:192:LYS:CG	2.51	0.59
7:G:26:LEU:CD1	7:G:56:ILE:HD11	2.30	0.59
2:N:1181:GLU:HB2	2:N:1188:LYS:HG3	1.84	0.59
7:G:117:GLN:NE2	7:S:154:VAL:HG22	2.18	0.59
4:D:5:THR:HG23	4:D:5:THR:O	2.02	0.59
2:B:211:VAL:O	2:B:480:SER:HA	2.02	0.59
1:A:332:LYS:O	1:A:333:GLU:HB2	2.02	0.59
1:M:597:LEU:HD23	8:T:103:LYS:HD2	1.83	0.59
1:A:239:LEU:HD12	1:A:240:PRO:HD2	1.84	0.59
1:A:568:PRO:HB2	3:C:221:TYR:CZ	2.37	0.59
3:O:66:ARG:NH1	10:V:2:ILE:CG2	2.64	0.59
8:T:42:ILE:HG23	8:T:95:TYR:CE1	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:297:GLN:HA	1:A:297:GLN:NE2	2.08	0.59
1:A:283:GLY:O	1:A:285:PRO:HD3	2.02	0.59
6:R:99:LEU:O	6:R:103:MET:HG2	2.02	0.59
2:B:273:LEU:HD12	2:B:280:ILE:HD12	1.83	0.59
7:S:111:THR:HG22	7:S:114:LEU:HD22	1.84	0.59
1:A:715:GLU:OE1	1:A:774:ARG:HD3	2.03	0.59
2:B:123:THR:O	2:B:125:SER:N	2.36	0.59
5:E:131:THR:HG21	5:E:191:LYS:NZ	2.18	0.59
2:B:298:LEU:N	2:B:298:LEU:HD22	2.17	0.59
2:B:770:GLN:HG2	2:B:983:ARG:O	2.02	0.59
2:N:1187:ASN:OD1	2:N:1188:LYS:N	2.35	0.59
2:N:345:LYS:CG	2:N:346:GLU:N	2.65	0.59
8:H:130:ARG:HB3	8:H:134:ASN:H	1.68	0.59
2:B:766:ARG:NH2	2:B:1020:ARG:CD	2.65	0.59
7:S:109:PHE:O	7:S:160:ILE:HG23	2.01	0.59
4:D:202:ILE:HG23	4:D:207:LEU:HB2	1.84	0.59
1:A:1171:GLN:OE1	1:A:1172:LEU:N	2.36	0.59
1:M:105:CYS:SG	1:M:139:TRP:HA	2.42	0.59
2:B:549:THR:CG2	2:B:550:ASP:H	2.15	0.59
1:M:297:GLN:NE2	1:M:297:GLN:HA	2.06	0.59
8:T:84:ALA:CB	8:T:87:ARG:HB2	2.31	0.59
5:Q:198:ILE:HD11	5:Q:212:ARG:HG3	1.83	0.59
2:B:848:ARG:HH22	2:B:996:ARG:HD3	1.66	0.59
2:N:941:LEU:CD1	2:N:968:VAL:HG21	2.33	0.59
2:N:1115:THR:O	2:N:1116:ARG:HB2	2.02	0.59
2:N:384:ARG:HH12	2:N:393:LYS:HD3	1.68	0.59
2:N:766:ARG:NH2	2:N:1020:ARG:HD2	2.18	0.59
1:M:116:ASP:OD2	1:M:164:ARG:HD2	2.02	0.59
1:M:1241:ARG:O	1:M:1242:VAL:CB	2.50	0.59
3:C:184:ASN:HD21	3:C:189:THR:HB	1.67	0.59
1:A:331:GLY:O	1:A:332:LYS:O	2.20	0.59
4:D:13:ARG:O	4:D:15:LEU:N	2.29	0.59
2:B:887:HIS:CD2	2:B:887:HIS:N	2.69	0.59
9:U:84:VAL:O	9:U:84:VAL:HG13	2.02	0.59
1:M:528:LEU:HD23	1:M:751:SER:HA	1.84	0.59
3:O:254:LYS:HE2	11:W:42:LEU:HD13	1.85	0.59
8:H:84:ALA:HB1	8:H:87:ARG:HB2	1.84	0.59
2:N:639:ILE:HD11	2:N:691:GLU:HB2	1.84	0.59
2:B:615:MET:CB	2:B:626:ILE:HG12	2.26	0.59
2:B:244:LEU:HD21	2:B:366:GLN:NE2	2.17	0.59
2:B:999:MET:HE2	2:B:1000:PRO:HD2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:96:TYR:HB2	2:N:129:PHE:HB2	1.82	0.59
2:N:899:ILE:HD11	2:N:911:ILE:HA	1.84	0.59
9:U:52:ILE:O	9:U:52:ILE:HG13	2.02	0.59
1:M:675:THR:OG1	1:M:736:ASN:ND2	2.34	0.59
2:B:642:ASP:HB3	2:B:649:LYS:CD	2.32	0.59
3:O:39:ALA:O	3:O:164:ALA:HB3	2.02	0.59
11:W:82:ASP:OD1	11:W:84:LYS:N	2.35	0.59
3:C:114:TYR:CD2	3:C:140:ASN:HB3	2.37	0.59
9:U:73:ARG:HD2	9:U:101:PHE:CE2	2.37	0.59
1:A:63:ARG:HA	1:A:74:MET:HE2	1.85	0.59
1:M:62:ASP:O	1:M:64:ASN:HB2	2.03	0.59
1:M:68:GLN:O	1:M:68:GLN:OE1	2.20	0.59
1:A:110:CYS:HB3	1:A:167:CYS:SG	2.42	0.59
2:N:810:GLU:CB	2:N:815:ARG:HH22	2.14	0.59
1:M:908:LEU:HD11	1:M:983:ILE:HD11	1.84	0.59
1:A:1208:THR:HG22	1:A:1210:GLY:N	2.18	0.59
11:K:49:GLU:HG3	11:K:94:ILE:CG1	2.32	0.59
2:B:637:LEU:HD12	2:B:693:ILE:CD1	2.33	0.59
1:A:671:ALA:HB3	1:A:676:MET:HE2	1.85	0.59
1:M:323:LYS:H	1:M:323:LYS:HD2	1.66	0.59
2:B:224:GLN:HA	2:B:396:ASP:OD2	2.03	0.59
5:E:4:GLU:HB3	5:E:7:ARG:HE	1.68	0.59
12:X:38:LEU:HG	12:X:39:SER:H	1.67	0.59
8:T:89:LEU:HB2	8:T:91:ASP:OD1	2.02	0.59
5:Q:177:ARG:HD3	5:Q:215:MET:SD	2.42	0.59
2:N:806:THR:CG2	2:N:808:ALA:HB3	2.33	0.59
1:M:718:VAL:O	1:M:722:LEU:HD12	2.03	0.59
1:M:399:HIS:CB	1:M:400:PRO:HD3	2.30	0.59
1:A:754:SER:N	1:A:757:ASN:HD22	1.96	0.59
3:O:243:VAL:O	3:O:243:VAL:HG12	2.01	0.59
1:M:253:ASN:ND2	2:N:884:ARG:HD2	2.18	0.59
1:M:804:TYR:OH	2:N:763:GLN:HA	2.03	0.59
1:A:858:ASN:ND2	1:A:858:ASN:C	2.55	0.59
1:A:79:GLY:HA3	1:A:243:PRO:HG3	1.84	0.59
1:A:350:ARG:HB2	2:B:1128:LEU:CD1	2.32	0.59
3:C:43:THR:HG22	3:C:44:LEU:N	2.17	0.59
3:C:8:VAL:CG1	3:C:9:LYS:N	2.66	0.59
1:M:1340:GLY:HA2	5:Q:183:PRO:HD2	1.84	0.59
8:H:27:GLU:HG2	8:H:39:THR:HA	1.85	0.59
1:A:66:LYS:O	1:A:67:CYS:HB2	2.00	0.59
2:B:597:MET:SD	2:B:624:LEU:HD11	2.43	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:1441:PHE:CZ	6:R:89:GLU:HA	2.37	0.59
1:M:1308:THR:HG23	1:M:1310:GLY:H	1.67	0.59
2:B:418:LYS:HE2	2:B:422:LYS:HZ2	1.67	0.59
2:B:327:ARG:NH2	2:B:371:GLU:HG2	2.17	0.59
1:A:1214:GLU:O	1:A:1218:GLN:HG2	2.02	0.59
2:B:638:PHE:HD2	2:B:690:VAL:HG12	1.68	0.59
11:W:50:LEU:HD11	11:W:75:ILE:CD1	2.33	0.59
1:M:335:ARG:HH12	2:N:1206:GLU:CD	2.06	0.59
1:A:1152:ILE:HD12	1:A:1261:LYS:HE3	1.84	0.59
7:G:21:ARG:HD2	7:G:24:GLN:HB2	1.85	0.59
7:S:88:ASP:OD2	7:S:88:ASP:O	2.21	0.59
3:O:89:GLU:O	3:O:90:ASP:HB3	2.01	0.59
1:A:24:PRO:HG2	1:A:25:GLU:OE2	2.01	0.59
8:H:95:TYR:CE2	8:H:97:MET:HG3	2.38	0.59
12:X:34:CYS:SG	12:X:51:CYS:SG	3.01	0.59
7:S:87:VAL:HG21	7:S:103:VAL:HG21	1.83	0.59
2:B:879:ARG:N	2:B:879:ARG:CD	2.65	0.59
12:L:30:ILE:HG22	12:L:31:CYS:N	2.18	0.59
1:M:903:ASN:C	1:M:903:ASN:ND2	2.56	0.59
1:M:427:GLN:HG3	1:M:430:TRP:CE2	2.38	0.59
2:N:766:ARG:HH21	2:N:1020:ARG:HD2	1.67	0.59
1:M:1141:THR:HG23	1:M:1205:LYS:HD3	1.84	0.59
10:V:30:LEU:HD11	10:V:38:ARG:NH1	2.18	0.59
5:E:64:PRO:O	5:E:69:ILE:HD11	2.02	0.59
9:I:44:TYR:CD1	9:I:45:ARG:N	2.71	0.59
1:M:1450:LEU:HD11	6:R:108:PHE:CZ	2.38	0.59
3:O:69:LEU:O	10:V:6:ARG:HD2	2.03	0.58
1:A:66:LYS:HD3	1:A:67:CYS:N	2.18	0.58
4:P:164:ILE:O	4:P:168:LYS:HG2	2.03	0.58
2:B:710:LEU:CA	2:B:733:HIS:HB3	2.20	0.58
2:B:273:LEU:CD2	2:B:360:PHE:HD1	2.16	0.58
1:A:718:VAL:O	1:A:722:LEU:HD12	2.03	0.58
1:A:907:THR:HG23	1:A:908:LEU:N	2.18	0.58
2:B:642:ASP:CA	2:B:649:LYS:HG3	2.32	0.58
1:A:1149:ALA:HB2	9:I:47:GLU:HA	1.84	0.58
1:A:982:THR:HB	1:A:985:ASP:H	1.65	0.58
4:D:25:ALA:HB1	4:D:196:PRO:CG	2.33	0.58
5:E:164:LEU:HD11	5:E:211:TYR:CE1	2.38	0.58
1:A:1399:ARG:HB3	1:A:1408:ILE:HD13	1.84	0.58
9:U:62:ILE:HG12	9:U:62:ILE:O	2.03	0.58
10:V:3:VAL:HG21	10:V:18:TRP:CG	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:CYS:C	1:A:68:GLN:HG3	2.22	0.58
1:M:444:PHE:CE2	1:M:487:MET:CE	2.86	0.58
2:B:807:ARG:HG2	2:B:1045:SER:OG	2.02	0.58
2:B:273:LEU:HD21	2:B:360:PHE:CD1	2.35	0.58
2:N:433:GLN:O	2:N:434:ARG:HG3	2.03	0.58
1:M:317:LYS:O	1:M:318:SER:CB	2.51	0.58
5:Q:29:PHE:O	5:Q:30:ILE:HG13	2.02	0.58
2:B:620:ARG:NH1	9:I:68:LEU:HD21	2.17	0.58
2:B:638:PHE:HB3	2:B:651:LEU:CD2	2.33	0.58
2:B:766:ARG:NH2	2:B:1020:ARG:HD2	2.18	0.58
2:B:842:ASN:ND2	2:B:845:SER:H	2.00	0.58
4:P:13:ARG:O	4:P:15:LEU:N	2.29	0.58
2:N:842:ASN:ND2	2:N:845:SER:OG	2.29	0.58
2:B:262:GLU:HA	2:B:267:ARG:NH2	2.18	0.58
4:P:153:ARG:O	4:P:154:PHE:CD2	2.56	0.58
7:S:1:MET:HG3	7:S:85:GLU:OE2	2.03	0.58
5:Q:212:ARG:HH11	5:Q:212:ARG:HG3	1.68	0.58
2:B:999:MET:HA	2:B:999:MET:CE	2.33	0.58
1:M:684:ALA:O	1:M:687:LYS:HB2	2.04	0.58
1:M:420:ARG:O	1:M:424:ILE:HG13	2.04	0.58
2:N:815:ARG:HD3	2:N:1041:GLU:OE2	2.03	0.58
1:A:1313:LEU:O	1:A:1315:GLU:N	2.36	0.58
2:N:637:LEU:HD22	2:N:741:CYS:O	2.02	0.58
2:N:847:ASP:OD2	11:W:6:ARG:NH2	2.34	0.58
10:V:21:TYR:HB2	10:V:39:LEU:CD1	2.33	0.58
2:B:816:GLU:O	2:B:817:LEU:HD23	2.02	0.58
8:H:84:ALA:CB	8:H:87:ARG:HB2	2.33	0.58
2:N:579:ARG:HA	2:N:589:VAL:HG13	1.85	0.58
1:M:873:MET:C	1:M:1058:VAL:HG23	2.24	0.58
7:S:116:PRO:HD2	7:S:119:LEU:CD2	2.31	0.58
1:M:693:VAL:HG21	1:M:721:PHE:CE1	2.35	0.58
1:M:774:ARG:NH2	1:M:797:LYS:HB2	2.19	0.58
2:N:277:LYS:HG2	2:N:336:ARG:HB3	1.84	0.58
2:B:96:TYR:N	2:B:129:PHE:O	2.31	0.58
2:B:839:MET:HE2	2:B:980:PHE:CD1	2.37	0.58
1:M:382:PRO:HA	1:M:428:TYR:HE2	1.68	0.58
9:I:74:GLU:HB3	9:I:81:ARG:CD	2.33	0.58
3:C:75:MET:HB3	3:C:128:ASN:HB3	1.85	0.58
8:T:128:ASN:ND2	8:T:131:ASN:OD1	2.37	0.58
3:O:32:SER:O	3:O:36:VAL:HG23	2.04	0.58
5:Q:10:SER:O	5:Q:13:TRP:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:15:PRO:HA	7:S:18:PHE:CE1	2.38	0.58
2:B:69:LEU:HB3	2:B:429:PHE:CE1	2.38	0.58
1:A:845:LEU:HD12	1:A:1069:ALA:HB2	1.85	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:HG	2.03	0.58
1:M:1171:GLN:OE1	1:M:1172:LEU:N	2.37	0.58
11:K:82:ASP:OD1	11:K:84:LYS:N	2.36	0.58
5:Q:97:VAL:HG13	5:Q:127:ILE:HD13	1.84	0.58
2:N:957:ASN:O	2:N:959:ASP:N	2.36	0.58
1:M:351:THR:CG2	2:N:1103:ILE:HG13	2.33	0.58
2:N:824:ILE:HG12	10:V:48:ARG:NH1	2.17	0.58
1:M:308:ILE:HG22	1:M:309:ALA:N	2.16	0.58
3:O:238:ILE:HG23	3:O:242:GLN:HB2	1.85	0.58
1:A:157:ASP:OD2	1:A:160:GLN:HG3	2.03	0.58
1:M:472:LEU:HD11	2:N:835:GLN:NE2	2.18	0.58
1:M:89:PRO:HB2	1:M:204:THR:CG2	2.33	0.58
1:M:1118:VAL:O	1:M:1305:VAL:HG13	2.04	0.58
2:N:975:GLN:HG2	2:N:976:ILE:H	1.68	0.58
1:A:219:PHE:CE2	1:A:231:PRO:HD2	2.39	0.58
4:D:161:GLY:O	4:D:165:GLN:HG3	2.03	0.58
2:N:664:THR:HG23	2:N:678:GLU:N	2.19	0.58
8:T:143:LEU:N	8:T:143:LEU:HD12	2.19	0.58
1:A:1225:PHE:CE2	1:A:1227:ILE:HD11	2.39	0.58
1:M:886:ILE:HG23	1:M:887:GLY:N	2.19	0.58
2:B:756:ILE:O	2:B:759:PRO:HD3	2.04	0.58
2:B:527:THR:OG1	2:B:528:PRO:HD2	2.03	0.58
1:M:1166:ASP:HA	1:M:1169:ILE:HD12	1.85	0.58
2:B:865:LYS:HG2	2:B:961:LEU:HD21	1.85	0.58
1:M:344:ARG:HB3	1:M:344:ARG:NH1	2.14	0.58
9:I:92:ARG:HG2	9:I:93:LYS:HE2	1.84	0.58
2:B:205:ILE:N	2:B:205:ILE:HD12	2.18	0.58
2:B:313:MET:O	2:B:316:PRO:HD2	2.03	0.58
2:B:70:ILE:H	2:B:429:PHE:HE1	1.51	0.58
10:V:14:VAL:HG12	10:V:14:VAL:O	2.01	0.58
1:A:886:ILE:HG23	1:A:887:GLY:N	2.19	0.58
1:A:567:LYS:NZ	8:H:43:ASN:HB3	2.18	0.58
8:H:95:TYR:HE2	8:H:97:MET:HG3	1.68	0.58
2:N:120:ARG:NH1	12:X:54:ARG:NH1	2.52	0.58
2:B:102:VAL:HG22	2:B:112:LEU:HD22	1.86	0.58
1:M:500:GLU:OE2	2:N:1145:SER:HB2	2.03	0.58
2:N:361:LEU:HD21	2:N:377:PHE:HD2	1.69	0.58
2:N:244:LEU:HD21	2:N:366:GLN:HE21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:846:ILE:CG2	2:B:974:PRO:HG2	2.32	0.58
1:A:78:PRO:HA	2:B:1201:LYS:HZ2	1.68	0.58
2:B:110:HIS:HB3	12:L:54:ARG:HH22	1.69	0.58
1:A:883:LEU:HD23	1:A:1021:LEU:HD13	1.86	0.58
2:N:46:GLN:HG3	2:N:47:GLN:H	1.68	0.58
2:B:251:ILE:HG22	2:B:251:ILE:O	2.04	0.58
9:I:55:THR:HG23	9:I:100:PHE:CD2	2.38	0.58
8:H:15:VAL:HG22	8:H:26:ILE:HG13	1.86	0.58
4:P:52:LEU:HD21	4:P:147:TYR:CE2	2.38	0.58
4:P:216:ASN:C	4:P:218:GLU:N	2.54	0.58
4:P:25:ALA:HB1	4:P:196:PRO:HG2	1.86	0.58
2:B:613:VAL:HG13	2:B:628:THR:HA	1.85	0.58
8:T:82:PRO:O	8:T:84:ALA:N	2.35	0.58
2:B:916:THR:HB	2:B:935:ARG:HD2	1.86	0.58
1:M:1342:GLU:CG	5:Q:198:ILE:HD13	2.33	0.58
2:B:1161:HIS:NE2	2:B:1175:LEU:HD21	2.19	0.58
7:S:138:THR:HG22	7:S:139:ILE:H	1.69	0.58
7:S:94:CYS:O	7:S:94:CYS:SG	2.59	0.58
1:M:689:LYS:HE2	1:M:721:PHE:CE2	2.39	0.58
7:G:15:PRO:HA	7:G:18:PHE:CE1	2.39	0.58
1:A:1259:MET:CE	1:A:1263:ILE:HG13	2.34	0.58
10:V:16:ASP:OD1	10:V:17:LYS:N	2.36	0.58
2:B:763:GLN:HG2	2:B:765:PRO:HD2	1.84	0.58
5:E:128:PRO:HA	5:E:129:PRO:C	2.23	0.58
1:A:71:GLN:C	1:A:73:GLY:H	2.06	0.58
1:M:67:CYS:C	1:M:68:GLN:HG3	2.24	0.58
12:L:27:LEU:HD13	12:L:37:LYS:HD2	1.86	0.58
2:B:185:THR:H	2:B:188:ASP:HB2	1.69	0.58
2:N:273:LEU:HB2	2:N:276:ILE:HD12	1.86	0.58
2:B:1096:ARG:O	2:B:1097:HIS:CB	2.51	0.58
5:E:212:ARG:HH11	5:E:212:ARG:HG3	1.69	0.58
6:R:75:PRO:O	6:R:77:ASP:O	2.22	0.58
5:E:204:THR:HG23	5:E:205:SER:N	2.19	0.58
5:E:69:ILE:HD12	5:E:69:ILE:H	1.69	0.58
10:J:23:ASN:O	10:J:25:LEU:N	2.37	0.58
1:M:1227:ILE:HG22	1:M:1228:TRP:H	1.69	0.58
12:X:34:CYS:CB	12:X:51:CYS:HG	2.17	0.58
2:N:284:ILE:HD13	2:N:333:PHE:CD2	2.39	0.58
3:O:43:THR:CG2	3:O:44:LEU:N	2.67	0.58
5:Q:50:MET:HG2	5:Q:52:ARG:NH2	2.19	0.58
2:N:98:THR:O	2:N:126:SER:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:293:PRO:HD2	2:N:296:GLU:OE1	2.03	0.58
2:N:1183:LYS:CE	2:N:1183:LYS:N	2.67	0.58
2:N:1084:GLN:NE2	2:N:1084:GLN:N	2.52	0.58
3:C:241:ASP:O	3:C:245:VAL:HG23	2.04	0.58
1:A:492:PRO:HB2	1:A:497:THR:HG22	1.84	0.58
5:E:207:ARG:HH11	5:E:207:ARG:HB3	1.69	0.58
2:B:359:GLU:O	2:B:362:PRO:HD3	2.04	0.58
8:H:40:LEU:HD23	8:H:42:ILE:CD1	2.34	0.57
12:X:47:ARG:HD3	12:X:52:GLY:HA2	1.86	0.57
1:M:34:LYS:HB2	1:M:36:ARG:CZ	2.34	0.57
1:A:1095:THR:HG21	1:A:1112:LYS:HB2	1.86	0.57
3:O:73:GLN:HE21	3:O:75:MET:N	1.99	0.57
2:B:638:PHE:HB3	2:B:651:LEU:HD22	1.86	0.57
7:G:52:ASP:C	7:G:53:ASN:HD22	2.07	0.57
1:M:493:GLN:HE21	1:M:493:GLN:CA	2.16	0.57
2:N:235:SER:O	2:N:236:HIS:HD2	1.87	0.57
1:A:1173:HIS:ND1	1:A:1173:HIS:O	2.37	0.57
1:A:278:THR:O	1:A:278:THR:HG22	2.04	0.57
2:B:1056:SER:HB3	2:B:1066:SER:OG	2.02	0.57
1:A:1437:GLY:O	1:A:1439:GLY:N	2.37	0.57
12:X:60:ARG:HG2	12:X:61:THR:H	1.70	0.57
4:P:130:LEU:HD11	4:P:142:LYS:HA	1.86	0.57
2:B:508:LEU:N	14:2:1:DA:O5'	2.28	0.57
2:B:604:ARG:NH2	2:B:614:SER:HA	2.19	0.57
2:N:880:THR:HG21	2:N:934:LYS:HE3	1.86	0.57
3:C:243:VAL:HG12	3:C:243:VAL:O	2.03	0.57
2:B:129:PHE:HA	2:B:165:VAL:O	2.05	0.57
1:A:470:LEU:CD2	1:A:470:LEU:N	2.67	0.57
4:D:209:ARG:HA	4:D:212:LYS:CE	2.34	0.57
8:T:44:VAL:HG12	8:T:44:VAL:O	2.03	0.57
3:O:37:MET:HE1	3:O:232:VAL:HG22	1.86	0.57
2:B:654:ARG:HG3	2:B:654:ARG:HH11	1.67	0.57
3:C:39:ALA:O	3:C:164:ALA:HB3	2.04	0.57
7:G:137:ILE:CG2	7:G:143:ILE:HD11	2.34	0.57
5:E:78:LEU:HB2	5:E:107:THR:HB	1.86	0.57
4:D:202:ILE:CG2	4:D:207:LEU:HB2	2.34	0.57
9:I:84:VAL:HG13	9:I:84:VAL:O	2.04	0.57
2:N:1172:ILE:O	2:N:1172:ILE:HG22	2.02	0.57
1:A:311:GLN:O	1:A:313:GLN:N	2.36	0.57
4:D:50:LEU:HD11	7:G:4:ILE:HD11	1.85	0.57
1:A:720:ARG:O	1:A:724:GLU:HB3	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:143:LEU:N	8:H:143:LEU:HD12	2.20	0.57
2:B:1115:THR:HG22	2:B:1117:GLN:HB2	1.85	0.57
5:Q:153:HIS:O	5:Q:154:ILE:CG1	2.48	0.57
1:M:549:MET:HE1	1:M:656:TRP:HD1	1.70	0.57
2:N:1008:PRO:HB3	2:N:1087:PHE:HE2	1.69	0.57
2:B:911:ILE:HD11	2:B:941:LEU:CD1	2.33	0.57
2:N:824:ILE:CG1	10:V:48:ARG:HH12	2.15	0.57
3:O:44:LEU:HD21	3:O:159:ALA:HB1	1.86	0.57
8:T:106:GLU:HA	8:T:112:ILE:HD12	1.84	0.57
3:O:11:ARG:HH12	3:O:205:LYS:HZ3	1.51	0.57
2:N:390:LEU:HD13	2:N:392:ARG:NH2	2.19	0.57
1:A:1242:VAL:CG1	1:A:1243:VAL:N	2.67	0.57
2:N:638:PHE:HD2	2:N:690:VAL:HG12	1.69	0.57
1:A:523:ILE:HG13	1:A:622:VAL:HG22	1.86	0.57
1:M:440:ASP:O	1:M:460:VAL:HG23	2.04	0.57
5:E:62:ALA:HB3	5:E:78:LEU:HD22	1.86	0.57
2:N:398:ARG:HB3	2:N:398:ARG:HH11	1.70	0.57
1:A:202:LEU:HB3	1:A:207:ILE:HD11	1.85	0.57
1:M:107:CYS:CA	1:M:171:GLN:HE22	2.17	0.57
2:B:758:PHE:CE1	2:B:1027:ILE:HG22	2.39	0.57
2:N:276:ILE:O	2:N:276:ILE:HG22	2.02	0.57
2:B:470:LYS:C	2:B:472:ALA:N	2.57	0.57
1:A:1438:THR:HG23	6:F:92:ARG:HB2	1.86	0.57
1:A:1340:GLY:HA2	5:E:183:PRO:HD2	1.85	0.57
1:A:335:ARG:O	1:A:339:ASN:HB2	2.03	0.57
3:C:11:ARG:HH12	3:C:205:LYS:HZ3	1.52	0.57
9:I:58:VAL:HG12	9:I:58:VAL:O	2.05	0.57
2:N:773:MET:CE	2:N:985:GLY:HA2	2.35	0.57
1:M:369:SER:HB3	11:W:2:ASN:OD1	2.04	0.57
1:A:378:GLU:OE1	1:A:434:ARG:HD3	2.05	0.57
2:N:282:ILE:O	2:N:286:PHE:HD1	1.88	0.57
2:N:797:TYR:HE1	2:N:854:LEU:HD23	1.69	0.57
2:N:189:LEU:HA	2:N:192:LEU:HD12	1.87	0.57
4:P:154:PHE:HZ	4:P:214:LEU:HD11	1.69	0.57
2:B:31:TRP:CE3	2:B:34:ILE:HD12	2.39	0.57
2:N:806:THR:H	2:N:809:MET:HE3	1.68	0.57
6:R:111:LEU:C	6:R:113:GLY:H	2.07	0.57
3:O:36:VAL:CG2	3:O:251:LEU:HD13	2.35	0.57
5:Q:99:HIS:CE1	5:Q:103:LYS:HG3	2.39	0.57
1:M:993:LEU:HD22	1:M:1046:LEU:CD2	2.34	0.57
3:C:32:SER:O	3:C:36:VAL:HG23	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:V:23:ASN:O	10:V:25:LEU:N	2.37	0.57
2:N:526:GLU:HG3	2:N:771:SER:HB3	1.85	0.57
2:B:998:ASP:OD1	3:C:35:ARG:NH2	2.37	0.57
7:S:136:VAL:HG12	7:S:136:VAL:O	2.04	0.57
5:E:158:SER:O	5:E:162:ARG:HD3	2.04	0.57
2:B:58:THR:O	2:B:62:ILE:HG13	2.04	0.57
1:M:1100:ARG:HH21	1:M:1351:GLU:CG	2.18	0.57
8:H:15:VAL:HG22	8:H:26:ILE:CG1	2.34	0.57
2:N:120:ARG:HH11	12:X:54:ARG:HH11	1.53	0.57
1:M:61:ILE:HG22	1:M:62:ASP:H	1.69	0.57
2:B:552:MET:HA	2:B:552:MET:CE	2.34	0.57
2:N:470:LYS:C	2:N:472:ALA:N	2.57	0.57
2:B:862:GLN:HG2	2:B:963:PHE:CD1	2.36	0.57
2:N:313:MET:SD	2:N:390:LEU:HD21	2.45	0.57
6:F:119:ARG:CG	6:F:119:ARG:NH1	2.68	0.57
1:M:973:ILE:CD1	1:M:1037:LEU:HA	2.34	0.57
4:D:13:ARG:C	4:D:15:LEU:H	2.06	0.57
2:N:211:VAL:O	2:N:480:SER:HA	2.03	0.57
1:A:41:MET:HB2	1:A:48:ALA:O	2.05	0.57
1:M:567:LYS:HZ1	8:T:46:LEU:HB2	1.68	0.57
7:S:125:SER:OG	7:S:128:PRO:HA	2.05	0.57
2:B:315:LYS:N	2:B:316:PRO:HD2	2.19	0.57
2:N:100:PRO:HB2	2:N:180:TYR:HE1	1.69	0.57
1:A:1118:VAL:O	1:A:1305:VAL:HG13	2.05	0.57
1:M:1121:GLU:HB3	1:M:1124:HIS:NE2	2.20	0.57
1:M:129:LYS:O	1:M:130:ASP:CB	2.52	0.57
2:B:29:ASP:HB3	2:B:658:ILE:HD13	1.87	0.57
1:M:979:SER:OG	1:M:980:ASP:N	2.37	0.57
2:N:408:LEU:N	2:N:408:LEU:HD12	2.20	0.57
2:B:570:VAL:HG21	2:B:573:GLN:CD	2.25	0.57
2:N:1177:HIS:HB3	2:N:1179:GLN:NE2	2.19	0.57
4:P:195:ILE:O	4:P:198:LEU:HG	2.03	0.57
2:N:857:ARG:HH21	2:N:942:ARG:NH2	2.03	0.57
2:B:980:PHE:CE2	2:B:1094:ARG:HG3	2.39	0.57
1:A:427:GLN:HG3	1:A:430:TRP:CE2	2.39	0.57
4:D:204:ASP:O	4:D:208:GLU:HB2	2.04	0.57
1:M:523:ILE:CG1	1:M:622:VAL:HG22	2.35	0.57
9:I:111:THR:CG2	9:I:113:ASP:HB2	2.34	0.57
1:A:34:LYS:NZ	1:A:57:ARG:NH2	2.53	0.57
1:M:49:LYS:HE2	1:M:61:ILE:HD12	1.86	0.57
2:N:642:ASP:HA	2:N:649:LYS:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:238:ILE:HD11	3:C:246:ARG:NH1	2.19	0.57
7:S:106:MET:CG	7:S:107:LYS:N	2.67	0.57
1:A:709:THR:HB	1:A:712:GLU:HG3	1.87	0.57
1:A:401:GLY:C	1:A:435:HIS:HD2	2.07	0.57
4:D:144:THR:O	4:D:148:LEU:HB2	2.05	0.57
1:M:1294:PRO:HG2	1:M:1295:THR:HG22	1.86	0.57
2:N:580:VAL:HG22	2:N:624:LEU:HB3	1.87	0.57
2:N:39:ARG:NH2	2:N:665:GLU:CG	2.68	0.57
8:H:7:ASP:O	8:H:8:ASP:HB2	2.05	0.57
2:B:653:VAL:CG2	2:B:689:LEU:HB3	2.34	0.57
1:A:1268:LEU:O	1:A:1269:GLU:HG3	2.05	0.57
1:A:888:GLY:O	1:A:940:ARG:NH2	2.38	0.57
2:B:402:GLY:HA2	2:B:695:ALA:HB3	1.86	0.57
2:N:794:ASN:C	2:N:795:ILE:HD12	2.25	0.57
8:H:81:PRO:HB2	8:H:82:PRO:HD2	1.84	0.57
8:T:4:THR:HG22	8:T:5:LEU:N	2.20	0.57
4:P:209:ARG:HG2	4:P:209:ARG:HH11	1.69	0.57
12:L:52:GLY:O	12:L:53:HIS:C	2.43	0.57
6:F:79:ARG:HG3	6:F:144:GLU:OE1	2.04	0.57
1:M:93:VAL:CG1	1:M:301:ALA:HB1	2.35	0.57
6:F:111:LEU:N	6:F:111:LEU:CD1	2.67	0.57
4:D:130:LEU:C	4:D:132:GLN:H	2.08	0.57
3:O:184:ASN:HD21	3:O:189:THR:HB	1.70	0.57
1:M:152:VAL:HG13	1:M:153:PRO:HD2	1.87	0.57
1:A:556:TRP:CZ2	1:A:558:GLY:HA2	2.40	0.57
2:B:639:ILE:HD11	2:B:691:GLU:HB2	1.87	0.57
1:A:42:ASP:HA	1:A:46:THR:O	2.05	0.56
2:B:618:ASP:CG	2:B:621:GLU:HB3	2.25	0.56
5:E:55:ARG:HG3	5:E:55:ARG:HH11	1.70	0.56
2:B:167:ILE:HA	2:B:450:ALA:HB2	1.87	0.56
2:N:254:LEU:HD23	2:N:381:MET:HE1	1.86	0.56
2:N:313:MET:CE	2:N:386:LEU:HD22	2.35	0.56
10:J:36:LEU:HB2	10:J:47:ARG:HH12	1.70	0.56
5:E:100:ILE:CG2	5:E:105:PHE:HB2	2.35	0.56
1:M:699:ALA:HB3	1:M:701:LEU:HG	1.87	0.56
4:P:155:ARG:CB	4:P:155:ARG:NH1	2.68	0.56
2:B:508:LEU:O	2:B:509:ALA:HB3	2.05	0.56
12:L:55:ILE:HG12	12:L:56:LEU:N	2.13	0.56
7:G:151:ILE:HG12	7:S:114:LEU:HD12	1.86	0.56
1:A:898:ARG:HD2	1:A:899:VAL:H	1.70	0.56
2:N:810:GLU:HB2	2:N:815:ARG:NH2	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1237:ILE:HG22	1:A:1238:ILE:N	2.20	0.56
3:C:70:ILE:HG12	3:C:142:VAL:HG11	1.86	0.56
2:N:1084:GLN:HG2	3:O:201:TRP:CZ2	2.40	0.56
7:S:14:HIS:CD2	7:S:16:SER:H	2.23	0.56
1:A:492:PRO:CB	1:A:497:THR:HG22	2.34	0.56
8:T:104:PHE:CE2	8:T:136:LYS:HG3	2.40	0.56
8:H:104:PHE:CE2	8:H:136:LYS:HG3	2.40	0.56
4:P:155:ARG:NE	4:P:221:TYR:HE1	2.04	0.56
1:A:541:ILE:CD1	1:A:549:MET:HE1	2.22	0.56
3:C:177:GLU:CG	3:C:231:ASN:HB3	2.21	0.56
1:M:1259:MET:HE3	1:M:1263:ILE:HG13	1.86	0.56
2:B:957:ASN:O	2:B:959:ASP:N	2.38	0.56
3:C:148:ARG:N	3:C:151:GLN:HG3	2.19	0.56
1:A:475:THR:CG2	1:A:476:SER:N	2.67	0.56
7:G:128:PRO:O	7:G:138:THR:HG23	2.04	0.56
2:B:336:ARG:HG3	2:B:336:ARG:HH11	1.70	0.56
1:M:500:GLU:OE2	1:M:1438:THR:HG21	2.05	0.56
9:U:50:THR:HG22	9:U:52:ILE:N	2.19	0.56
1:A:382:PRO:HA	1:A:428:TYR:HE2	1.69	0.56
1:A:666:ILE:HD12	1:A:666:ILE:N	2.20	0.56
5:Q:19:VAL:HG22	5:Q:140:LEU:HD12	1.87	0.56
2:N:345:LYS:CE	2:N:349:ILE:HD11	2.35	0.56
4:D:14:ARG:HH12	4:D:16:LYS:NZ	2.04	0.56
5:Q:79:TRP:HE1	5:Q:81:GLU:HB2	1.71	0.56
5:Q:145:THR:HG21	5:Q:187:TYR:CD2	2.40	0.56
6:R:69:LEU:HD13	6:R:71:GLU:OE1	2.04	0.56
1:A:256:GLN:O	1:A:257:ARG:HB2	2.04	0.56
5:Q:22:MET:HE3	5:Q:26:ARG:NE	2.19	0.56
4:P:13:ARG:C	4:P:15:LEU:H	2.07	0.56
1:M:311:GLN:O	1:M:313:GLN:N	2.38	0.56
1:A:441:PRO:HG3	1:A:498:ARG:HB2	1.88	0.56
1:M:786:HIS:N	1:M:786:HIS:CD2	2.73	0.56
1:M:1436:ILE:O	1:M:1437:GLY:C	2.43	0.56
3:O:259:LEU:HD21	11:W:91:CYS:HB3	1.87	0.56
1:M:853:ASP:OD1	1:M:855:THR:CB	2.52	0.56
3:C:148:ARG:H	3:C:151:GLN:HG3	1.70	0.56
2:B:1007:VAL:CG2	2:B:1008:PRO:HD2	2.33	0.56
2:N:434:ARG:O	2:N:436:VAL:HG23	2.05	0.56
2:N:898:LEU:HD13	2:N:952:VAL:HG11	1.87	0.56
1:M:99:ILE:HG23	1:M:211:PHE:CE2	2.41	0.56
4:D:56:ARG:HA	4:D:148:LEU:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:497:ARG:NH2	2:B:775:LYS:HZ3	2.04	0.56
4:D:216:ASN:C	4:D:218:GLU:N	2.57	0.56
1:A:830:LYS:HE3	1:A:1081:LEU:HD12	1.86	0.56
2:B:731:VAL:HG12	2:B:732:SER:N	2.20	0.56
1:A:1316:VAL:HG12	1:A:1316:VAL:O	2.05	0.56
3:O:213:PRO:O	3:O:214:ASN:HB3	2.06	0.56
5:E:112:TYR:CE1	5:E:136:ASN:HA	2.40	0.56
1:A:43:GLU:CG	1:A:46:THR:HB	2.31	0.56
4:P:154:PHE:CE2	4:P:218:GLU:HA	2.40	0.56
2:B:288:ALA:HB1	2:B:331:LEU:CD1	2.32	0.56
2:N:430:ARG:HB3	2:N:434:ARG:NH2	2.21	0.56
2:N:167:ILE:HA	2:N:450:ALA:HB2	1.87	0.56
1:M:710:LEU:HD22	9:U:96:SER:HA	1.88	0.56
2:N:313:MET:HE3	2:N:386:LEU:HD22	1.88	0.56
1:M:1130:GLN:O	1:M:1134:ILE:HG13	2.05	0.56
2:N:848:ARG:HD3	10:V:11:GLY:HA2	1.86	0.56
3:O:174:ALA:O	3:O:175:ALA:HB3	2.06	0.56
4:D:12:ARG:HG2	4:D:12:ARG:HH11	1.71	0.56
1:M:852:TYR:CD1	6:R:136:ARG:HB3	2.40	0.56
2:B:842:ASN:ND2	2:B:845:SER:OG	2.37	0.56
1:A:744:LYS:HG2	1:A:748:MET:CE	2.36	0.56
1:M:962:ARG:O	1:M:964:ILE:N	2.39	0.56
1:A:268:ASP:HB3	1:A:299:HIS:CE1	2.41	0.56
1:A:1142:THR:O	1:A:1145:SER:OG	2.19	0.56
3:C:215:GLU:O	3:C:216:GLY:C	2.44	0.56
2:N:614:SER:HB2	2:N:697:GLU:OE1	2.05	0.56
5:Q:124:VAL:HB	5:Q:125:PRO:HD3	1.87	0.56
2:N:115:GLN:HG2	2:N:193:LYS:CB	2.36	0.56
8:T:59:ILE:CG2	8:T:60:ALA:N	2.64	0.56
2:B:594:ALA:HB2	2:B:617:ARG:HH12	1.71	0.56
2:N:613:VAL:HG13	2:N:628:THR:HA	1.86	0.56
1:M:1195:LEU:HD11	1:M:1267:MET:HE3	1.87	0.56
2:B:805:THR:HG23	2:B:809:MET:SD	2.45	0.56
2:B:240:ILE:HG21	2:B:381:MET:HE1	1.88	0.56
1:M:401:GLY:CA	1:M:435:HIS:HD2	2.19	0.56
1:M:283:GLY:O	1:M:285:PRO:CD	2.53	0.56
5:Q:28:TYR:CE1	5:Q:78:LEU:HD13	2.41	0.56
5:Q:28:TYR:HE1	5:Q:78:LEU:HD13	1.71	0.56
2:N:361:LEU:O	2:N:363:HIS:O	2.24	0.56
3:O:44:LEU:HD21	3:O:159:ALA:CB	2.36	0.56
4:D:155:ARG:NE	4:D:221:TYR:CE1	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:181:ASP:CG	3:C:186:LEU:HD13	2.25	0.56
1:A:1255:GLU:HG2	1:A:1258:HIS:HB2	1.86	0.56
1:M:883:LEU:HD11	1:M:1017:LEU:HD11	1.86	0.56
2:N:486:TYR:N	2:N:486:TYR:CD2	2.71	0.56
11:W:55:LYS:HB2	11:W:81:TYR:CE1	2.41	0.56
2:N:247:GLY:C	2:N:249:ARG:H	2.08	0.56
1:A:195:ASP:O	1:A:196:GLU:HB3	2.05	0.56
2:N:560:GLU:O	2:N:561:TRP:CD1	2.59	0.56
1:M:598:LEU:HD23	8:T:25:ARG:NH1	2.20	0.56
7:G:45:ILE:HA	7:G:78:VAL:HG12	1.87	0.56
2:B:640:VAL:HG12	2:B:640:VAL:O	2.04	0.56
2:B:1180:PHE:HB3	2:B:1191:ILE:HD13	1.87	0.56
1:M:929:LEU:HD21	1:M:983:ILE:HG21	1.87	0.56
2:N:638:PHE:HB3	2:N:651:LEU:HD22	1.88	0.56
6:R:69:LEU:HB3	6:R:71:GLU:CD	2.26	0.56
2:B:434:ARG:O	2:B:436:VAL:HG23	2.05	0.56
11:K:50:LEU:HD11	11:K:75:ILE:CD1	2.35	0.56
1:A:10:PRO:HG2	2:B:1192:TYR:HD2	1.71	0.56
8:H:80:ARG:HD2	8:H:87:ARG:HH22	1.71	0.56
1:M:593:GLU:C	1:M:595:THR:H	2.09	0.56
2:B:865:LYS:NZ	2:B:869:SER:HA	2.21	0.56
2:N:508:LEU:O	2:N:509:ALA:HB3	2.06	0.56
2:B:361:LEU:O	2:B:363:HIS:O	2.24	0.56
2:N:424:LEU:O	2:N:428:ILE:HG13	2.05	0.56
2:B:801:LYS:O	10:J:52:THR:HG23	2.05	0.56
1:M:666:ILE:O	1:M:670:ILE:HD13	2.06	0.56
2:B:842:ASN:HD22	2:B:845:SER:N	2.03	0.56
1:M:993:LEU:HD23	1:M:1022:LEU:HD21	1.88	0.56
1:M:1173:HIS:O	1:M:1173:HIS:ND1	2.39	0.56
1:M:367:PRO:HG2	1:M:370:ILE:HD12	1.88	0.56
5:E:46:TYR:CD2	5:E:58:MET:HG2	2.41	0.56
3:O:179:GLU:HG2	3:O:180:TYR:N	2.21	0.56
3:C:99:LEU:CD2	3:C:99:LEU:N	2.68	0.56
2:B:247:GLY:C	2:B:249:ARG:H	2.09	0.56
1:A:401:GLY:CA	1:A:435:HIS:HD2	2.18	0.56
1:M:672:ASP:CB	1:M:736:ASN:HD21	2.14	0.56
2:N:365:THR:HG21	2:N:370:PHE:CG	2.41	0.56
8:T:101:ALA:HB2	8:T:116:TYR:CE2	2.41	0.56
1:M:535:THR:HG21	1:M:617:VAL:N	2.21	0.56
1:M:981:LEU:CD2	1:M:1039:LYS:HA	2.35	0.56
1:A:1241:ARG:O	1:A:1242:VAL:CB	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:7:ASP:O	8:T:8:ASP:HB2	2.06	0.56
7:G:117:GLN:HE21	7:S:153:GLN:HG3	1.71	0.56
1:M:1207:LEU:HD13	1:M:1273:LEU:HD23	1.88	0.56
5:E:136:ASN:OD1	5:E:138:ALA:N	2.39	0.56
2:B:679:TYR:CE1	2:B:683:SER:HB2	2.41	0.56
1:A:608:ILE:HG13	1:A:613:ILE:HD12	1.88	0.56
1:M:360:GLU:HB2	1:M:363:GLN:HG3	1.88	0.56
7:S:55:ASP:OD1	7:S:57:GLN:HG3	2.06	0.56
2:N:796:LEU:HD21	2:N:821:GLN:HE21	1.70	0.56
4:P:202:ILE:HD13	4:P:207:LEU:HB2	1.87	0.56
4:P:56:ARG:HH11	4:P:56:ARG:HG2	1.71	0.56
7:G:114:LEU:HG	7:G:162:SER:HB3	1.88	0.56
1:M:1277:GLU:C	1:M:1279:ILE:H	2.09	0.56
2:N:227:LYS:H	2:N:395:GLN:CD	2.08	0.56
1:A:427:GLN:O	1:A:428:TYR:C	2.43	0.56
2:N:278:GLN:HG2	2:N:279:ASP:H	1.70	0.56
1:A:547:LEU:HD21	1:A:560:ILE:HD13	1.89	0.56
9:I:74:GLU:HB3	9:I:81:ARG:NE	2.21	0.56
6:F:97:ARG:NH2	6:F:108:PHE:CE1	2.73	0.56
3:C:166:GLU:CG	11:K:10:PHE:HZ	2.19	0.56
1:A:834:THR:HG22	1:A:835:GLY:N	2.21	0.56
5:Q:79:TRP:HB2	5:Q:105:PHE:CE1	2.41	0.56
11:K:93:SER:O	11:K:97:LYS:HG3	2.05	0.56
12:L:68:GLU:CD	12:L:68:GLU:H	2.10	0.56
3:O:215:GLU:O	3:O:216:GLY:C	2.45	0.56
2:B:1167:GLY:HA3	2:B:1216:LEU:H	1.70	0.56
1:M:836:TYR:CE2	1:M:840:ARG:HD2	2.40	0.56
1:A:738:LYS:H	1:A:738:LYS:HD3	1.71	0.56
2:N:1180:PHE:HB3	2:N:1191:ILE:HD13	1.88	0.56
8:H:40:LEU:HD12	8:H:123:MET:CB	2.35	0.55
12:X:52:GLY:O	12:X:53:HIS:C	2.44	0.55
4:P:154:PHE:HE1	4:P:163:VAL:HG11	1.71	0.55
1:M:65:LEU:O	1:M:66:LYS:C	2.43	0.55
2:B:300:HIS:O	2:B:303:TYR:HE2	1.88	0.55
8:T:81:PRO:HB3	8:T:82:PRO:HD2	1.86	0.55
3:C:248:ILE:CD1	11:K:101:LEU:HD22	2.36	0.55
2:B:240:ILE:HG23	2:B:254:LEU:HB3	1.88	0.55
1:M:1220:PHE:O	1:M:1221:LYS:HB2	2.05	0.55
2:B:126:SER:CB	2:B:172:ILE:HD11	2.36	0.55
4:P:71:LYS:CG	4:P:74:GLN:HE21	2.19	0.55
2:B:430:ARG:CB	2:B:430:ARG:HH11	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:547:LEU:HD22	11:W:58:PHE:CE1	2.42	0.55
2:N:766:ARG:NH2	2:N:1020:ARG:HD3	2.20	0.55
1:A:993:LEU:HD21	1:A:1049:ILE:HG21	1.87	0.55
4:D:12:ARG:NH1	4:D:12:ARG:HG2	2.19	0.55
1:M:852:TYR:CD2	1:M:1060:PRO:CB	2.89	0.55
2:B:899:ILE:CG2	2:B:949:VAL:HG21	2.36	0.55
7:S:21:ARG:HD2	7:S:24:GLN:HB2	1.89	0.55
2:N:398:ARG:CB	2:N:398:ARG:HH11	2.18	0.55
8:H:51:ALA:O	8:H:52:GLN:HB2	2.05	0.55
1:M:23:SER:HB3	1:M:233:TRP:CZ2	2.42	0.55
1:A:855:THR:CG2	1:A:857:ARG:HG3	2.36	0.55
8:H:123:MET:HG2	8:H:124:ARG:N	2.20	0.55
12:X:30:ILE:HG22	12:X:31:CYS:N	2.21	0.55
1:A:65:LEU:O	1:A:66:LYS:C	2.44	0.55
4:P:130:LEU:C	4:P:132:GLN:H	2.10	0.55
4:P:155:ARG:CB	4:P:155:ARG:HH11	2.19	0.55
1:M:42:ASP:HB3	1:M:45:GLN:HA	1.87	0.55
2:B:102:VAL:HG13	2:B:958:GLN:HE21	1.71	0.55
1:A:148:CYS:HB3	1:A:167:CYS:O	2.05	0.55
2:B:549:THR:CG2	2:B:550:ASP:N	2.68	0.55
2:B:911:ILE:HG21	2:B:966:VAL:HG11	1.88	0.55
1:M:768:GLN:HG2	1:M:816:HIS:CA	2.34	0.55
1:M:427:GLN:O	1:M:428:TYR:C	2.44	0.55
11:W:47:ARG:HD3	11:W:59:ALA:O	2.06	0.55
2:N:39:ARG:HH21	2:N:665:GLU:CG	2.19	0.55
5:Q:204:THR:HG23	5:Q:205:SER:N	2.22	0.55
5:Q:16:PHE:CE2	5:Q:20:LYS:HE2	2.41	0.55
10:J:36:LEU:HD12	10:J:47:ARG:NH1	2.20	0.55
2:N:235:SER:C	2:N:236:HIS:HD2	2.09	0.55
4:P:15:LEU:O	4:P:17:LYS:HG3	2.06	0.55
2:N:48:LEU:HD23	2:N:173:MET:SD	2.47	0.55
2:B:950:ASP:HB3	2:B:967:ARG:O	2.07	0.55
15:6:5:C:H2'	15:6:6:A:C8	2.40	0.55
7:S:9:LEU:HD12	7:S:10:ASN:H	1.71	0.55
2:N:118:ARG:HH11	2:N:204:ILE:HD11	1.70	0.55
1:M:42:ASP:HA	1:M:46:THR:O	2.07	0.55
1:M:61:ILE:HG22	1:M:62:ASP:N	2.21	0.55
9:U:59:VAL:C	9:U:61:ASP:H	2.10	0.55
1:M:567:LYS:HZ3	8:T:43:ASN:HB3	1.69	0.55
12:L:26:THR:HG23	12:L:62:LYS:NZ	2.20	0.55
5:Q:56:LYS:NZ	5:Q:84:ASP:H	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:666:ILE:O	1:A:670:ILE:HD13	2.06	0.55
2:B:235:SER:C	2:B:236:HIS:HD2	2.10	0.55
2:B:327:ARG:HH22	2:B:371:GLU:HG2	1.71	0.55
2:B:789:MET:CE	2:B:953:LEU:HD22	2.36	0.55
2:N:637:LEU:CD2	2:N:742:GLU:HA	2.36	0.55
2:N:347:LYS:HG3	2:N:348:ARG:H	1.72	0.55
10:V:27:GLU:C	10:V:29:GLU:H	2.10	0.55
1:A:528:LEU:HD23	1:A:751:SER:HA	1.89	0.55
3:O:116:LYS:HD3	3:O:140:ASN:HA	1.89	0.55
5:Q:207:ARG:HH11	5:Q:207:ARG:HB3	1.71	0.55
3:C:22:LEU:HD22	3:C:230:MET:HE1	1.87	0.55
5:Q:128:PRO:HA	5:Q:129:PRO:C	2.26	0.55
1:A:1291:VAL:HG22	1:A:1292:PRO:HD2	1.88	0.55
8:H:11:GLN:C	8:H:28:ALA:HB1	2.26	0.55
3:O:51:VAL:HG22	3:O:155:LEU:CD2	2.35	0.55
1:M:351:THR:HG21	2:N:1103:ILE:HG13	1.89	0.55
12:X:27:LEU:O	12:X:28:LYS:HB2	2.05	0.55
1:M:824:LEU:O	1:M:827:THR:HG22	2.06	0.55
3:C:174:ALA:O	3:C:175:ALA:HB3	2.07	0.55
1:A:1420:ASP:O	1:A:1421:CYS:HB2	2.06	0.55
13:4:15:DG:C2'	13:4:16:DT:H71	2.37	0.55
4:D:220:LEU:HG	4:D:221:TYR:H	1.71	0.55
1:A:1239:ARG:HH12	1:A:1241:ARG:HH12	1.54	0.55
3:O:36:VAL:HG21	3:O:251:LEU:HB2	1.89	0.55
4:P:4:SER:O	4:P:5:THR:CB	2.53	0.55
2:N:300:HIS:O	2:N:303:TYR:HE2	1.89	0.55
2:B:258:LEU:HG	2:B:258:LEU:O	2.05	0.55
2:B:1124:ARG:NH1	15:3:2:G:OP2	2.37	0.55
9:I:86:PHE:CE1	9:I:100:PHE:HB2	2.41	0.55
2:N:378:LEU:O	2:N:382:ILE:HG13	2.06	0.55
1:A:89:PRO:O	1:A:204:THR:HG21	2.07	0.55
1:A:115:LEU:HG	1:A:142:CYS:HB3	1.89	0.55
1:A:154:SER:HB3	1:A:162:VAL:HG21	1.88	0.55
2:B:531:GLN:HG2	2:B:532:ALA:H	1.69	0.55
4:P:155:ARG:NE	4:P:221:TYR:CE1	2.73	0.55
1:M:41:MET:HB2	1:M:49:LYS:HA	1.86	0.55
2:B:918:ILE:HG21	2:B:935:ARG:NH2	2.21	0.55
3:O:148:ARG:NH1	10:V:64:ASN:HA	2.22	0.55
1:A:903:ASN:HD22	1:A:905:ASP:H	1.48	0.55
2:B:244:LEU:HD11	2:B:366:GLN:HE22	1.70	0.55
2:N:422:LYS:HA	2:N:425:THR:HB	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:858:ASN:ND2	1:M:858:ASN:C	2.54	0.55
3:O:75:MET:HB3	3:O:128:ASN:HB3	1.88	0.55
1:M:711:ARG:NH1	9:U:95:THR:HB	2.21	0.55
1:M:1111:MET:HE2	1:M:1114:PRO:HA	1.87	0.55
1:M:1095:THR:CG2	1:M:1112:LYS:HB2	2.33	0.55
2:B:345:LYS:HG2	2:B:346:GLU:N	2.21	0.55
2:N:308:TRP:HB2	9:U:2:THR:HG22	1.89	0.55
2:B:657:HIS:CE1	2:B:689:LEU:HD11	2.42	0.55
1:A:1171:GLN:OE1	1:A:1172:LEU:HG	2.06	0.55
2:B:1001:PHE:CE1	2:B:1073:TYR:HB2	2.40	0.55
2:N:461:LEU:HD12	2:N:461:LEU:N	2.21	0.55
1:A:1191:TRP:CD1	1:A:1256:GLU:HB2	2.42	0.55
1:M:1454:MET:HG3	1:M:1454:MET:O	2.07	0.55
2:N:174:LEU:HD22	2:N:202:TYR:CE1	2.41	0.55
1:M:598:LEU:O	1:M:599:SER:C	2.44	0.55
2:B:115:GLN:HG2	2:B:193:LYS:HB2	1.89	0.55
5:Q:192:ARG:NH1	5:Q:192:ARG:HG3	2.22	0.55
1:M:535:THR:O	1:M:575:LYS:HE3	2.05	0.55
2:B:836:GLU:O	2:B:837:ASP:HB2	2.05	0.55
9:U:8:ARG:HG3	9:U:34:TYR:CE1	2.42	0.55
1:M:347:PHE:HE2	1:M:375:THR:CG2	2.19	0.55
1:M:512:VAL:HG12	1:M:512:VAL:O	2.07	0.55
11:W:23:PRO:HA	11:W:31:VAL:HG13	1.89	0.55
1:A:699:ALA:HB3	1:A:701:LEU:HG	1.89	0.55
1:M:2:VAL:CG1	2:N:1157:ALA:O	2.54	0.55
1:A:28:ARG:HH21	1:A:238:CYS:HB2	1.71	0.55
11:K:12:LEU:HD12	11:K:37:LYS:CG	2.37	0.55
2:N:731:VAL:HG12	2:N:732:SER:N	2.20	0.55
8:H:12:VAL:HG13	8:H:26:ILE:HG12	1.87	0.55
8:H:47:PHE:HB3	8:H:95:TYR:HD1	1.71	0.55
8:H:89:LEU:HB2	8:H:91:ASP:CG	2.26	0.55
1:A:60:SER:OG	1:A:61:ILE:N	2.39	0.55
4:P:56:ARG:HD3	4:P:149:THR:HA	1.89	0.55
1:A:207:ILE:HG22	1:A:211:PHE:CE2	2.42	0.55
12:L:38:LEU:O	12:L:39:SER:HB3	2.06	0.55
1:A:1329:THR:CG2	1:A:1331:SER:H	2.13	0.55
1:M:1308:THR:HG21	1:M:1310:GLY:O	2.07	0.55
1:A:1444:MET:CG	7:G:60:ARG:HA	2.34	0.55
2:B:165:VAL:HG11	2:B:448:ILE:CD1	2.37	0.55
1:A:382:PRO:CA	1:A:428:TYR:HE2	2.20	0.55
2:N:364:ILE:CG1	2:N:585:VAL:HG13	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:22:LEU:HD11	11:W:101:LEU:HD11	1.87	0.55
3:C:73:GLN:HE21	3:C:75:MET:CB	2.19	0.55
2:B:860:MET:HG2	2:B:861:ASP:H	1.71	0.55
8:H:18:GLY:O	8:H:19:ARG:HB2	2.07	0.55
1:A:639:PRO:HG2	1:A:640:GLN:NE2	2.22	0.55
1:M:1155:ASP:OD2	1:M:1161:THR:HA	2.07	0.55
12:L:49:LYS:O	12:L:50:ASP:CB	2.54	0.55
2:B:579:ARG:HA	2:B:589:VAL:HG13	1.89	0.55
1:A:1308:THR:HG21	1:A:1310:GLY:O	2.07	0.55
7:G:139:ILE:CG2	7:G:140:LYS:HG3	2.31	0.55
1:A:779:PHE:HE1	1:A:785:PRO:HD3	1.65	0.55
2:B:66:ASP:OD2	2:B:422:LYS:HG2	2.07	0.55
1:M:145:LYS:HA	1:M:145:LYS:CE	2.35	0.55
13:1:15:DG:C2'	13:1:16:DT:H71	2.37	0.55
1:A:960:ILE:HA	1:A:963:ILE:HG22	1.88	0.55
4:P:8:PHE:HD2	7:S:6:ASP:O	1.90	0.55
8:T:11:GLN:C	8:T:28:ALA:HB1	2.26	0.55
1:A:337:ARG:HD3	2:B:1132:GLU:CD	2.26	0.55
2:N:770:GLN:OE1	2:N:983:ARG:HA	2.06	0.55
1:M:836:TYR:CZ	1:M:840:ARG:HD2	2.42	0.55
1:A:323:LYS:H	1:A:323:LYS:HD2	1.72	0.55
2:B:969:ARG:NH1	3:C:61:GLU:OE1	2.39	0.55
1:M:1348:LEU:O	1:M:1352:VAL:HG23	2.07	0.55
2:B:611:PRO:HB3	2:B:685:LEU:HD11	1.88	0.55
1:A:106:VAL:HG12	1:A:107:CYS:N	2.22	0.55
7:G:138:THR:CG2	7:G:139:ILE:H	2.19	0.55
1:M:1438:THR:HB	2:N:1144:ALA:HB3	1.87	0.55
7:S:34:VAL:HG13	7:S:45:ILE:HD13	1.89	0.55
2:N:1197:PRO:O	2:N:1200:ALA:N	2.37	0.55
9:I:50:THR:HG21	9:I:52:ILE:HG12	1.87	0.55
1:M:1403:GLU:O	13:4:16:DT:OP1	2.24	0.55
1:A:1313:LEU:HD23	1:A:1338:VAL:HG21	1.88	0.55
2:N:38:PHE:CD1	2:N:811:TYR:CD2	2.93	0.55
2:N:652:LYS:HB3	2:N:689:LEU:HD23	1.89	0.55
2:N:637:LEU:HD12	2:N:693:ILE:HD12	1.88	0.55
2:B:637:LEU:HD11	2:B:703:ILE:HD13	1.89	0.55
6:F:69:LEU:HB3	6:F:71:GLU:CD	2.27	0.55
1:M:7:SER:HB3	2:N:1193:GLN:NE2	2.22	0.55
5:E:99:HIS:CE1	5:E:103:LYS:HG3	2.42	0.55
3:C:114:TYR:CG	3:C:140:ASN:HB3	2.41	0.55
3:O:114:TYR:CG	3:O:140:ASN:HB3	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:19:ASP:HB3	9:I:24:ARG:HG2	1.88	0.55
1:M:1329:THR:HG22	1:M:1335:ILE:HG13	1.88	0.55
2:B:1063:GLY:O	3:C:202:PRO:HG2	2.06	0.55
1:M:1263:ILE:O	1:M:1267:MET:HG3	2.07	0.55
1:M:850:VAL:HG21	1:M:1058:VAL:HG11	1.88	0.55
10:J:52:THR:HG22	10:J:52:THR:O	2.07	0.55
5:Q:64:PRO:HB2	5:Q:69:ILE:HD11	1.89	0.55
4:D:146:GLN:CA	4:D:149:THR:HG22	2.37	0.55
1:M:973:ILE:O	1:M:973:ILE:HG22	2.05	0.55
5:Q:111:VAL:HG12	5:Q:137:GLU:HG2	1.87	0.55
5:E:156:LEU:HA	5:E:160:GLU:OE1	2.07	0.55
5:Q:55:ARG:HA	5:Q:58:MET:HG3	1.88	0.55
1:A:555:ASP:O	1:A:556:TRP:C	2.46	0.55
5:E:155:ARG:HG2	5:E:155:ARG:HH11	1.71	0.55
2:N:402:GLY:HA2	2:N:695:ALA:HB3	1.88	0.55
3:O:35:ARG:HH12	11:W:41:THR:H	1.55	0.55
2:B:1162:ILE:HD13	2:B:1194:ILE:HD13	1.88	0.55
2:B:526:GLU:OE1	2:B:752:ALA:HB3	2.07	0.55
7:G:30:LEU:HD22	7:G:72:VAL:HG11	1.89	0.55
11:W:93:SER:O	11:W:97:LYS:HG3	2.06	0.55
8:H:59:ILE:CG2	8:H:60:ALA:N	2.63	0.54
4:P:207:LEU:O	4:P:207:LEU:HD12	2.06	0.54
1:A:549:MET:CE	1:A:656:TRP:HD1	2.20	0.54
2:N:640:VAL:O	2:N:640:VAL:HG12	2.05	0.54
1:M:470:LEU:HD23	1:M:470:LEU:N	2.21	0.54
2:N:613:VAL:HG22	2:N:628:THR:HA	1.89	0.54
1:M:503:GLN:HE21	6:R:90:ARG:NH2	1.98	0.54
2:N:90:ILE:HD12	2:N:432:MET:HE1	1.89	0.54
10:V:52:THR:O	10:V:52:THR:HG22	2.07	0.54
2:N:273:LEU:CB	2:N:276:ILE:HD12	2.37	0.54
5:E:179:GLN:HB2	5:E:182:ASP:HB2	1.89	0.54
1:M:265:LYS:HE2	1:M:268:ASP:OD2	2.07	0.54
1:M:475:THR:CG2	1:M:476:SER:N	2.69	0.54
2:N:351:TYR:CE1	2:N:355:ILE:HD11	2.42	0.54
1:M:1120:LEU:HD22	1:M:1125:ALA:HA	1.89	0.54
7:G:117:GLN:HE22	7:S:154:VAL:HG22	1.69	0.54
2:N:789:MET:HE2	2:N:953:LEU:HD22	1.88	0.54
1:M:492:PRO:C	1:M:493:GLN:HE21	2.11	0.54
2:N:185:THR:H	2:N:188:ASP:HB2	1.71	0.54
1:M:1450:LEU:HD11	6:R:108:PHE:HZ	1.71	0.54
1:A:1436:ILE:O	1:A:1437:GLY:C	2.45	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:556:TRP:CH2	1:A:558:GLY:HA2	2.42	0.54
9:U:10:CYS:SG	9:U:32:CYS:HB3	2.47	0.54
2:B:664:THR:HG1	2:B:678:GLU:N	2.04	0.54
1:M:1152:ILE:HD12	1:M:1261:LYS:HE3	1.89	0.54
4:P:126:ILE:HD13	4:P:145:MET:HE3	1.89	0.54
2:N:604:ARG:NH1	2:N:691:GLU:OE2	2.38	0.54
7:G:111:THR:HG22	7:G:114:LEU:HD22	1.88	0.54
8:T:15:VAL:HG22	8:T:26:ILE:CG1	2.36	0.54
12:L:61:THR:HG22	12:L:63:ARG:H	1.72	0.54
1:A:353:ILE:HD13	1:A:487:MET:HG3	1.89	0.54
12:X:26:THR:CG2	12:X:27:LEU:H	2.03	0.54
1:A:1116:LEU:HG	1:A:1308:THR:HB	1.89	0.54
5:Q:192:ARG:HG3	5:Q:192:ARG:HH11	1.71	0.54
1:A:289:ILE:HG22	1:A:290:GLU:N	2.23	0.54
2:B:848:ARG:HA	3:C:69:LEU:HD21	1.87	0.54
2:N:936:ASP:OD1	2:N:937:ALA:N	2.40	0.54
1:M:475:THR:HG23	1:M:476:SER:N	2.22	0.54
1:M:1205:LYS:O	1:M:1207:LEU:HG	2.07	0.54
4:D:134:THR:CG2	4:D:135:GLY:N	2.69	0.54
2:B:398:ARG:NH1	2:B:398:ARG:CB	2.70	0.54
3:O:114:TYR:CD2	3:O:140:ASN:HB3	2.43	0.54
2:N:1147:LEU:HD22	2:N:1151:LEU:HD22	1.88	0.54
1:M:441:PRO:HG3	1:M:498:ARG:HB2	1.89	0.54
2:N:1167:GLY:HA3	2:N:1216:LEU:H	1.70	0.54
1:A:1362:TYR:CD1	1:A:1363:VAL:N	2.75	0.54
8:T:58:THR:HG22	8:T:59:ILE:N	2.20	0.54
4:P:193:THR:HG23	4:P:194:LEU:HD23	1.88	0.54
1:M:41:MET:HB2	1:M:48:ALA:O	2.08	0.54
12:L:53:HIS:O	12:L:55:ILE:HD13	2.08	0.54
11:K:47:ARG:O	11:K:47:ARG:HD2	2.08	0.54
1:M:1015:VAL:HG12	1:M:1015:VAL:O	2.07	0.54
7:S:51:TYR:C	7:S:51:TYR:CD2	2.81	0.54
10:V:9:SER:HB2	10:V:45:CYS:HB2	1.90	0.54
1:A:385:ILE:HG22	1:A:386:ASP:N	2.21	0.54
1:A:593:GLU:C	1:A:595:THR:H	2.11	0.54
2:N:114:PRO:HG2	2:N:115:GLN:H	1.73	0.54
12:X:47:ARG:CG	12:X:48:CYS:H	2.20	0.54
1:A:69:THR:O	1:A:70:CYS:C	2.45	0.54
1:M:71:GLN:C	1:M:73:GLY:H	2.10	0.54
9:I:59:VAL:C	9:I:61:ASP:H	2.11	0.54
1:A:351:THR:HG22	2:B:1103:ILE:CA	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:489:LEU:HD12	1:M:490:HIS:N	2.22	0.54
2:B:34:ILE:HG12	2:B:542:MET:CE	2.37	0.54
1:M:541:ILE:HG22	1:M:546:VAL:CG2	2.37	0.54
1:M:868:TYR:HD2	1:M:1058:VAL:HG21	1.72	0.54
1:M:289:ILE:HG22	1:M:290:GLU:N	2.23	0.54
2:N:766:ARG:NH2	2:N:1020:ARG:HH11	2.03	0.54
2:N:123:THR:HG23	2:N:205:ILE:HA	1.89	0.54
4:D:209:ARG:HA	4:D:212:LYS:HE3	1.89	0.54
1:A:534:LEU:HG	1:A:534:LEU:O	2.07	0.54
1:M:1072:ILE:O	1:M:1075:PRO:HG2	2.07	0.54
2:N:789:MET:HE1	2:N:953:LEU:HD22	1.90	0.54
2:N:467:GLY:CA	2:N:475:SER:HB3	2.38	0.54
1:A:518:LYS:HE2	1:A:624:SER:O	2.08	0.54
12:L:66:GLN:HG2	12:L:67:PHE:N	2.22	0.54
1:M:153:PRO:HB3	1:M:161:LEU:HD22	1.89	0.54
7:S:55:ASP:HB3	7:S:73:LYS:HB2	1.89	0.54
2:N:950:ASP:HB3	2:N:967:ARG:O	2.08	0.54
1:M:1142:THR:O	1:M:1145:SER:OG	2.21	0.54
4:P:220:LEU:HG	4:P:221:TYR:H	1.73	0.54
2:B:797:TYR:O	10:J:1:MET:HG2	2.07	0.54
12:X:26:THR:C	12:X:27:LEU:HD23	2.27	0.54
12:L:31:CYS:HB2	12:L:48:CYS:SG	2.47	0.54
1:M:549:MET:CE	1:M:656:TRP:HD1	2.21	0.54
7:S:112:LYS:HB3	7:S:113:HIS:ND1	2.22	0.54
2:N:129:PHE:HA	2:N:165:VAL:O	2.08	0.54
2:N:859:TYR:CZ	2:N:941:LEU:HD12	2.43	0.54
5:Q:98:ILE:HG22	5:Q:102:GLU:CG	2.37	0.54
5:Q:64:PRO:O	5:Q:69:ILE:HD11	2.07	0.54
2:N:315:LYS:N	2:N:316:PRO:HD2	2.23	0.54
6:F:110:ASP:O	6:F:123:LYS:HE3	2.07	0.54
8:H:130:ARG:H	8:H:130:ARG:HD3	1.70	0.54
7:G:115:MET:HG2	7:G:163:ILE:HD11	1.89	0.54
9:U:17:ARG:HH21	9:U:30:ARG:CZ	2.20	0.54
5:E:79:TRP:HB2	5:E:105:PHE:CE1	2.43	0.54
10:J:25:LEU:O	10:J:29:GLU:HA	2.08	0.54
1:M:1206:ASP:O	1:M:1274:ARG:NH2	2.40	0.54
1:A:883:LEU:HD11	1:A:1017:LEU:HD11	1.88	0.54
8:H:76:THR:O	8:H:77:ARG:HB2	2.07	0.54
1:A:438:ASP:O	1:A:439:ASN:HB2	2.05	0.54
1:M:1317:MET:O	1:M:1322:ILE:HD11	2.08	0.54
12:X:58:LYS:O	12:X:58:LYS:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:198:ILE:CD1	5:Q:212:ARG:HG3	2.38	0.54
6:F:99:LEU:O	6:F:103:MET:HG2	2.08	0.54
2:B:1160:VAL:HG12	2:B:1161:HIS:N	2.23	0.54
7:S:129:SER:OG	7:S:130:TYR:N	2.36	0.54
2:N:276:ILE:HA	2:N:336:ARG:O	2.07	0.54
1:M:283:GLY:O	1:M:285:PRO:HD3	2.06	0.54
3:C:25:VAL:HG12	3:C:26:ASP:N	2.23	0.54
1:A:1120:LEU:O	1:A:1323:ASP:HB2	2.07	0.54
1:M:1121:GLU:HG3	1:M:1122:PRO:HD2	1.90	0.54
2:N:597:MET:HA	2:N:597:MET:HE3	1.88	0.54
4:D:7:THR:O	4:D:7:THR:HG23	2.08	0.54
2:B:866:TYR:CG	2:B:870:ILE:HB	2.42	0.54
2:B:211:VAL:HG23	2:B:483:LEU:HB2	1.89	0.54
2:N:185:THR:O	2:N:188:ASP:HB2	2.07	0.54
1:M:35:ILE:CD1	1:M:241:VAL:HG11	2.37	0.54
1:A:962:ARG:O	1:A:964:ILE:N	2.41	0.54
3:C:104:PHE:HE2	3:C:150:GLY:HA2	1.73	0.54
11:K:55:LYS:HB2	11:K:81:TYR:CE1	2.43	0.54
8:H:40:LEU:HD11	8:H:142:LEU:CD2	2.38	0.54
8:H:89:LEU:HB2	8:H:91:ASP:OD1	2.08	0.54
1:A:34:LYS:HG3	1:A:36:ARG:NH2	2.22	0.54
4:P:50:LEU:HD22	4:P:54:GLU:HG2	1.89	0.54
1:M:468:PHE:CE2	1:M:489:LEU:HD23	2.43	0.54
12:X:38:LEU:O	12:X:39:SER:HB3	2.08	0.54
1:M:779:PHE:HE1	1:M:785:PRO:HD3	1.69	0.54
1:M:770:VAL:HA	1:M:822:GLU:OE1	2.08	0.54
5:E:177:ARG:HB3	5:E:215:MET:HG2	1.90	0.54
5:Q:69:ILE:H	5:Q:69:ILE:HD12	1.70	0.54
2:N:650:GLU:HG3	2:N:654:ARG:HH21	1.73	0.54
2:N:684:LEU:O	2:N:689:LEU:HB2	2.08	0.54
5:E:17:ARG:O	5:E:21:GLU:HG3	2.08	0.54
1:M:130:ASP:OD2	1:M:133:LYS:HG3	2.08	0.54
11:K:21:ILE:HG23	11:K:31:VAL:HG11	1.89	0.54
1:A:332:LYS:HG2	1:A:333:GLU:HG2	1.90	0.54
1:A:105:CYS:SG	1:A:139:TRP:HA	2.48	0.54
3:O:88:CYS:SG	3:O:91:HIS:HA	2.48	0.54
2:N:616:ILE:N	2:N:616:ILE:HD12	2.21	0.54
1:A:598:LEU:O	1:A:599:SER:C	2.46	0.54
3:O:67:LEU:HD11	3:O:155:LEU:HD13	1.89	0.54
2:N:114:PRO:CG	2:N:181:LEU:HD11	2.25	0.54
4:P:220:LEU:HD23	4:P:221:TYR:C	2.28	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:1:MET:H1	10:J:57:ILE:N	2.05	0.54
1:A:1155:ASP:OD2	1:A:1161:THR:HA	2.07	0.54
1:M:565:ILE:HG23	1:M:567:LYS:CG	2.38	0.54
5:E:124:VAL:CG1	5:E:132:ILE:HB	2.21	0.54
3:C:148:ARG:NH1	10:J:64:ASN:HA	2.22	0.54
1:A:981:LEU:CD2	1:A:1039:LYS:HA	2.33	0.54
1:M:710:LEU:H	1:M:710:LEU:CD1	2.18	0.54
1:M:95:PHE:O	1:M:96:ILE:C	2.45	0.54
2:N:205:ILE:CD1	2:N:205:ILE:N	2.71	0.54
1:A:535:THR:HG21	1:A:617:VAL:N	2.23	0.54
1:A:973:ILE:HD11	1:A:1041:ALA:CB	2.38	0.54
1:M:335:ARG:NH1	2:N:1206:GLU:CD	2.61	0.54
9:I:55:THR:HG23	9:I:100:PHE:HD2	1.72	0.54
2:N:526:GLU:OE1	2:N:752:ALA:HB3	2.08	0.54
1:A:115:LEU:CD1	1:A:142:CYS:HB3	2.37	0.54
1:M:1445:ILE:H	1:M:1445:ILE:HD12	1.73	0.54
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.90	0.54
1:A:979:SER:OG	1:A:980:ASP:N	2.39	0.54
1:M:556:TRP:CH2	1:M:558:GLY:HA2	2.43	0.54
1:M:555:ASP:O	1:M:556:TRP:C	2.46	0.54
2:B:47:GLN:O	2:B:173:MET:HE1	2.07	0.54
9:I:73:ARG:HH12	9:I:112:SER:HB3	1.72	0.54
3:O:56:THR:HG22	3:O:57:VAL:N	2.21	0.54
2:B:955:THR:HG1	12:L:55:ILE:HA	1.72	0.54
1:A:1421:CYS:HA	1:A:1426:GLU:HG3	1.89	0.54
1:M:385:ILE:CD1	1:M:426:LEU:HB2	2.37	0.54
1:A:381:THR:HG22	1:A:383:TYR:H	1.73	0.54
2:B:33:VAL:HG21	2:B:638:PHE:HZ	1.71	0.54
1:M:1011:GLN:NE2	1:M:1015:VAL:CG2	2.71	0.54
9:I:8:ARG:HG3	9:I:34:TYR:HE1	1.71	0.54
1:A:512:VAL:O	1:A:512:VAL:HG12	2.07	0.54
3:C:44:LEU:HD21	3:C:159:ALA:CB	2.38	0.54
6:R:119:ARG:HH11	6:R:119:ARG:HG3	1.73	0.54
12:X:43:THR:O	12:X:43:THR:HG22	2.08	0.54
1:M:610:GLY:O	1:M:611:GLN:NE2	2.41	0.54
2:N:995:ARG:HB3	2:N:997:GLU:OE2	2.07	0.54
2:N:531:GLN:CG	2:N:532:ALA:H	2.20	0.54
3:O:66:ARG:NH2	10:V:5:VAL:HG23	2.23	0.54
4:P:56:ARG:NH2	4:P:155:ARG:HG2	2.21	0.54
1:M:565:ILE:HG21	1:M:567:LYS:HE2	1.90	0.54
12:L:55:ILE:HD13	12:L:55:ILE:N	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:148:ARG:HD3	3:C:149:LYS:HG3	1.89	0.54
2:N:999:MET:HA	2:N:999:MET:CE	2.38	0.54
2:N:805:THR:HG23	2:N:809:MET:SD	2.48	0.54
2:N:167:ILE:HG21	2:N:424:LEU:CD2	2.38	0.54
2:B:642:ASP:HA	2:B:649:LYS:HG3	1.90	0.54
11:W:51:LEU:HD13	11:W:59:ALA:HB3	1.90	0.54
2:B:898:LEU:HD13	2:B:952:VAL:CG1	2.38	0.54
5:E:144:ILE:HG13	5:E:145:THR:H	1.70	0.54
1:M:697:ALA:HA	1:M:702:LEU:HG	1.90	0.54
1:M:963:ILE:HD11	1:M:1048:ASN:HB2	1.89	0.54
10:J:23:ASN:C	10:J:25:LEU:N	2.60	0.54
3:O:35:ARG:NH1	11:W:41:THR:H	2.06	0.54
1:M:438:ASP:O	1:M:439:ASN:HB2	2.07	0.54
8:H:15:VAL:HG21	8:H:49:VAL:O	2.07	0.53
8:H:4:THR:HG22	8:H:5:LEU:N	2.23	0.53
2:N:642:ASP:HB3	2:N:649:LYS:CD	2.38	0.53
12:L:29:TYR:O	12:L:30:ILE:HG13	2.08	0.53
2:B:859:TYR:CZ	2:B:941:LEU:HD12	2.43	0.53
2:N:1115:THR:HG22	2:N:1117:GLN:HG3	1.90	0.53
1:M:537:ARG:NH1	8:T:120:GLY:O	2.41	0.53
2:N:661:LEU:HD11	2:N:684:LEU:HD11	1.90	0.53
1:A:838:GLN:O	1:A:842:VAL:HG23	2.08	0.53
4:P:35:LEU:N	4:P:35:LEU:CD1	2.70	0.53
1:M:1141:THR:OG1	1:M:1205:LYS:HD3	2.08	0.53
1:M:281:HIS:C	1:M:282:ASN:HD22	2.11	0.53
1:A:129:LYS:O	1:A:130:ASP:HB2	2.08	0.53
2:N:398:ARG:CB	2:N:398:ARG:NH1	2.71	0.53
1:M:1313:LEU:O	1:M:1315:GLU:N	2.41	0.53
1:M:920:LEU:HD23	1:M:921:GLY:N	2.23	0.53
1:A:597:LEU:HD12	1:A:597:LEU:N	2.23	0.53
1:A:567:LYS:HZ1	8:H:46:LEU:HB2	1.73	0.53
1:M:598:LEU:HA	8:T:122:LEU:HD13	1.90	0.53
2:N:809:MET:O	2:N:812:LEU:N	2.40	0.53
6:R:103:MET:HE1	7:S:66:GLY:H	1.71	0.53
6:F:103:MET:HE2	7:G:66:GLY:N	2.21	0.53
1:A:714:PHE:O	1:A:718:VAL:HG23	2.08	0.53
2:N:273:LEU:O	2:N:276:ILE:HB	2.08	0.53
1:M:381:THR:CG2	1:M:382:PRO:HD2	2.38	0.53
3:C:97:VAL:HG21	3:C:129:ILE:HG23	1.91	0.53
4:D:29:LEU:H	4:D:29:LEU:CD2	2.22	0.53
2:B:1004:GLU:OE1	10:J:42:LYS:HE2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:1:MET:HE2	7:G:1:MET:C	2.29	0.53
3:O:184:ASN:ND2	3:O:189:THR:HB	2.22	0.53
1:M:1215:ARG:NH1	1:M:1272:THR:O	2.40	0.53
2:B:308:TRP:HB2	9:I:2:THR:HG22	1.89	0.53
1:M:1450:LEU:HG	1:M:1450:LEU:O	2.08	0.53
2:N:1177:HIS:HB3	2:N:1179:GLN:HE21	1.73	0.53
7:G:106:MET:HG2	7:G:107:LYS:N	2.23	0.53
2:N:473:MET:CE	2:N:474:SER:HA	2.38	0.53
8:T:76:THR:O	8:T:77:ARG:HB2	2.07	0.53
4:P:146:GLN:O	4:P:147:TYR:C	2.46	0.53
1:M:41:MET:O	1:M:42:ASP:C	2.46	0.53
2:N:640:VAL:O	2:N:641:GLU:C	2.46	0.53
8:T:38:LEU:HD12	8:T:39:THR:N	2.24	0.53
2:B:705:MET:HA	2:B:705:MET:CE	2.38	0.53
2:B:885:MET:HA	2:B:936:ASP:HB2	1.91	0.53
2:B:809:MET:O	2:B:812:LEU:N	2.40	0.53
2:N:66:ASP:OD2	2:N:422:LYS:HG2	2.08	0.53
1:A:687:LYS:HE2	1:A:795:GLU:OE2	2.09	0.53
1:A:907:THR:CG2	1:A:908:LEU:N	2.71	0.53
5:E:180:ARG:HB2	5:E:215:MET:OXT	2.07	0.53
10:J:48:ARG:NH1	10:J:48:ARG:HG2	2.23	0.53
9:I:74:GLU:HB3	9:I:81:ARG:HD2	1.89	0.53
1:M:337:ARG:CD	2:N:1132:GLU:OE1	2.56	0.53
2:B:1004:GLU:HG3	10:J:42:LYS:HZ3	1.71	0.53
4:D:4:SER:O	4:D:5:THR:CB	2.55	0.53
13:4:25:DG:C2'	13:4:26:DT:H72	2.38	0.53
13:4:25:DG:H2''	13:4:26:DT:H73	1.90	0.53
5:E:79:TRP:HE1	5:E:81:GLU:HB2	1.73	0.53
12:X:66:GLN:HG2	12:X:67:PHE:N	2.23	0.53
7:G:102:GLN:HG3	7:G:106:MET:O	2.09	0.53
1:A:573:SER:O	1:A:576:GLN:HB2	2.07	0.53
1:M:1412:ALA:HA	1:M:1417:GLU:OE2	2.09	0.53
11:K:107:THR:O	11:K:111:LEU:HG	2.09	0.53
1:A:567:LYS:HZ1	8:H:43:ASN:HB3	1.73	0.53
8:H:58:THR:HG22	8:H:59:ILE:N	2.21	0.53
1:M:853:ASP:O	1:M:854:ASN:HB2	2.07	0.53
10:V:53:HIS:HD2	10:V:54:VAL:H	1.55	0.53
1:A:353:ILE:HD13	1:A:487:MET:CG	2.39	0.53
8:T:130:ARG:HD3	8:T:130:ARG:H	1.72	0.53
2:N:277:LYS:HG3	2:N:336:ARG:HG2	1.90	0.53
2:N:393:LYS:HA	2:N:393:LYS:CE	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:106:CYS:O	9:U:107:SER:HB2	2.09	0.53
2:N:313:MET:CE	2:N:390:LEU:HD11	2.38	0.53
2:N:1001:PHE:CZ	2:N:1073:TYR:HB2	2.43	0.53
10:V:14:VAL:CG1	10:V:14:VAL:O	2.56	0.53
1:A:493:GLN:HE21	1:A:493:GLN:N	2.06	0.53
1:A:370:ILE:CG2	1:A:374:LEU:HD12	2.38	0.53
6:R:101:ILE:HD13	6:R:120:ILE:CG2	2.39	0.53
2:N:190:TYR:CZ	2:N:196:PRO:HG3	2.44	0.53
1:M:756:ILE:O	1:M:759:ALA:HB3	2.08	0.53
8:T:15:VAL:HG21	8:T:49:VAL:O	2.08	0.53
1:M:108:MET:CE	1:M:210:ILE:HD12	2.38	0.53
9:I:50:THR:CG2	9:I:51:ASN:H	2.16	0.53
1:A:697:ALA:CB	1:A:702:LEU:HD11	2.36	0.53
2:B:39:ARG:HG2	2:B:39:ARG:HH11	1.73	0.53
7:G:53:ASN:ND2	7:G:53:ASN:N	2.55	0.53
1:A:1141:THR:HA	1:A:1205:LYS:NZ	2.24	0.53
10:J:27:GLU:C	10:J:29:GLU:H	2.12	0.53
2:N:398:ARG:HB2	2:N:398:ARG:NH1	2.24	0.53
3:C:104:PHE:HD2	3:C:105:GLY:N	2.06	0.53
1:M:720:ARG:O	1:M:720:ARG:HG2	2.08	0.53
1:A:597:LEU:HD23	8:H:103:LYS:HD2	1.89	0.53
1:A:1277:GLU:C	1:A:1279:ILE:H	2.12	0.53
7:G:139:ILE:HG23	7:G:140:LYS:H	1.72	0.53
2:N:90:ILE:CD1	2:N:432:MET:SD	2.96	0.53
1:M:399:HIS:O	1:M:400:PRO:C	2.41	0.53
2:N:1065:GLN:NE2	2:N:1066:SER:N	2.56	0.53
1:A:868:TYR:CE1	1:A:1064:VAL:CG1	2.92	0.53
1:M:913:LEU:HD13	1:M:981:LEU:O	2.09	0.53
2:N:1161:HIS:NE2	2:N:1175:LEU:HD21	2.23	0.53
2:B:766:ARG:HH21	2:B:1020:ARG:CD	2.19	0.53
1:A:679:ILE:HG23	1:A:729:ALA:HB1	1.90	0.53
1:A:961:ARG:HG2	1:A:965:GLN:NE2	2.24	0.53
1:M:35:ILE:HD13	1:M:241:VAL:HG11	1.89	0.53
2:N:696:GLU:O	2:N:699:GLU:HB2	2.09	0.53
2:N:53:GLN:HG2	2:N:547:VAL:HG22	1.90	0.53
10:J:30:LEU:HD21	10:J:38:ARG:HH12	1.74	0.53
1:M:1148:ILE:HD11	1:M:1198:ASP:HA	1.89	0.53
3:C:22:LEU:HD22	3:C:230:MET:CE	2.37	0.53
1:M:198:GLU:O	1:M:198:GLU:HG2	2.07	0.53
1:A:1025:ARG:HG3	1:A:1025:ARG:HH11	1.72	0.53
1:A:347:PHE:HE2	1:A:375:THR:HG22	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:221:TYR:CD2	8:H:46:LEU:HD22	2.44	0.53
4:P:190:GLU:O	4:P:193:THR:HG22	2.09	0.53
1:M:69:THR:O	1:M:70:CYS:C	2.47	0.53
1:M:541:ILE:CD1	1:M:549:MET:HE1	2.30	0.53
1:A:901:LEU:H	1:A:926:GLN:CD	2.12	0.53
2:B:427:ASP:HA	2:B:430:ARG:HG3	1.90	0.53
3:O:44:LEU:CD2	3:O:159:ALA:HB1	2.39	0.53
3:O:252:GLN:HE21	11:W:95:ILE:HG22	1.74	0.53
3:O:252:GLN:CG	11:W:95:ILE:HG23	2.35	0.53
6:F:108:PHE:O	6:F:129:LYS:HD3	2.07	0.53
10:V:51:LEU:HD12	10:V:51:LEU:O	2.09	0.53
2:N:1110:PRO:HB2	2:N:1119:VAL:HG11	1.91	0.53
1:M:518:LYS:HB2	1:M:519:PRO:HD2	1.91	0.53
1:A:252:PHE:HB2	1:A:256:GLN:CD	2.28	0.53
10:V:23:ASN:C	10:V:25:LEU:N	2.61	0.53
2:N:798:TYR:HE2	3:O:62:PHE:CE2	2.27	0.53
1:M:323:LYS:HD2	1:M:323:LYS:N	2.23	0.53
3:C:193:TYR:CD1	3:C:193:TYR:C	2.81	0.53
1:M:1107:VAL:O	1:M:1107:VAL:HG12	2.08	0.53
3:C:172:PRO:O	3:C:235:VAL:HG23	2.09	0.53
1:M:186:LYS:NZ	1:M:197:PRO:HD3	2.23	0.53
4:P:12:ARG:HD3	4:P:14:ARG:HG2	1.90	0.53
2:N:807:ARG:HD3	2:N:1043:ASP:OD1	2.09	0.53
7:G:126:ASN:C	7:G:126:ASN:HD22	2.12	0.53
2:N:801:LYS:O	10:V:52:THR:HG23	2.09	0.53
2:B:100:PRO:HD2	2:B:180:TYR:CE1	2.43	0.53
2:N:887:HIS:CD2	2:N:887:HIS:N	2.75	0.53
2:N:878:GLN:HB2	2:N:879:ARG:NH1	2.24	0.53
1:M:310:GLY:O	1:M:312:PRO:CD	2.56	0.53
7:G:35:GLU:CG	7:G:48:VAL:HG23	2.38	0.53
9:U:34:TYR:HD2	9:U:35:VAL:N	2.05	0.53
3:C:181:ASP:OD1	3:C:186:LEU:HD13	2.09	0.53
1:M:493:GLN:HE21	1:M:493:GLN:N	2.06	0.53
1:A:675:THR:HG21	1:A:736:ASN:HB2	1.90	0.53
1:M:967:ALA:HA	1:M:1044:TRP:CZ3	2.43	0.53
3:C:251:LEU:O	3:C:255:VAL:HG23	2.08	0.53
2:B:171:PRO:HD2	2:B:457:LEU:CD1	2.39	0.53
2:N:1004:GLU:HG3	10:V:42:LYS:NZ	2.24	0.53
4:P:150:ASN:HB2	4:P:151:PHE:CD1	2.44	0.53
1:M:62:ASP:O	1:M:64:ASN:N	2.41	0.53
10:J:3:VAL:HG21	10:J:18:TRP:CG	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:37:PHE:HE2	2:B:542:MET:HA	1.74	0.53
2:B:552:MET:HA	2:B:552:MET:HE2	1.91	0.53
3:C:133:ILE:HD12	3:C:237:SER:N	2.24	0.53
2:B:806:THR:HG21	2:B:808:ALA:HB3	1.91	0.53
2:B:288:ALA:CB	2:B:331:LEU:HD12	2.32	0.53
1:A:1394:THR:HG21	1:A:1398:MET:SD	2.49	0.53
2:B:640:VAL:O	2:B:641:GLU:C	2.46	0.53
2:N:878:GLN:O	2:N:879:ARG:C	2.47	0.53
1:M:524:VAL:HG12	1:M:525:GLN:N	2.22	0.53
2:B:860:MET:HG2	2:B:861:ASP:N	2.24	0.53
3:C:67:LEU:HA	3:C:70:ILE:HD12	1.91	0.53
3:C:245:VAL:HG13	11:K:102:LYS:HG3	1.91	0.53
2:N:225:VAL:HA	2:N:237:VAL:O	2.08	0.53
1:A:186:LYS:NZ	1:A:197:PRO:HD3	2.24	0.53
9:I:16:PRO:HB3	9:I:27:PHE:CE2	2.44	0.53
3:O:45:ALA:HA	3:O:72:LEU:HD12	1.89	0.53
1:A:326:ARG:HG3	1:A:1406:VAL:HG21	1.91	0.53
15:3:5:C:H2'	15:3:6:A:C8	2.42	0.53
1:M:598:LEU:CD1	8:T:124:ARG:HB2	2.40	0.53
2:B:291:ILE:HD13	2:B:300:HIS:NE2	2.24	0.53
2:N:763:GLN:HG2	2:N:765:PRO:CD	2.34	0.53
1:M:709:THR:CG2	1:M:710:LEU:N	2.72	0.53
1:A:1403:GLU:O	13:1:16:DT:OP1	2.27	0.53
4:D:155:ARG:HH21	4:D:221:TYR:HD1	1.56	0.53
3:O:10:ILE:HG22	3:O:11:ARG:O	2.09	0.53
3:C:166:GLU:HG3	11:K:10:PHE:HZ	1.74	0.53
5:Q:112:TYR:OH	5:Q:136:ASN:HB2	2.09	0.53
1:M:1018:PHE:O	1:M:1021:LEU:HB3	2.08	0.53
1:M:313:GLN:O	1:M:314:ALA:C	2.47	0.53
2:B:269:ILE:HD11	2:B:386:LEU:HD21	1.90	0.53
1:M:1139:GLU:O	1:M:1139:GLU:HG2	2.07	0.53
1:M:608:ILE:HG13	1:M:613:ILE:HD12	1.91	0.53
2:B:594:ALA:HA	2:B:617:ARG:NH1	2.24	0.52
1:M:1259:MET:O	1:M:1259:MET:HE3	2.10	0.52
8:T:84:ALA:C	8:T:86:ASP:N	2.61	0.52
7:G:7:LEU:HD13	7:G:45:ILE:HD11	1.89	0.52
1:M:316:GLN:HE21	1:M:317:LYS:CE	2.17	0.52
1:M:253:ASN:ND2	2:N:935:ARG:HB2	2.24	0.52
2:B:1190:ASP:C	2:B:1191:ILE:HG13	2.30	0.52
2:B:309:GLN:CD	9:I:52:ILE:HD11	2.30	0.52
2:N:620:ARG:HH12	9:U:68:LEU:HD21	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:811:TYR:H	2:N:811:TYR:HD1	1.57	0.52
3:C:51:VAL:HG22	3:C:155:LEU:CD2	2.37	0.52
1:A:1254:ALA:O	1:A:1255:GLU:CB	2.57	0.52
6:R:100:GLN:NE2	7:S:61:ILE:HD13	2.24	0.52
1:M:982:THR:HB	1:M:985:ASP:H	1.72	0.52
2:B:90:ILE:CD1	2:B:432:MET:SD	2.97	0.52
2:N:803:LEU:HD13	2:N:1032:SER:O	2.09	0.52
9:U:69:PRO:HB2	9:U:85:PHE:CZ	2.44	0.52
2:N:680:THR:OG1	2:N:681:TRP:N	2.40	0.52
1:A:1345:ARG:HG2	1:A:1372:VAL:HG12	1.91	0.52
1:A:1349:TYR:CD2	1:A:1349:TYR:C	2.82	0.52
8:H:40:LEU:HD12	8:H:123:MET:HG3	1.91	0.52
1:A:62:ASP:O	1:A:64:ASN:N	2.42	0.52
4:P:146:GLN:HA	4:P:149:THR:HG22	1.91	0.52
2:N:733:HIS:O	2:N:735:ALA:N	2.41	0.52
2:B:193:LYS:NZ	12:L:32:ALA:HB1	2.24	0.52
1:A:1114:PRO:O	1:A:1311:VAL:HG23	2.09	0.52
1:A:7:SER:OG	2:B:1161:HIS:CE1	2.62	0.52
2:N:546:SER:OG	2:N:631:GLY:N	2.43	0.52
1:M:670:ILE:HG23	1:M:805:LEU:HD21	1.91	0.52
2:B:427:ASP:HA	2:B:430:ARG:CD	2.39	0.52
3:O:242:GLN:OE1	3:O:242:GLN:HA	2.08	0.52
1:A:537:ARG:NH1	8:H:120:GLY:O	2.42	0.52
8:H:135:LEU:HB2	8:H:137:GLN:HE21	1.75	0.52
1:A:946:VAL:HG12	1:A:947:PHE:CD2	2.44	0.52
3:C:67:LEU:HD11	3:C:155:LEU:HD13	1.91	0.52
1:A:1433:MET:CE	7:G:63:PRO:HB2	2.40	0.52
5:Q:156:LEU:HA	5:Q:160:GLU:OE1	2.09	0.52
1:M:523:ILE:HG12	1:M:622:VAL:HG22	1.90	0.52
3:O:179:GLU:HG2	3:O:180:TYR:H	1.74	0.52
1:M:556:TRP:CZ2	1:M:558:GLY:HA2	2.44	0.52
2:N:216:GLU:HA	2:N:406:LEU:HD23	1.92	0.52
8:H:95:TYR:HE2	8:H:97:MET:CG	2.22	0.52
2:N:954:VAL:O	12:X:55:ILE:O	2.26	0.52
2:B:618:ASP:O	2:B:622:LYS:N	2.42	0.52
1:M:1209:MET:CE	1:M:1236:LEU:HB3	2.38	0.52
2:N:1056:SER:HB3	2:N:1066:SER:OG	2.09	0.52
6:F:74:ILE:HD12	6:F:144:GLU:HG2	1.90	0.52
7:S:45:ILE:O	7:S:45:ILE:HG22	2.10	0.52
2:B:235:SER:OG	2:B:236:HIS:CD2	2.63	0.52
1:M:929:LEU:HD21	1:M:983:ILE:CG2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1015:VAL:CG1	1:A:1019:CYS:SG	2.97	0.52
2:B:225:VAL:HA	2:B:237:VAL:O	2.09	0.52
11:W:21:ILE:HG22	11:W:31:VAL:HG11	1.92	0.52
7:S:21:ARG:HD2	7:S:24:GLN:HB3	1.89	0.52
2:B:1073:TYR:CE2	2:B:1080:LYS:HG2	2.44	0.52
2:N:479:VAL:O	2:N:480:SER:HB3	2.08	0.52
2:B:498:THR:HG22	2:B:537:LYS:H	1.75	0.52
5:E:178:ILE:HG22	5:E:213:ILE:O	2.09	0.52
2:B:875:GLU:O	2:B:877:PRO:HD3	2.09	0.52
5:Q:114:ASN:O	5:Q:115:ASN:CB	2.47	0.52
2:B:278:GLN:HG2	2:B:279:ASP:N	2.22	0.52
2:N:167:ILE:HD12	2:N:167:ILE:N	2.24	0.52
1:M:794:PRO:C	1:M:796:SER:H	2.12	0.52
5:Q:30:ILE:HG23	5:Q:34:GLU:HG2	1.91	0.52
7:S:27:LYS:O	7:S:31:LEU:HG	2.09	0.52
7:G:13:LEU:HD21	7:G:17:PHE:CB	2.39	0.52
2:B:1187:ASN:OD1	2:B:1188:LYS:N	2.42	0.52
4:P:27:LEU:HG	4:P:197:SER:HB3	1.90	0.52
1:A:993:LEU:HD22	1:A:1046:LEU:HD22	1.91	0.52
1:A:1148:ILE:HG12	1:A:1198:ASP:HB2	1.90	0.52
7:G:1:MET:CE	7:G:80:LYS:H	2.22	0.52
1:M:347:PHE:HE2	1:M:375:THR:HG23	1.74	0.52
2:B:1079:LYS:HA	3:C:27:LEU:HD21	1.90	0.52
7:G:88:ASP:HB3	7:G:144:ARG:HA	1.91	0.52
2:N:95:ILE:HG13	2:N:130:VAL:HG22	1.91	0.52
1:A:549:MET:SD	1:A:577:ILE:HD12	2.49	0.52
2:N:521:LEU:HB3	2:N:633:VAL:HG11	1.91	0.52
2:B:733:HIS:O	2:B:735:ALA:N	2.42	0.52
12:L:58:LYS:HG2	12:L:58:LYS:O	2.10	0.52
1:M:470:LEU:CD2	1:M:470:LEU:N	2.73	0.52
2:N:418:LYS:HE2	2:N:422:LYS:HZ1	1.74	0.52
2:N:801:LYS:O	10:V:52:THR:CG2	2.58	0.52
1:A:852:TYR:CE1	6:F:136:ARG:HG2	2.45	0.52
11:K:51:LEU:HD13	11:K:59:ALA:HB3	1.92	0.52
3:O:18:VAL:HG23	3:O:240:VAL:HB	1.90	0.52
1:A:335:ARG:NH1	2:B:1202:LEU:HD13	2.24	0.52
1:A:497:THR:HG23	2:B:1146:PHE:HD1	1.75	0.52
3:O:193:TYR:CD1	3:O:193:TYR:C	2.82	0.52
1:A:208:LEU:HD21	1:A:212:LYS:HE3	1.90	0.52
2:B:916:THR:HB	2:B:935:ARG:CG	2.38	0.52
4:P:14:ARG:CB	4:P:14:ARG:NH1	2.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:911:ILE:HG22	2:N:966:VAL:HG21	1.92	0.52
2:B:203:PHE:N	2:B:203:PHE:CD1	2.78	0.52
1:M:1081:LEU:CD1	1:M:1097:GLY:HA3	2.36	0.52
2:N:63:ILE:HD12	2:N:421:PHE:CE2	2.45	0.52
1:A:1141:THR:OG1	1:A:1205:LYS:HD3	2.10	0.52
2:B:616:ILE:HD12	2:B:625:LYS:O	2.10	0.52
2:B:684:LEU:O	2:B:689:LEU:HB2	2.10	0.52
11:W:55:LYS:HB2	11:W:81:TYR:CD1	2.45	0.52
1:A:964:ILE:O	1:A:967:ALA:HB3	2.09	0.52
2:N:473:MET:HE1	2:N:474:SER:HA	1.92	0.52
8:H:106:GLU:HA	8:H:112:ILE:HD12	1.92	0.52
2:B:519:TRP:C	2:B:519:TRP:CD1	2.83	0.52
2:B:95:ILE:HG13	2:B:130:VAL:CG2	2.39	0.52
2:N:527:THR:OG1	2:N:528:PRO:HD2	2.10	0.52
1:M:458:HIS:NE2	1:M:478:TYR:OH	2.33	0.52
5:Q:121:MET:C	5:Q:123:LEU:H	2.12	0.52
1:A:567:LYS:HB3	8:H:95:TYR:HA	1.90	0.52
2:N:102:VAL:CG2	2:N:112:LEU:HD13	2.39	0.52
1:M:57:ARG:O	1:M:68:GLN:HG2	2.09	0.52
1:M:72:GLU:HB3	1:M:76:GLU:HG2	1.91	0.52
2:N:579:ARG:HG2	2:N:579:ARG:NH1	2.23	0.52
5:Q:190:LEU:C	5:Q:191:LYS:HG2	2.30	0.52
1:M:820:GLY:O	1:M:822:GLU:N	2.43	0.52
1:M:503:GLN:NE2	6:R:90:ARG:NH2	2.53	0.52
6:R:82:THR:HG22	6:R:84:TYR:N	2.15	0.52
2:B:758:PHE:CE1	2:B:1027:ILE:CG2	2.93	0.52
2:N:273:LEU:CD2	2:N:360:PHE:HD1	2.22	0.52
1:M:710:LEU:N	1:M:710:LEU:HD12	2.21	0.52
9:I:50:THR:HG22	9:I:52:ILE:N	2.24	0.52
13:4:16:DT:H5'	13:4:16:DT:C6	2.37	0.52
2:N:686:ASN:C	2:N:688:GLY:H	2.13	0.52
1:A:317:LYS:O	1:A:318:SER:HB3	2.10	0.52
2:B:837:ASP:OD2	2:B:1020:ARG:NH2	2.43	0.52
2:B:1084:GLN:NE2	2:B:1084:GLN:H	2.07	0.52
9:U:19:ASP:CB	9:U:24:ARG:HG2	2.38	0.52
2:B:398:ARG:HB3	2:B:398:ARG:HH11	1.74	0.52
2:N:1177:HIS:CB	2:N:1179:GLN:NE2	2.73	0.52
15:6:5:C:H2'	15:6:6:A:H8	1.75	0.52
7:S:49:LEU:HD11	7:S:77:VAL:HG23	1.91	0.52
2:B:486:TYR:N	2:B:486:TYR:CD2	2.76	0.52
8:T:4:THR:HG22	8:T:6:PHE:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:41:MET:O	1:A:50:ILE:HG13	2.10	0.52
1:A:34:LYS:HZ2	1:A:57:ARG:HH22	1.58	0.52
4:P:193:THR:CG2	4:P:194:LEU:N	2.72	0.52
1:M:107:CYS:HB2	1:M:114:LEU:HD21	1.92	0.52
7:S:139:ILE:HG12	7:S:140:LYS:CG	2.40	0.52
13:1:23:BRU:C5'	13:1:23:BRU:H6	2.35	0.52
1:M:1237:ILE:HG22	1:M:1238:ILE:N	2.23	0.52
2:B:801:LYS:O	10:J:52:THR:CG2	2.58	0.52
1:A:399:HIS:CB	1:A:400:PRO:CD	2.87	0.52
2:N:357:GLN:CD	2:N:368:GLU:HA	2.30	0.52
1:A:265:LYS:HA	1:A:265:LYS:CE	2.39	0.52
1:A:1120:LEU:CD2	1:A:1125:ALA:HA	2.40	0.52
1:A:870:GLU:HB2	5:E:204:THR:HG21	1.91	0.52
6:F:97:ARG:HD3	6:F:130:ILE:HG23	1.92	0.52
2:B:39:ARG:HG2	2:B:39:ARG:NH1	2.25	0.52
4:P:5:THR:O	4:P:5:THR:HG23	2.09	0.52
5:Q:112:TYR:CE1	5:Q:136:ASN:HA	2.45	0.52
5:Q:195:VAL:HG22	5:Q:213:ILE:HG13	1.91	0.52
13:1:25:DG:C2'	13:1:26:DT:H72	2.39	0.52
1:M:1149:ALA:CB	9:U:47:GLU:HA	2.40	0.52
1:A:1225:PHE:HE2	1:A:1227:ILE:HD11	1.73	0.52
2:N:466:TRP:HA	2:N:466:TRP:CE3	2.44	0.52
1:M:1437:GLY:O	1:M:1439:GLY:N	2.43	0.52
3:O:35:ARG:NH1	11:W:41:THR:OG1	2.43	0.52
2:B:526:GLU:HG3	2:B:771:SER:HB3	1.90	0.52
1:M:117:GLU:HA	1:M:123:ARG:HG3	1.90	0.52
4:D:120:GLU:OE1	4:D:120:GLU:O	2.27	0.52
1:M:682:THR:HG23	1:M:728:LYS:HE3	1.90	0.52
2:B:601:ARG:HD3	2:B:605:ARG:CZ	2.40	0.52
2:N:552:MET:HA	2:N:552:MET:HE3	1.91	0.52
9:U:111:THR:CG2	9:U:113:ASP:HB2	2.39	0.52
8:H:11:GLN:O	8:H:28:ALA:HB1	2.10	0.52
8:H:59:ILE:O	8:H:60:ALA:HB3	2.10	0.52
4:P:185:CYS:SG	4:P:191:ALA:HA	2.50	0.52
2:N:707:PRO:O	2:N:708:GLU:O	2.27	0.52
3:C:66:ARG:CZ	10:J:2:ILE:HG21	2.40	0.52
8:T:26:ILE:HD12	8:T:42:ILE:HD13	1.92	0.52
2:B:707:PRO:HG2	2:B:708:GLU:N	2.23	0.52
2:B:807:ARG:NH1	2:B:807:ARG:HB3	2.24	0.52
2:B:911:ILE:HG22	2:B:966:VAL:HG21	1.90	0.52
13:1:23:BRU:H2''	13:1:24:DG:O5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:126:SER:HB3	2:B:172:ILE:HD11	1.92	0.52
2:B:98:THR:O	2:B:126:SER:HB2	2.09	0.52
1:A:873:MET:C	1:A:1058:VAL:HG23	2.30	0.52
1:M:148:CYS:HB3	1:M:167:CYS:O	2.09	0.52
6:F:101:ILE:HD13	6:F:120:ILE:HG22	1.90	0.52
2:B:638:PHE:CD2	2:B:690:VAL:HG12	2.44	0.52
8:H:44:VAL:CG1	8:H:48:PRO:HA	2.40	0.52
3:C:70:ILE:HD11	3:C:144:ILE:HG12	1.92	0.52
8:T:11:GLN:O	8:T:28:ALA:HB1	2.09	0.52
10:V:30:LEU:HD22	10:V:34:THR:HB	1.92	0.52
9:U:17:ARG:HG2	9:U:28:GLU:HG2	1.92	0.52
1:M:1202:MET:CE	1:M:1212:VAL:HG21	2.40	0.52
3:O:112:ASN:HB3	3:O:114:TYR:CE1	2.45	0.52
1:M:1315:GLU:C	1:M:1317:MET:H	2.13	0.52
7:G:153:GLN:HG2	7:G:154:VAL:HG23	1.92	0.52
1:M:1299:VAL:HG12	1:M:1300:LYS:N	2.25	0.52
1:A:41:MET:O	1:A:42:ASP:C	2.48	0.52
2:B:1115:THR:HG22	2:B:1117:GLN:CB	2.40	0.52
2:B:31:TRP:CZ3	2:B:34:ILE:HD12	2.44	0.52
1:A:898:ARG:HD2	1:A:899:VAL:N	2.24	0.52
1:M:754:SER:N	1:M:757:ASN:HD22	1.98	0.52
13:1:16:DT:H5'	13:1:16:DT:C6	2.37	0.52
1:A:390:GLN:O	1:A:394:ASN:HB2	2.10	0.52
5:E:48:ASP:CG	5:E:49:SER:N	2.59	0.52
2:N:653:VAL:HG23	2:N:689:LEU:HB3	1.92	0.52
2:B:43:LEU:HD23	2:B:43:LEU:N	2.25	0.52
1:M:222:LEU:O	1:M:224:PHE:HD1	1.92	0.52
2:B:345:LYS:CG	2:B:346:GLU:N	2.72	0.52
1:A:1149:ALA:CB	9:I:47:GLU:HA	2.40	0.52
1:A:826:ASP:O	1:A:830:LYS:HB2	2.09	0.52
13:4:25:DG:H2''	13:4:26:DT:H72	1.92	0.52
9:I:15:TYR:CD1	9:I:15:TYR:N	2.76	0.52
3:C:220:ASP:OD2	3:C:223:ALA:HB2	2.10	0.52
2:B:1098:MET:HE3	2:B:1101:ASP:OD2	2.10	0.52
8:H:4:THR:HG22	8:H:6:PHE:H	1.73	0.51
10:V:2:ILE:HG12	10:V:57:ILE:HD13	1.91	0.51
2:N:120:ARG:NH1	12:X:54:ARG:HD2	2.24	0.51
1:A:55:ASP:CG	1:A:55:ASP:O	2.46	0.51
4:P:216:ASN:C	4:P:218:GLU:H	2.13	0.51
2:N:557:PHE:CZ	2:N:603:LEU:HD11	2.45	0.51
2:B:102:VAL:CG2	2:B:112:LEU:HD13	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:118:THR:HG21	4:P:121:LYS:CD	2.40	0.51
2:B:604:ARG:HH21	2:B:614:SER:HA	1.75	0.51
8:T:84:ALA:CA	8:T:87:ARG:HB2	2.39	0.51
8:T:84:ALA:O	8:T:85:GLY:C	2.49	0.51
2:B:954:VAL:O	12:L:55:ILE:O	2.27	0.51
1:A:108:MET:CA	1:A:210:ILE:HD13	2.28	0.51
1:A:903:ASN:ND2	1:A:903:ASN:C	2.62	0.51
1:A:709:THR:CG2	1:A:710:LEU:N	2.73	0.51
2:B:642:ASP:CA	2:B:649:LYS:HA	2.38	0.51
2:N:837:ASP:OD2	2:N:1020:ARG:NH2	2.44	0.51
3:C:73:GLN:HE21	3:C:75:MET:N	2.03	0.51
2:N:390:LEU:O	2:N:392:ARG:HG3	2.10	0.51
4:D:29:LEU:N	4:D:29:LEU:CD2	2.73	0.51
4:P:29:LEU:N	4:P:29:LEU:CD2	2.73	0.51
8:T:99:GLY:CA	8:T:118:PHE:HD2	2.23	0.51
4:D:33:PHE:CE1	7:G:80:LYS:HD3	2.46	0.51
2:N:1063:GLY:O	3:O:202:PRO:HG2	2.09	0.51
2:N:601:ARG:O	2:N:605:ARG:HG3	2.11	0.51
4:P:202:ILE:HG23	4:P:202:ILE:O	2.09	0.51
4:P:214:LEU:O	4:P:218:GLU:HB2	2.11	0.51
1:M:596:THR:C	1:M:598:LEU:N	2.62	0.51
5:E:124:VAL:HB	5:E:125:PRO:CD	2.40	0.51
8:T:89:LEU:HB2	8:T:91:ASP:CG	2.30	0.51
7:S:91:VAL:CG1	7:S:92:VAL:N	2.72	0.51
2:B:906:SER:O	2:B:907:GLY:C	2.48	0.51
2:B:546:SER:OG	2:B:631:GLY:N	2.43	0.51
13:4:23:BRU:H6	13:4:23:BRU:C5'	2.35	0.51
1:A:899:VAL:CG2	1:A:908:LEU:HD21	2.40	0.51
2:B:824:ILE:CG1	10:J:48:ARG:HH12	2.15	0.51
2:N:916:THR:HB	2:N:935:ARG:HG3	1.92	0.51
1:M:761:MET:HA	1:M:804:TYR:HB2	1.93	0.51
1:M:1120:LEU:CD2	1:M:1125:ALA:HA	2.40	0.51
6:F:109:VAL:HG13	6:F:127:GLU:OE1	2.09	0.51
3:C:184:ASN:OD1	3:C:187:LYS:CA	2.58	0.51
5:Q:61:GLN:HG2	5:Q:62:ALA:N	2.24	0.51
1:M:38:PRO:CA	1:M:270:LEU:HD23	2.41	0.51
2:B:69:LEU:HB3	2:B:429:PHE:HE1	1.73	0.51
9:I:82:GLU:OE2	9:I:104:LEU:HB2	2.10	0.51
3:C:116:LYS:HD3	3:C:140:ASN:HA	1.92	0.51
1:A:313:GLN:O	1:A:315:LEU:HD23	2.09	0.51
3:O:212:PRO:HB3	3:O:213:PRO:HD2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:756:ILE:O	1:A:759:ALA:HB3	2.10	0.51
5:Q:74:ASP:N	5:Q:74:ASP:OD1	2.43	0.51
3:C:91:HIS:C	3:C:91:HIS:CD2	2.82	0.51
2:B:299:GLU:OE2	2:B:571:PRO:HG2	2.10	0.51
12:X:47:ARG:CD	12:X:52:GLY:HA2	2.40	0.51
8:T:59:ILE:O	8:T:60:ALA:HB3	2.10	0.51
5:Q:56:LYS:NZ	5:Q:84:ASP:N	2.58	0.51
8:T:89:LEU:O	8:T:91:ASP:N	2.43	0.51
2:B:878:GLN:CB	2:B:879:ARG:HH11	2.23	0.51
2:N:806:THR:HG21	2:N:808:ALA:HB3	1.92	0.51
2:B:370:PHE:CD2	2:B:373:ARG:CD	2.93	0.51
6:F:103:MET:O	6:F:104:ASN:HB2	2.10	0.51
6:R:75:PRO:HG3	6:R:78:GLN:OE1	2.10	0.51
1:M:1325:THR:HG22	1:M:1326:ARG:HG3	1.91	0.51
1:A:1317:MET:O	1:A:1322:ILE:HD11	2.10	0.51
14:5:5:DC:H2'	14:5:6:DT:H72	1.91	0.51
1:A:1241:ARG:O	1:A:1242:VAL:HB	2.09	0.51
6:F:97:ARG:HH21	6:F:108:PHE:HE1	1.54	0.51
2:N:345:LYS:HG3	2:N:346:GLU:H	1.75	0.51
8:H:130:ARG:HA	8:H:133:ASN:HB2	1.93	0.51
3:O:186:LEU:CD2	3:O:225:ALA:HB2	2.41	0.51
1:M:463:ILE:HD12	1:M:469:ARG:HD2	1.91	0.51
2:B:90:ILE:HD12	2:B:432:MET:HE1	1.91	0.51
1:M:313:GLN:O	1:M:315:LEU:HD23	2.11	0.51
7:G:106:MET:CG	7:G:107:LYS:N	2.72	0.51
1:M:720:ARG:O	1:M:724:GLU:HB3	2.11	0.51
4:D:20:GLU:O	4:D:20:GLU:HG2	2.11	0.51
8:H:30:SER:CB	8:H:36:CYS:HB3	2.41	0.51
10:V:54:VAL:O	10:V:56:LEU:N	2.42	0.51
1:M:567:LYS:CG	1:M:568:PRO:CD	2.85	0.51
1:M:106:VAL:HG21	1:M:214:ILE:CD1	2.40	0.51
12:X:28:LYS:HE3	12:X:39:SER:OG	2.10	0.51
2:N:549:THR:HG22	2:N:550:ASP:H	1.71	0.51
2:B:515:HIS:CD2	2:B:517:THR:HG23	2.46	0.51
2:B:603:LEU:HB3	2:B:609:ILE:HD11	1.92	0.51
2:B:273:LEU:O	2:B:276:ILE:HB	2.10	0.51
1:M:1035:TYR:O	1:M:1036:ARG:HB2	2.10	0.51
2:N:273:LEU:HD22	2:N:360:PHE:HD1	1.76	0.51
1:M:740:LEU:HD12	1:M:741:ASN:N	2.25	0.51
11:W:49:GLU:HG3	11:W:94:ILE:CG1	2.40	0.51
9:U:34:TYR:HE2	9:U:36:GLU:HB3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:63:ILE:HD12	2:B:421:PHE:CE2	2.46	0.51
1:A:1170:ILE:HG22	1:A:1174:PHE:HE1	1.75	0.51
3:C:10:ILE:HG22	3:C:11:ARG:O	2.10	0.51
5:Q:161:LYS:HD2	5:Q:195:VAL:HG23	1.92	0.51
1:A:833:GLU:OE2	1:A:1102:LYS:HE3	2.10	0.51
2:N:258:LEU:O	2:N:258:LEU:HG	2.09	0.51
1:M:963:ILE:HD11	1:M:1048:ASN:CB	2.40	0.51
9:U:84:VAL:HG12	9:U:104:LEU:HD21	1.93	0.51
9:U:58:VAL:HG13	9:U:62:ILE:HD13	1.91	0.51
1:A:89:PRO:C	1:A:204:THR:HG21	2.30	0.51
2:N:1167:GLY:HA3	2:N:1216:LEU:N	2.25	0.51
1:A:347:PHE:HE2	1:A:375:THR:CG2	2.23	0.51
2:B:984:HIS:NE2	2:B:1025:HIS:HA	2.25	0.51
1:A:153:PRO:HB3	1:A:161:LEU:HD22	1.91	0.51
2:N:906:SER:O	2:N:907:GLY:C	2.48	0.51
3:C:252:GLN:HG3	11:K:95:ILE:HG23	1.93	0.51
1:M:857:ARG:HD3	1:M:861:GLY:O	2.11	0.51
2:B:558:LEU:O	2:B:561:TRP:N	2.44	0.51
1:M:1193:LEU:HD12	1:M:1194:ARG:N	2.26	0.51
2:B:37:PHE:HE1	2:B:41:LYS:HD3	1.75	0.51
2:B:879:ARG:N	2:B:879:ARG:NE	2.56	0.51
1:M:901:LEU:HB2	1:M:926:GLN:HG2	1.91	0.51
1:A:399:HIS:O	1:A:400:PRO:C	2.49	0.51
1:A:381:THR:HG23	1:A:382:PRO:HD2	1.93	0.51
11:K:47:ARG:HD3	11:K:59:ALA:O	2.11	0.51
2:N:594:ALA:N	2:N:617:ARG:HH12	2.08	0.51
2:N:39:ARG:HH21	2:N:665:GLU:CD	2.13	0.51
2:N:345:LYS:HG2	2:N:346:GLU:H	1.73	0.51
7:G:27:LYS:HE2	7:G:54:ILE:HB	1.93	0.51
10:V:25:LEU:O	10:V:29:GLU:HA	2.11	0.51
1:M:1148:ILE:O	1:M:1149:ALA:HB2	2.10	0.51
3:C:263:THR:O	3:C:266:ASP:HB2	2.10	0.51
8:T:18:GLY:O	8:T:19:ARG:HB2	2.11	0.51
5:Q:83:CYS:SG	5:Q:85:GLU:HB2	2.51	0.51
8:H:26:ILE:CD1	8:H:49:VAL:HG11	2.41	0.51
8:H:89:LEU:O	8:H:91:ASP:N	2.43	0.51
10:J:54:VAL:O	10:J:56:LEU:N	2.42	0.51
5:E:94:LYS:O	5:E:98:ILE:HG13	2.10	0.51
2:B:37:PHE:HE1	2:B:41:LYS:CD	2.24	0.51
2:B:999:MET:HB3	2:B:1007:VAL:HG21	1.92	0.51
7:G:97:HIS:HE1	7:S:93:SER:HB2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4:23:BRU:H2''	13:4:24:DG:O5'	2.10	0.51
2:N:1037:LEU:HD21	2:N:1064:TYR:CE1	2.43	0.51
3:O:248:ILE:CD1	11:W:101:LEU:HD22	2.39	0.51
1:A:1141:THR:HG23	1:A:1205:LYS:HD3	1.92	0.51
10:V:30:LEU:HD11	10:V:38:ARG:HH11	1.76	0.51
1:M:597:LEU:N	1:M:597:LEU:HD12	2.25	0.51
1:M:298:PHE:CZ	1:M:314:ALA:HB2	2.46	0.51
3:O:91:HIS:CD2	3:O:91:HIS:C	2.83	0.51
5:E:169:ARG:HD3	6:F:140:ASP:CG	2.30	0.51
2:N:121:ASN:HD22	2:N:207:GLY:HA3	1.75	0.51
11:W:107:THR:O	11:W:111:LEU:HG	2.11	0.51
1:A:1267:MET:HA	1:A:1271:ILE:HD12	1.91	0.51
2:N:124:TYR:OH	2:N:179:CYS:SG	2.68	0.51
1:M:744:LYS:HD3	1:M:748:MET:HE1	1.93	0.51
9:U:101:PHE:CD1	9:U:101:PHE:N	2.78	0.51
1:A:49:LYS:HE2	1:A:61:ILE:CD1	2.38	0.51
1:A:277:GLU:HG2	4:P:209:ARG:HH21	1.75	0.51
1:M:67:CYS:O	1:M:70:CYS:HB3	2.11	0.51
12:X:26:THR:HG23	12:X:62:LYS:NZ	2.26	0.51
2:B:878:GLN:O	2:B:879:ARG:C	2.49	0.51
7:S:91:VAL:HG12	7:S:92:VAL:N	2.24	0.51
2:B:276:ILE:HA	2:B:336:ARG:O	2.10	0.51
2:B:792:MET:HG2	2:B:855:PHE:HE1	1.76	0.51
1:M:253:ASN:HB2	2:N:884:ARG:NH1	2.26	0.51
1:A:860:LEU:HD11	1:A:1393:ASN:HB2	1.92	0.51
1:A:224:PHE:HD2	1:A:229:SER:O	1.93	0.51
1:M:224:PHE:HD2	1:M:229:SER:O	1.94	0.51
1:A:537:ARG:HD2	8:H:20:TYR:HE1	1.72	0.51
1:M:915:SER:O	1:M:919:ILE:HB	2.11	0.51
4:D:130:LEU:O	4:D:132:GLN:N	2.41	0.51
3:O:39:ALA:HA	3:O:164:ALA:CB	2.39	0.51
1:A:1148:ILE:O	1:A:1149:ALA:HB2	2.10	0.51
7:S:109:PHE:O	7:S:160:ILE:HA	2.11	0.51
1:A:1227:ILE:HG22	1:A:1228:TRP:H	1.76	0.51
2:N:211:VAL:HG13	2:N:495:LEU:HD23	1.92	0.51
2:N:204:ILE:O	2:N:204:ILE:HG22	2.11	0.51
2:N:906:SER:N	2:N:909:ASP:OD2	2.43	0.51
2:B:259:TYR:HD1	2:B:259:TYR:H	1.59	0.51
9:U:15:TYR:CD1	9:U:15:TYR:N	2.79	0.51
5:E:32:GLN:HG3	5:E:36:GLU:OE2	2.11	0.51
1:M:154:SER:HB3	1:M:162:VAL:HG21	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:PRO:HA	8:H:25:ARG:NH1	2.25	0.51
6:R:138:LEU:HB3	6:R:139:PRO:HD2	1.91	0.51
4:P:118:THR:HG21	4:P:121:LYS:CE	2.40	0.51
2:B:955:THR:CG2	2:B:956:THR:H	2.22	0.51
10:V:64:ASN:CB	10:V:65:PRO:HD3	2.36	0.51
7:S:138:THR:CG2	7:S:139:ILE:N	2.73	0.51
2:B:422:LYS:HA	2:B:425:THR:HB	1.91	0.51
1:M:399:HIS:CB	1:M:400:PRO:CD	2.88	0.51
1:A:871:ASP:OD1	1:A:1366:ARG:NH2	2.43	0.51
2:N:918:ILE:HG21	2:N:935:ARG:NH2	2.25	0.51
2:N:1115:THR:HG22	2:N:1117:GLN:CG	2.40	0.51
9:I:78:CYS:SG	9:I:105:SER:O	2.69	0.51
1:A:222:LEU:O	1:A:224:PHE:HD1	1.94	0.51
10:J:42:LYS:HD3	10:J:43:ARG:HD3	1.92	0.51
11:W:50:LEU:HD11	11:W:75:ILE:HD13	1.93	0.51
2:B:686:ASN:C	2:B:688:GLY:H	2.14	0.51
8:T:62:SER:OG	8:T:63:LEU:N	2.44	0.51
13:I:25:DG:H2"	13:I:26:DT:H72	1.92	0.51
1:M:50:ILE:O	1:M:52:GLY:N	2.43	0.51
1:M:886:ILE:CG2	1:M:887:GLY:N	2.74	0.51
5:E:112:TYR:CD1	5:E:112:TYR:C	2.84	0.51
3:C:252:GLN:HE21	11:K:95:ILE:HG23	1.75	0.51
1:M:132:LYS:HE3	1:M:1411:GLU:HG3	1.93	0.51
1:A:117:GLU:H	1:A:117:GLU:CD	2.14	0.51
1:M:856:THR:HB	1:M:865:GLN:HB2	1.92	0.51
1:A:598:LEU:HD23	8:H:25:ARG:NH2	2.26	0.51
1:A:67:CYS:O	1:A:68:GLN:C	2.49	0.51
1:A:549:MET:SD	1:A:577:ILE:CD1	2.99	0.51
2:N:599:THR:HG22	2:N:600:LEU:N	2.25	0.51
2:N:579:ARG:NH1	2:N:622:LYS:O	2.44	0.51
5:E:98:ILE:O	5:E:102:GLU:HG3	2.11	0.51
1:M:1255:GLU:CG	1:M:1255:GLU:O	2.58	0.51
2:B:273:LEU:HB3	2:B:276:ILE:HD12	1.91	0.51
2:B:847:ASP:C	2:B:849:GLY:N	2.64	0.51
1:A:1445:ILE:HD11	7:G:68:ALA:HB1	1.92	0.51
2:B:839:MET:HE1	2:B:980:PHE:HB2	1.93	0.51
1:A:1402:PHE:CE2	1:A:1403:GLU:HG3	2.46	0.51
11:K:47:ARG:HD2	11:K:47:ARG:C	2.32	0.51
7:G:18:PHE:HA	7:G:22:MET:CE	2.41	0.51
2:B:616:ILE:H	2:B:616:ILE:HD12	1.74	0.51
4:D:51:ASN:O	4:D:52:LEU:O	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:108:GLU:O	11:K:112:GLN:HG2	2.11	0.51
1:M:335:ARG:NH1	2:N:1206:GLU:OE1	2.44	0.51
2:N:185:THR:O	2:N:186:GLU:C	2.49	0.51
13:1:25:DG:H2"	13:1:26:DT:H73	1.93	0.51
11:W:53:ASP:HB3	11:W:56:VAL:HG23	1.92	0.51
9:I:109:ILE:HG22	9:I:109:ILE:O	2.09	0.51
2:B:781:PHE:HE2	2:B:795:ILE:HD11	1.76	0.51
1:A:598:LEU:HD11	8:H:124:ARG:HB2	1.93	0.51
8:H:95:TYR:HE2	8:H:97:MET:SD	2.34	0.51
1:A:56:PRO:O	1:A:57:ARG:CG	2.59	0.51
7:G:111:THR:CG2	7:G:114:LEU:HD22	2.40	0.51
8:T:42:ILE:HG23	8:T:95:TYR:HE1	1.76	0.51
1:M:114:LEU:HD21	1:M:171:GLN:HE21	1.75	0.51
2:N:807:ARG:NH1	2:N:807:ARG:HB3	2.26	0.51
1:M:868:TYR:OH	1:M:1366:ARG:HD3	2.11	0.51
2:N:96:TYR:HE1	2:N:131:ASP:OD1	1.94	0.51
2:N:165:VAL:HG11	2:N:448:ILE:CD1	2.41	0.51
1:A:13:THR:HB	1:A:1432:GLN:NE2	2.26	0.51
3:O:238:ILE:CG2	3:O:243:VAL:HG23	2.37	0.51
3:O:252:GLN:HE21	11:W:95:ILE:CG2	2.23	0.51
2:B:637:LEU:CD2	2:B:742:GLU:HA	2.41	0.51
10:V:36:LEU:HD12	10:V:47:ARG:NH1	2.26	0.51
1:A:866:PHE:O	1:A:867:ILE:HD12	2.10	0.51
2:N:840:ILE:CG2	2:N:994:TYR:HD1	2.24	0.51
1:M:443:LEU:HD12	2:N:1146:PHE:CE2	2.46	0.51
8:T:63:LEU:HD11	8:T:141:TYR:CD2	2.46	0.51
1:M:967:ALA:O	1:M:971:PHE:HD1	1.92	0.51
3:C:11:ARG:NH2	3:C:206:ASN:OD1	2.44	0.51
2:N:237:VAL:HG22	2:N:257:LYS:HA	1.93	0.51
1:M:960:ILE:HA	1:M:963:ILE:CG2	2.41	0.51
12:X:65:VAL:HG23	12:X:67:PHE:HE1	1.76	0.51
1:A:493:GLN:CA	1:A:493:GLN:HE21	2.23	0.51
3:O:229:TYR:N	3:O:229:TYR:CD1	2.78	0.51
1:M:200:ARG:HG2	1:M:200:ARG:HH11	1.75	0.51
6:R:127:GLU:O	6:R:129:LYS:HG3	2.11	0.51
8:H:84:ALA:C	8:H:86:ASP:N	2.63	0.50
12:X:59:ALA:O	12:X:60:ARG:O	2.30	0.50
1:A:50:ILE:O	1:A:52:GLY:N	2.43	0.50
4:P:155:ARG:NH2	4:P:221:TYR:CD1	2.76	0.50
1:A:562:THR:HB	8:H:98:TYR:CD2	2.46	0.50
3:C:177:GLU:HG3	3:C:231:ASN:CB	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:288:ALA:CA	1:A:291:GLU:HG3	2.40	0.50
7:S:139:ILE:HD11	7:S:140:LYS:HE3	1.94	0.50
2:N:791:THR:O	2:N:792:MET:HB2	2.10	0.50
2:N:1037:LEU:CD2	2:N:1064:TYR:HE1	2.23	0.50
1:M:560:ILE:HD11	11:W:58:PHE:HD1	1.75	0.50
2:N:33:VAL:HG21	2:N:638:PHE:HZ	1.76	0.50
2:N:654:ARG:O	2:N:657:HIS:N	2.44	0.50
2:N:638:PHE:CD2	2:N:690:VAL:HG12	2.46	0.50
2:N:1183:LYS:HE3	2:N:1183:LYS:O	2.12	0.50
2:N:847:ASP:HB3	3:O:167:HIS:CD2	2.45	0.50
10:V:44:TYR:HD2	10:V:44:TYR:H	1.54	0.50
4:D:35:LEU:HA	4:D:47:LEU:HB2	1.93	0.50
2:B:282:ILE:HD12	2:B:382:ILE:HD13	1.92	0.50
1:A:694:THR:O	1:A:698:GLN:HG3	2.11	0.50
2:B:483:LEU:HD11	2:B:491:THR:CG2	2.40	0.50
11:K:22:ASP:O	11:K:31:VAL:HG13	2.10	0.50
1:M:898:ARG:O	1:M:1029:ARG:NH1	2.44	0.50
1:M:1138:ILE:HG21	1:M:1316:VAL:HG13	1.92	0.50
4:P:20:GLU:HG2	4:P:20:GLU:O	2.11	0.50
3:O:235:VAL:HG11	10:V:6:ARG:NH2	2.26	0.50
4:P:217:LEU:O	4:P:219:THR:N	2.43	0.50
2:B:707:PRO:O	2:B:708:GLU:O	2.29	0.50
2:B:34:ILE:HG23	2:B:542:MET:CE	2.41	0.50
8:T:84:ALA:HA	8:T:87:ARG:CG	2.41	0.50
7:G:74:TYR:H	7:G:74:TYR:HD2	1.59	0.50
1:A:283:GLY:O	1:A:285:PRO:CD	2.59	0.50
2:N:37:PHE:HE2	2:N:542:MET:HA	1.75	0.50
2:N:31:TRP:CD1	2:N:807:ARG:NH2	2.79	0.50
1:M:826:ASP:O	1:M:830:LYS:HB2	2.11	0.50
1:A:503:GLN:NE2	6:F:90:ARG:NH2	2.53	0.50
3:O:123:ASN:HD22	3:O:125:MET:HG2	1.72	0.50
2:N:90:ILE:HD12	2:N:432:MET:SD	2.51	0.50
2:N:758:PHE:HE1	2:N:1027:ILE:HG22	1.76	0.50
1:M:207:ILE:HG22	1:M:211:PHE:CE2	2.46	0.50
9:U:78:CYS:SG	9:U:105:SER:O	2.69	0.50
14:2:5:DC:H2'	14:2:6:DT:H72	1.92	0.50
2:N:345:LYS:HG2	2:N:346:GLU:N	2.26	0.50
1:M:322:VAL:O	1:M:322:VAL:CG1	2.59	0.50
1:M:1339:LEU:HD13	5:Q:147:HIS:CD2	2.47	0.50
5:Q:96:PHE:CE1	5:Q:100:ILE:HD11	2.46	0.50
1:A:729:ALA:O	1:A:732:LEU:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:964:ILE:O	1:M:967:ALA:HB3	2.11	0.50
1:A:1168:GLU:O	1:A:1171:GLN:OE1	2.28	0.50
1:A:313:GLN:O	1:A:314:ALA:C	2.49	0.50
1:M:195:ASP:O	1:M:196:GLU:HB3	2.11	0.50
1:M:162:VAL:HG12	1:M:163:SER:N	2.26	0.50
2:B:794:ASN:C	2:B:795:ILE:HD12	2.32	0.50
2:N:305:VAL:HG12	2:N:305:VAL:O	2.11	0.50
7:G:83:LYS:HG3	7:G:148:GLU:O	2.12	0.50
5:Q:2:ASP:O	5:Q:3:GLN:HG2	2.10	0.50
1:M:909:ASP:OD1	1:M:911:SER:N	2.36	0.50
1:A:595:THR:O	1:A:596:THR:CG2	2.59	0.50
1:A:596:THR:C	1:A:598:LEU:N	2.63	0.50
1:M:49:LYS:HD2	1:M:55:ASP:HB3	1.91	0.50
9:U:61:ASP:O	9:U:63:GLY:N	2.45	0.50
7:S:1:MET:CE	7:S:2:PHE:HA	2.41	0.50
3:C:243:VAL:O	3:C:243:VAL:CG1	2.59	0.50
2:B:368:GLU:O	2:B:370:PHE:N	2.43	0.50
1:A:875:ALA:HB2	1:A:1366:ARG:HD2	1.94	0.50
5:Q:135:PHE:HD2	5:Q:140:LEU:HD21	1.76	0.50
3:O:22:LEU:HD22	3:O:230:MET:CE	2.41	0.50
2:N:298:LEU:N	2:N:298:LEU:HD22	2.27	0.50
2:B:696:GLU:O	2:B:699:GLU:HB2	2.11	0.50
1:M:1148:ILE:CG1	1:M:1198:ASP:HB2	2.42	0.50
1:A:162:VAL:HG12	1:A:163:SER:H	1.76	0.50
1:A:701:LEU:HD21	9:I:114:GLN:HB2	1.94	0.50
1:A:101:LYS:HE2	1:A:139:TRP:CZ2	2.46	0.50
1:A:786:HIS:N	1:A:786:HIS:CD2	2.79	0.50
11:W:64:GLU:HA	11:W:64:GLU:OE2	2.11	0.50
5:Q:182:ASP:HB3	5:Q:185:ALA:HB2	1.93	0.50
4:D:203:SER:OG	4:D:206:GLU:HB2	2.11	0.50
2:N:797:TYR:HE1	2:N:854:LEU:CD2	2.25	0.50
2:N:863:GLU:OE1	2:N:962:LYS:HB2	2.11	0.50
1:A:64:ASN:O	1:A:66:LYS:N	2.44	0.50
4:P:167:LEU:O	4:P:170:THR:HG23	2.12	0.50
3:C:118:LEU:HB2	3:C:132:PRO:HG2	1.94	0.50
2:B:190:TYR:CZ	2:B:196:PRO:HG3	2.47	0.50
7:S:92:VAL:HG21	7:S:102:GLN:HB2	1.93	0.50
1:M:1036:ARG:NH1	1:M:1036:ARG:CG	2.69	0.50
1:A:427:GLN:HB2	1:A:430:TRP:CG	2.47	0.50
2:N:272:THR:HG23	2:N:279:ASP:OD1	2.12	0.50
4:D:56:ARG:NH2	4:D:155:ARG:HA	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:39:ARG:HH21	2:B:665:GLU:CG	2.24	0.50
1:M:252:PHE:HB2	1:M:256:GLN:CD	2.31	0.50
4:D:162:ALA:HA	4:D:165:GLN:NE2	2.27	0.50
2:N:118:ARG:HH22	2:N:194:GLU:CD	2.14	0.50
2:N:259:TYR:H	2:N:259:TYR:HD1	1.60	0.50
1:M:1410:PHE:HD2	2:N:1212:ILE:CD1	2.24	0.50
1:A:1206:ASP:O	1:A:1274:ARG:NH2	2.44	0.50
2:B:431:TYR:CD1	2:B:447:ALA:HB2	2.47	0.50
3:O:70:ILE:HG12	3:O:142:VAL:HG11	1.93	0.50
2:B:622:LYS:CE	9:I:59:VAL:HG13	2.41	0.50
9:I:61:ASP:O	9:I:63:GLY:N	2.45	0.50
2:B:798:TYR:CE2	3:C:62:PHE:CZ	3.00	0.50
3:O:177:GLU:HG3	3:O:231:ASN:CB	2.30	0.50
2:B:185:THR:O	2:B:188:ASP:HB2	2.11	0.50
5:Q:180:ARG:NH2	5:Q:192:ARG:HD2	2.27	0.50
1:A:693:VAL:HG21	1:A:721:PHE:CE1	2.42	0.50
1:M:1237:ILE:CG2	1:M:1238:ILE:N	2.74	0.50
1:M:285:PRO:O	1:M:287:HIS:N	2.44	0.50
1:M:535:THR:HG21	1:M:616:VAL:CA	2.38	0.50
5:E:171:LYS:HG2	5:E:174:GLN:OE1	2.10	0.50
1:M:789:LYS:HD2	2:N:620:ARG:HH12	1.75	0.50
2:N:63:ILE:HD12	2:N:421:PHE:CZ	2.47	0.50
1:A:1124:HIS:HB2	1:A:1130:GLN:HG2	1.94	0.50
5:E:13:TRP:O	5:E:16:PHE:HB3	2.11	0.50
1:A:493:GLN:CA	1:A:493:GLN:NE2	2.73	0.50
7:G:81:PRO:HD2	7:G:157:ILE:HD12	1.93	0.50
1:M:200:ARG:HG2	1:M:200:ARG:NH1	2.26	0.50
3:O:209:TYR:HD1	3:O:209:TYR:H	1.58	0.50
3:O:101:LEU:O	3:O:102:GLN:HG2	2.12	0.50
2:N:209:GLU:OE2	2:N:485:ARG:NE	2.36	0.50
2:N:984:HIS:CD2	2:N:1025:HIS:HA	2.47	0.50
5:Q:169:ARG:HD3	6:R:140:ASP:CG	2.31	0.50
1:A:72:GLU:HB3	1:A:76:GLU:HG2	1.92	0.50
12:X:28:LYS:HB3	12:X:39:SER:HB2	1.93	0.50
4:P:120:GLU:OE1	4:P:120:GLU:O	2.30	0.50
2:B:185:THR:O	2:B:186:GLU:C	2.50	0.50
12:L:47:ARG:HD3	12:L:52:GLY:HA2	1.92	0.50
9:U:6:PHE:CB	9:U:12:ASN:O	2.52	0.50
3:C:147:LEU:HD12	3:C:151:GLN:O	2.11	0.50
2:B:847:ASP:HB3	3:C:167:HIS:CD2	2.46	0.50
1:A:722:LEU:HD21	1:A:794:PRO:HB3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:794:PRO:C	1:A:796:SER:H	2.14	0.50
3:O:133:ILE:HD12	3:O:237:SER:N	2.26	0.50
2:N:1117:GLN:HE21	2:N:1199:ALA:HB2	1.77	0.50
1:A:1015:VAL:HG12	1:A:1015:VAL:O	2.11	0.50
3:C:186:LEU:CD2	3:C:225:ALA:HB2	2.41	0.50
4:D:51:ASN:HB3	4:D:178:ALA:O	2.11	0.50
1:M:1021:LEU:O	1:M:1024:SER:HB3	2.12	0.50
2:B:611:PRO:O	2:B:692:TYR:HB2	2.12	0.50
1:M:196:GLU:HG3	1:M:197:PRO:HD2	1.94	0.50
2:N:95:ILE:CG1	2:N:130:VAL:HG22	2.41	0.50
4:D:23:ASN:HA	4:D:28:GLN:O	2.12	0.50
1:M:1362:TYR:CD1	1:M:1363:VAL:N	2.79	0.50
5:E:121:MET:C	5:E:123:LEU:H	2.14	0.50
4:P:36:LYS:HG2	4:P:44:GLU:OE1	2.12	0.50
10:V:1:MET:H1	10:V:56:LEU:HB2	1.77	0.50
2:B:1116:ARG:HG3	2:B:1198:TYR:CD2	2.47	0.50
2:N:599:THR:O	2:N:603:LEU:HB2	2.11	0.50
2:N:642:ASP:CA	2:N:649:LYS:HA	2.39	0.50
1:M:171:GLN:HA	1:M:171:GLN:OE1	2.12	0.50
1:M:1444:MET:HG3	7:S:60:ARG:CA	2.33	0.50
7:S:138:THR:O	7:S:140:LYS:N	2.45	0.50
4:P:71:LYS:HG2	4:P:74:GLN:HE21	1.74	0.50
1:M:225:ASN:ND2	1:M:227:VAL:N	2.59	0.50
7:G:14:HIS:CE1	7:G:15:PRO:HD2	2.46	0.50
14:5:2:DC:C5	14:5:3:DT:H73	2.46	0.50
1:M:1095:THR:HG21	1:M:1112:LYS:HD2	1.94	0.50
1:M:337:ARG:HD3	2:N:1132:GLU:CD	2.32	0.50
4:D:8:PHE:HD2	7:G:6:ASP:O	1.94	0.50
1:A:973:ILE:HD11	1:A:1041:ALA:HB2	1.94	0.50
2:N:611:PRO:O	2:N:692:TYR:HB2	2.12	0.50
11:K:31:VAL:CG1	11:K:32:VAL:N	2.74	0.50
2:B:1001:PHE:CZ	2:B:1073:TYR:HB2	2.47	0.50
8:H:106:GLU:O	8:H:108:SER:N	2.34	0.50
4:P:130:LEU:O	4:P:132:GLN:N	2.41	0.50
1:M:567:LYS:CE	8:T:46:LEU:HB2	2.42	0.50
3:O:147:LEU:CD2	3:O:147:LEU:N	2.74	0.50
10:V:64:ASN:HB3	10:V:65:PRO:HD2	1.89	0.50
2:N:62:ILE:HG23	2:N:418:LYS:HG3	1.93	0.50
2:N:859:TYR:OH	2:N:941:LEU:HD12	2.12	0.50
1:M:722:LEU:HB3	1:M:799:PHE:CE1	2.46	0.50
2:B:424:LEU:O	2:B:428:ILE:HG13	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:852:TYR:CD2	1:A:1060:PRO:CB	2.95	0.50
13:4:16:DT:N3	13:4:17:DT:C4	2.80	0.50
2:B:766:ARG:NH2	2:B:1020:ARG:HD3	2.26	0.50
1:A:1255:GLU:HG2	1:A:1255:GLU:O	2.12	0.50
1:A:306:ASN:ND2	1:A:322:VAL:HG12	2.26	0.50
2:N:821:GLN:OE1	2:N:850:LEU:HD12	2.12	0.50
2:N:850:LEU:HD12	2:N:851:PHE:N	2.26	0.50
2:N:803:LEU:HD12	2:N:1032:SER:HB3	1.94	0.50
1:A:645:LEU:HG	1:A:649:ILE:HD12	1.94	0.50
8:H:113:ALA:HA	8:H:125:LEU:O	2.11	0.50
1:M:1421:CYS:HA	1:M:1426:GLU:HG3	1.93	0.50
2:N:618:ASP:O	2:N:622:LYS:N	2.45	0.50
1:M:567:LYS:HB3	8:T:95:TYR:HA	1.92	0.50
7:S:106:MET:CG	7:S:107:LYS:H	2.25	0.50
2:N:751:VAL:HG13	2:N:812:LEU:CD2	2.37	0.50
7:S:113:HIS:N	7:S:113:HIS:ND1	2.56	0.50
4:D:118:THR:HG22	4:D:118:THR:O	2.11	0.50
2:N:429:PHE:CD1	2:N:432:MET:HE3	2.46	0.50
2:B:893:LEU:HD22	2:B:897:GLY:HA2	1.94	0.50
6:F:81:THR:HB	6:F:136:ARG:HH11	1.75	0.50
1:A:1241:ARG:O	1:A:1242:VAL:CG2	2.60	0.50
1:M:133:LYS:O	1:M:136:ALA:HB3	2.12	0.50
5:E:127:ILE:O	5:E:127:ILE:HG13	2.12	0.50
2:B:1001:PHE:CE2	3:C:34:ARG:CZ	2.95	0.50
1:M:1324:PRO:HB2	5:Q:142:VAL:HG11	1.93	0.50
1:M:1399:ARG:HB3	1:M:1408:ILE:HD13	1.93	0.50
1:M:1336:MET:HE2	1:M:1381:LEU:HG	1.94	0.50
9:U:73:ARG:HH12	9:U:112:SER:CB	2.25	0.49
1:A:562:THR:HB	8:H:98:TYR:HD2	1.75	0.49
1:M:351:THR:CG2	2:N:1103:ILE:HA	2.22	0.49
1:M:41:MET:O	1:M:42:ASP:O	2.29	0.49
2:B:1103:ILE:O	2:B:1103:ILE:HG23	2.11	0.49
12:L:27:LEU:O	12:L:28:LYS:HB2	2.12	0.49
2:B:956:THR:HA	2:B:961:LEU:O	2.11	0.49
7:G:138:THR:O	7:G:140:LYS:N	2.45	0.49
1:M:1277:GLU:O	1:M:1279:ILE:N	2.44	0.49
2:B:758:PHE:CE2	2:B:1044:ALA:CA	2.90	0.49
2:N:327:ARG:O	2:N:331:LEU:HD13	2.12	0.49
1:A:1342:GLU:HG3	5:E:198:ILE:HD13	1.93	0.49
7:S:31:LEU:HD23	7:S:48:VAL:HG21	1.93	0.49
2:N:916:THR:CG2	2:N:935:ARG:HD2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:203:PHE:HB3	2:N:205:ILE:CD1	2.42	0.49
3:C:25:VAL:HG12	3:C:26:ASP:H	1.76	0.49
1:A:1315:GLU:C	1:A:1317:MET:H	2.15	0.49
4:D:144:THR:HG21	7:G:46:LEU:HD13	1.92	0.49
1:A:1237:ILE:CG2	1:A:1238:ILE:N	2.75	0.49
4:D:47:LEU:HD13	4:D:48:ILE:N	2.27	0.49
9:U:13:MET:HG2	9:U:14:LEU:N	2.27	0.49
7:G:116:PRO:HG2	7:G:119:LEU:CB	2.42	0.49
2:N:991:GLY:O	2:N:992:ILE:HB	2.12	0.49
2:N:1147:LEU:CD2	2:N:1151:LEU:HD22	2.42	0.49
11:K:55:LYS:HD3	11:K:81:TYR:CE1	2.47	0.49
1:A:349:ALA:HB2	1:A:374:LEU:HD11	1.94	0.49
1:M:874:ASP:OD1	1:M:874:ASP:C	2.49	0.49
4:P:57:LEU:HD13	4:P:157:GLN:OE1	2.12	0.49
7:S:11:ILE:HD13	7:S:29:LYS:HB3	1.93	0.49
1:A:807:GLY:HA2	2:B:760:ASP:O	2.11	0.49
1:A:1187:GLN:HG3	1:A:1188:GLN:H	1.76	0.49
1:A:1280:GLU:O	1:A:1281:ARG:O	2.30	0.49
1:A:598:LEU:HD23	8:H:25:ARG:CZ	2.42	0.49
8:H:42:ILE:HG23	8:H:95:TYR:CE1	2.47	0.49
8:H:58:THR:O	8:H:59:ILE:HG13	2.12	0.49
8:H:81:PRO:CB	8:H:82:PRO:CD	2.88	0.49
3:O:65:HIS:O	3:O:69:LEU:HD12	2.11	0.49
12:X:48:CYS:HB3	12:X:51:CYS:O	2.12	0.49
1:M:1254:ALA:O	1:M:1255:GLU:CB	2.60	0.49
1:A:820:GLY:O	1:A:822:GLU:N	2.45	0.49
2:N:168:GLY:HA2	2:N:450:ALA:O	2.12	0.49
1:A:445:ASN:CB	1:A:455:MET:HG2	2.35	0.49
2:B:167:ILE:HG21	2:B:424:LEU:CD2	2.42	0.49
1:A:401:GLY:C	1:A:435:HIS:CD2	2.85	0.49
2:N:885:MET:HA	2:N:936:ASP:HB2	1.94	0.49
2:B:1099:VAL:HG13	2:B:1100:ASP:N	2.27	0.49
4:D:146:GLN:O	4:D:147:TYR:C	2.50	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:CB	2.42	0.49
1:A:1242:VAL:CG1	1:A:1243:VAL:H	2.25	0.49
1:M:1433:MET:HE3	7:S:63:PRO:CB	2.41	0.49
2:N:653:VAL:HA	2:N:689:LEU:HD22	1.94	0.49
2:B:282:ILE:HG21	2:B:382:ILE:CD1	2.42	0.49
4:P:175:PHE:O	4:P:178:ALA:HB3	2.11	0.49
2:N:431:TYR:CG	2:N:447:ALA:HB2	2.47	0.49
3:O:258:ILE:HG23	11:W:19:LEU:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:370:ILE:CG2	1:M:374:LEU:HD12	2.42	0.49
2:B:1167:GLY:HA3	2:B:1216:LEU:N	2.27	0.49
3:C:22:LEU:HD13	3:C:230:MET:HE1	1.93	0.49
1:A:1100:ARG:O	1:A:1104:ILE:HG13	2.11	0.49
8:H:123:MET:HE3	8:H:142:LEU:CD2	2.43	0.49
1:A:202:LEU:HA	1:A:206:GLU:OE1	2.13	0.49
12:L:38:LEU:HG	12:L:39:SER:N	2.28	0.49
2:N:31:TRP:CE3	2:N:34:ILE:HD12	2.46	0.49
2:N:429:PHE:HA	2:N:432:MET:CE	2.43	0.49
1:A:399:HIS:CG	1:A:400:PRO:N	2.79	0.49
2:N:1072:MET:HE3	2:N:1085:ILE:HB	1.88	0.49
2:B:953:LEU:O	2:B:953:LEU:HD23	2.12	0.49
1:A:80:HIS:H	1:A:243:PRO:HB3	1.77	0.49
4:P:24:ALA:HA	7:S:83:LYS:O	2.12	0.49
2:N:635:ARG:NH1	2:N:742:GLU:OE2	2.43	0.49
3:C:189:THR:CG2	3:C:190:ASP:N	2.74	0.49
1:A:122:MET:HA	1:A:141:LEU:HD11	1.94	0.49
13:4:25:DG:N9	13:4:26:DT:H72	2.28	0.49
1:A:773:LYS:H	1:A:773:LYS:CD	2.23	0.49
5:E:129:PRO:O	5:E:130:ALA:C	2.51	0.49
3:C:212:PRO:HB3	3:C:213:PRO:HD2	1.95	0.49
7:S:77:VAL:O	7:S:77:VAL:HG12	2.11	0.49
1:A:152:VAL:HG13	1:A:153:PRO:HD2	1.94	0.49
2:N:108:VAL:HG23	2:N:109:THR:N	2.27	0.49
7:G:121:PHE:HB2	7:G:130:TYR:CE2	2.48	0.49
2:B:728:ARG:HH12	2:B:1047:PHE:HB3	1.78	0.49
1:A:1450:LEU:HD21	7:G:19:GLY:O	2.13	0.49
2:N:110:HIS:HB3	12:X:54:ARG:HH22	1.78	0.49
2:N:956:THR:HA	2:N:961:LEU:O	2.12	0.49
1:M:1163:ILE:HG22	1:M:1165:GLU:HG3	1.94	0.49
2:B:244:LEU:HD12	2:B:250:PHE:HD1	1.77	0.49
5:E:114:ASN:O	5:E:115:ASN:CB	2.48	0.49
2:B:205:ILE:HD11	2:B:461:LEU:HD23	1.94	0.49
1:M:285:PRO:CG	1:M:288:ALA:HB3	2.38	0.49
5:E:180:ARG:NH2	5:E:192:ARG:HB2	2.25	0.49
2:B:235:SER:O	2:B:236:HIS:HD2	1.95	0.49
2:N:848:ARG:HH22	2:N:996:ARG:HD3	1.77	0.49
2:N:449:ASN:C	2:N:451:LYS:H	2.16	0.49
5:E:61:GLN:HG2	5:E:62:ALA:N	2.27	0.49
1:A:489:LEU:HD12	1:A:489:LEU:C	2.32	0.49
1:M:1100:ARG:NH2	1:M:1351:GLU:HG2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:967:ALA:HA	1:A:1044:TRP:CZ3	2.47	0.49
2:N:95:ILE:CB	2:N:130:VAL:HG22	2.43	0.49
3:O:118:LEU:HB2	3:O:132:PRO:HG2	1.94	0.49
11:K:64:GLU:OE2	11:K:64:GLU:HA	2.12	0.49
1:A:164:ARG:HG3	1:A:165:GLY:N	2.26	0.49
3:O:147:LEU:HD12	3:O:151:GLN:O	2.12	0.49
7:S:121:PHE:CZ	7:S:123:ALA:HA	2.48	0.49
1:M:714:PHE:O	1:M:718:VAL:HG23	2.12	0.49
1:M:401:GLY:C	1:M:435:HIS:HD2	2.15	0.49
2:N:221:ASN:N	2:N:241:ARG:O	2.40	0.49
2:N:244:LEU:CD1	2:N:366:GLN:HE22	2.18	0.49
2:N:368:GLU:O	2:N:370:PHE:N	2.44	0.49
2:N:370:PHE:HD2	2:N:373:ARG:HD3	1.78	0.49
2:B:466:TRP:HA	2:B:466:TRP:CE3	2.46	0.49
13:1:16:DT:N3	13:1:17:DT:C4	2.81	0.49
2:B:789:MET:HE2	2:B:953:LEU:HD22	1.94	0.49
2:N:658:ILE:HG22	2:N:662:MET:HE2	1.94	0.49
9:U:44:TYR:HD1	9:U:45:ARG:H	1.61	0.49
9:I:7:CYS:HB2	9:I:34:TYR:CG	2.47	0.49
1:M:493:GLN:NE2	1:M:493:GLN:CA	2.75	0.49
2:N:975:GLN:HG2	2:N:976:ILE:N	2.27	0.49
1:A:961:ARG:HH11	1:A:961:ARG:CB	2.26	0.49
5:E:207:ARG:CB	5:E:207:ARG:NH1	2.75	0.49
1:A:385:ILE:CD1	1:A:426:LEU:HB2	2.42	0.49
11:K:55:LYS:HB2	11:K:81:TYR:CD1	2.48	0.49
2:B:95:ILE:HG13	2:B:130:VAL:HG22	1.93	0.49
2:N:570:VAL:HG21	2:N:573:GLN:CD	2.33	0.49
2:N:307:ASP:OD2	2:N:310:MET:HB2	2.12	0.49
9:U:98:VAL:CG1	9:U:111:THR:HG23	2.43	0.49
2:N:955:THR:CG2	2:N:956:THR:H	2.25	0.49
12:X:34:CYS:O	12:X:34:CYS:SG	2.71	0.49
4:P:155:ARG:NH2	4:P:221:TYR:HD1	2.08	0.49
4:P:220:LEU:HD23	4:P:221:TYR:N	2.28	0.49
2:N:558:LEU:O	2:N:561:TRP:N	2.45	0.49
1:M:106:VAL:CG1	1:M:107:CYS:N	2.74	0.49
3:C:248:ILE:HD13	11:K:101:LEU:HD22	1.94	0.49
1:M:1444:MET:HE2	1:M:1444:MET:N	2.27	0.49
7:G:160:ILE:HD11	7:S:111:THR:HG21	1.95	0.49
2:B:839:MET:HE2	2:B:980:PHE:HB2	1.93	0.49
1:M:679:ILE:HG23	1:M:729:ALA:HB1	1.95	0.49
1:A:963:ILE:HD11	1:A:1048:ASN:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:497:ARG:HH21	2:B:775:LYS:NZ	2.10	0.49
1:A:1242:VAL:HG12	1:A:1243:VAL:H	1.76	0.49
1:M:452:LYS:HB3	2:N:1141:HIS:CE1	2.47	0.49
2:B:282:ILE:HD11	2:B:317:CYS:SG	2.53	0.49
2:N:190:TYR:CE1	2:N:196:PRO:HG3	2.48	0.49
8:H:106:GLU:C	8:H:108:SER:H	2.15	0.49
1:A:663:SER:OG	1:A:664:THR:N	2.45	0.49
1:A:134:ARG:HD2	1:A:221:SER:O	2.12	0.49
8:H:47:PHE:CB	8:H:95:TYR:HD1	2.26	0.49
9:I:92:ARG:HD2	9:I:94:ASP:OD2	2.12	0.49
6:F:100:GLN:NE2	7:G:61:ILE:HD13	2.28	0.49
1:M:563:PRO:HG3	1:M:572:TRP:CE2	2.44	0.49
1:M:145:LYS:CA	1:M:145:LYS:HE3	2.40	0.49
14:2:2:DC:C5	14:2:3:DT:H73	2.47	0.49
2:N:294:ASP:C	2:N:296:GLU:N	2.61	0.49
4:D:119:ARG:O	4:D:123:LEU:HD23	2.13	0.49
4:D:155:ARG:NE	4:D:221:TYR:HE1	2.10	0.49
2:B:351:TYR:O	2:B:355:ILE:HG13	2.11	0.49
2:N:313:MET:O	2:N:316:PRO:HD2	2.13	0.49
3:C:39:ALA:HA	3:C:164:ALA:CB	2.42	0.49
1:A:335:ARG:NH1	2:B:1206:GLU:CD	2.66	0.49
1:M:597:LEU:HD23	8:T:103:LYS:CD	2.43	0.49
8:T:104:PHE:CZ	8:T:136:LYS:HA	2.47	0.49
1:M:1152:ILE:HD11	1:M:1261:LYS:HG3	1.93	0.49
1:M:196:GLU:CG	1:M:197:PRO:HD2	2.43	0.49
1:M:945:GLU:OE1	5:Q:201:LYS:NZ	2.45	0.49
1:A:2:VAL:CG1	2:B:1157:ALA:O	2.60	0.49
1:A:440:ASP:O	1:A:460:VAL:HG23	2.13	0.49
8:H:13:SER:HB3	8:H:27:GLU:O	2.13	0.49
1:A:67:CYS:O	1:A:70:CYS:HB3	2.12	0.49
4:P:139:LYS:HG3	4:P:140:ASP:OD1	2.13	0.49
1:M:64:ASN:O	1:M:66:LYS:N	2.46	0.49
5:E:88:VAL:HB	5:E:116:ILE:HG12	1.94	0.49
1:A:288:ALA:HA	1:A:291:GLU:CG	2.42	0.49
2:B:492:LEU:HB2	2:B:751:VAL:HG11	1.95	0.49
7:S:110:VAL:CG1	7:S:161:GLY:O	2.61	0.49
2:B:294:ASP:C	2:B:296:GLU:N	2.60	0.49
2:N:373:ARG:HA	2:N:566:LEU:CD2	2.42	0.49
2:N:373:ARG:HA	2:N:566:LEU:HD23	1.94	0.49
1:M:547:LEU:HD22	11:W:58:PHE:CD1	2.47	0.49
8:T:106:GLU:C	8:T:108:SER:H	2.15	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:351:TYR:CZ	2:B:355:ILE:HD11	2.47	0.49
2:N:866:TYR:CG	2:N:870:ILE:HB	2.48	0.49
9:I:58:VAL:HG13	9:I:62:ILE:HG21	1.93	0.49
5:E:112:TYR:O	5:E:137:GLU:HG3	2.13	0.49
1:M:1410:PHE:HD2	2:N:1212:ILE:HD11	1.78	0.49
4:D:167:LEU:O	4:D:170:THR:HG23	2.13	0.49
1:M:663:SER:OG	1:M:664:THR:N	2.45	0.49
8:H:84:ALA:O	8:H:85:GLY:C	2.52	0.49
1:A:40:THR:HG23	1:A:54:ASN:ND2	2.27	0.49
1:M:42:ASP:HB3	1:M:45:GLN:CA	2.43	0.49
1:M:65:LEU:O	1:M:66:LYS:O	2.30	0.49
1:M:75:ASN:O	1:M:76:GLU:HB2	2.13	0.49
1:A:106:VAL:HG12	1:A:107:CYS:H	1.76	0.49
8:T:26:ILE:HD13	8:T:49:VAL:HG11	1.94	0.49
2:B:303:TYR:HH	2:B:586:TRP:HH2	1.59	0.49
5:E:88:VAL:HG21	5:E:110:PHE:CE1	2.47	0.49
5:Q:177:ARG:C	5:Q:212:ARG:HD3	2.33	0.49
2:B:805:THR:CG2	2:B:806:THR:H	2.16	0.49
2:N:429:PHE:HD1	2:N:432:MET:HE3	1.77	0.49
3:O:44:LEU:HD13	3:O:129:ILE:HG23	1.94	0.49
2:B:371:GLU:OE1	2:B:371:GLU:N	2.45	0.49
1:A:265:LYS:CA	1:A:265:LYS:CE	2.89	0.49
2:N:862:GLN:CG	2:N:963:PHE:HD1	2.19	0.49
1:M:1170:ILE:HG22	1:M:1174:PHE:CE1	2.48	0.49
6:F:111:LEU:C	6:F:113:GLY:N	2.64	0.49
8:H:130:ARG:HH11	8:H:130:ARG:CB	2.25	0.49
1:A:316:GLN:HG2	1:A:317:LYS:N	2.28	0.49
8:H:44:VAL:HG12	8:H:44:VAL:O	2.13	0.49
2:N:597:MET:HE2	2:N:597:MET:HA	1.95	0.49
2:N:1084:GLN:NE2	2:N:1084:GLN:H	2.09	0.49
10:V:30:LEU:CD1	10:V:38:ARG:HH11	2.26	0.49
1:M:35:ILE:HA	1:M:52:GLY:O	2.13	0.49
2:N:1165:ILE:HG21	4:P:17:LYS:CG	2.43	0.49
1:A:886:ILE:CG2	1:A:887:GLY:N	2.76	0.49
1:A:460:VAL:HG12	1:A:461:LYS:N	2.27	0.49
2:B:118:ARG:NH2	2:B:194:GLU:OE1	2.42	0.49
1:M:447:GLN:HA	1:M:448:PRO:C	2.33	0.49
2:B:629:ASP:HB3	2:B:632:ARG:HD3	1.94	0.49
8:H:40:LEU:HD23	8:H:42:ILE:CG1	2.43	0.49
8:H:4:THR:HA	8:H:60:ALA:CB	2.19	0.49
1:A:57:ARG:O	1:A:68:GLN:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:98:ILE:HG22	5:E:102:GLU:CG	2.42	0.49
1:M:1195:LEU:HD11	1:M:1267:MET:HE1	1.95	0.49
8:T:91:ASP:C	8:T:93:TYR:H	2.16	0.49
2:B:334:ILE:CG2	2:B:334:ILE:O	2.60	0.49
2:N:131:ASP:HA	2:N:164:LYS:HB3	1.95	0.49
1:M:901:LEU:H	1:M:926:GLN:CD	2.16	0.49
1:M:265:LYS:CE	1:M:265:LYS:HA	2.38	0.49
4:P:69:ALA:C	4:P:71:LYS:H	2.15	0.49
4:P:66:ARG:O	4:P:70:PHE:HB2	2.13	0.49
1:A:407:ARG:HG2	1:A:430:TRP:CE2	2.48	0.49
1:A:37:PHE:H	1:A:37:PHE:HD1	1.58	0.49
1:M:1118:VAL:HG12	1:M:1327:ILE:HG13	1.95	0.49
1:M:1409:LEU:CD1	2:N:1207:LEU:HD11	2.42	0.49
1:A:831:THR:HG23	1:A:832:ALA:N	2.27	0.49
4:D:14:ARG:HH12	4:D:16:LYS:HZ2	1.60	0.49
1:A:23:SER:HB3	1:A:233:TRP:CZ2	2.48	0.49
2:B:679:TYR:HE1	2:B:687:GLU:OE2	1.96	0.49
1:M:1147:THR:HB	9:U:48:LEU:HD12	1.94	0.49
5:Q:37:LEU:CD1	5:Q:41:ASP:HB2	2.43	0.49
1:M:30:ILE:HD11	2:N:1168:LEU:CD1	2.43	0.49
1:A:1453:TYR:O	1:A:1454:MET:HB3	2.13	0.49
1:M:1280:GLU:O	1:M:1281:ARG:O	2.31	0.49
8:T:30:SER:CB	8:T:36:CYS:HB3	2.43	0.49
3:C:219:PHE:CE2	3:C:221:TYR:HB3	2.48	0.48
2:N:120:ARG:HG2	2:N:955:THR:HG21	1.95	0.48
4:P:134:THR:CG2	4:P:141:LEU:HD23	2.42	0.48
1:M:590:ARG:HH12	1:M:592:ASP:CG	2.16	0.48
8:T:130:ARG:HA	8:T:133:ASN:HB2	1.95	0.48
2:B:916:THR:CG2	2:B:935:ARG:HD2	2.43	0.48
3:C:242:GLN:OE1	3:C:242:GLN:HA	2.13	0.48
1:A:820:GLY:O	1:A:823:GLY:N	2.46	0.48
2:B:274:PRO:O	2:B:275:TYR:HB2	2.13	0.48
2:N:331:LEU:O	2:N:334:ILE:HB	2.13	0.48
8:T:106:GLU:O	8:T:108:SER:N	2.35	0.48
14:2:4:DA:H2"	14:2:5:DC:H6	1.78	0.48
14:5:4:DA:H2"	14:5:5:DC:H6	1.78	0.48
6:F:101:ILE:HD13	6:F:120:ILE:CG2	2.43	0.48
7:G:117:GLN:NE2	7:S:154:VAL:CG2	2.76	0.48
2:B:56:ASP:C	2:B:57:TYR:HD1	2.16	0.48
2:N:846:ILE:CG2	2:N:974:PRO:HG2	2.42	0.48
7:G:1:MET:O	7:G:2:PHE:C	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:211:VAL:HG13	2:B:495:LEU:HD23	1.94	0.48
3:C:8:VAL:HG12	3:C:9:LYS:N	2.28	0.48
4:P:32:GLU:HG3	7:S:5:LYS:HE2	1.94	0.48
2:B:453:ILE:O	2:B:457:LEU:HG	2.12	0.48
2:B:27:ALA:O	2:B:29:ASP:N	2.46	0.48
1:A:1018:PHE:O	1:A:1021:LEU:HB3	2.12	0.48
3:C:35:ARG:NH1	11:K:41:THR:OG1	2.46	0.48
3:O:116:LYS:HG3	3:O:117:ASP:OD1	2.13	0.48
2:B:531:GLN:CG	2:B:532:ALA:H	2.23	0.48
2:N:387:LEU:HD12	2:N:387:LEU:N	2.28	0.48
3:O:182:PRO:HD2	3:O:210:GLU:OE1	2.13	0.48
1:A:857:ARG:CZ	6:F:139:PRO:HG3	2.43	0.48
8:H:91:ASP:C	8:H:93:TYR:H	2.17	0.48
1:A:107:CYS:HB2	1:A:114:LEU:HD21	1.94	0.48
1:M:595:THR:O	1:M:596:THR:CG2	2.61	0.48
3:C:99:LEU:HD12	3:C:118:LEU:HB3	1.95	0.48
2:B:557:PHE:CZ	2:B:603:LEU:HD11	2.48	0.48
2:B:878:GLN:HB2	2:B:879:ARG:HH11	1.76	0.48
2:B:244:LEU:HD11	2:B:366:GLN:NE2	2.28	0.48
2:B:792:MET:HA	2:B:856:PHE:O	2.13	0.48
2:N:436:VAL:O	2:N:436:VAL:HG12	2.13	0.48
2:N:68:THR:HG22	2:N:91:SER:HA	1.94	0.48
9:U:88:SER:HB3	9:U:95:THR:HG21	1.95	0.48
1:A:93:VAL:CG1	1:A:301:ALA:HB1	2.38	0.48
1:A:1402:PHE:CE2	1:A:1403:GLU:CG	2.95	0.48
1:M:168:GLY:O	1:M:169:ASN:C	2.50	0.48
1:M:534:LEU:HG	1:M:534:LEU:O	2.12	0.48
1:A:87:ALA:CB	1:A:276:LEU:HD23	2.38	0.48
2:N:594:ALA:N	2:N:617:ARG:NH1	2.61	0.48
2:N:659:ALA:HA	2:N:662:MET:HE2	1.95	0.48
2:N:847:ASP:C	2:N:849:GLY:N	2.66	0.48
11:W:113:THR:O	11:W:114:LEU:CB	2.61	0.48
8:H:62:SER:OG	8:H:64:ASN:ND2	2.47	0.48
2:N:798:TYR:CD1	10:V:4:PRO:HG3	2.48	0.48
1:M:1450:LEU:CD1	6:R:108:PHE:CZ	2.96	0.48
2:B:487:THR:HG22	2:B:488:TYR:N	2.28	0.48
11:W:88:LYS:O	11:W:91:CYS:HB2	2.13	0.48
1:A:196:GLU:HG2	1:A:197:PRO:HD2	1.94	0.48
3:O:35:ARG:NH1	11:W:41:THR:N	2.60	0.48
2:B:785:TYR:CD1	2:B:786:ASN:N	2.81	0.48
2:N:1033:LYS:NZ	2:N:1070:GLU:OE1	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:567:LYS:CE	8:H:46:LEU:HB2	2.43	0.48
8:T:4:THR:HA	8:T:60:ALA:CB	2.20	0.48
1:A:53:LEU:CD2	1:A:54:ASN:N	2.55	0.48
4:P:185:CYS:SG	4:P:191:ALA:N	2.86	0.48
9:U:61:ASP:C	9:U:63:GLY:N	2.66	0.48
2:B:806:THR:HG22	2:B:808:ALA:HB3	1.95	0.48
7:G:126:ASN:C	7:G:126:ASN:ND2	2.67	0.48
7:G:139:ILE:CG2	7:G:140:LYS:N	2.76	0.48
2:B:336:ARG:HG3	2:B:336:ARG:NH1	2.28	0.48
1:A:1123:GLY:O	1:A:1125:ALA:N	2.46	0.48
4:D:56:ARG:HD3	4:D:149:THR:HA	1.96	0.48
2:B:39:ARG:NH2	2:B:665:GLU:CG	2.75	0.48
1:M:390:GLN:O	1:M:394:ASN:HB2	2.12	0.48
4:D:12:ARG:HH12	4:D:14:ARG:HA	1.78	0.48
2:B:479:VAL:O	2:B:480:SER:HB3	2.12	0.48
3:O:213:PRO:HG2	3:O:214:ASN:H	1.78	0.48
1:A:186:LYS:HZ1	1:A:197:PRO:HD3	1.78	0.48
3:O:114:TYR:HB2	3:O:116:LYS:HG2	1.94	0.48
1:M:162:VAL:HG12	1:M:163:SER:H	1.78	0.48
1:M:946:VAL:HG22	5:Q:201:LYS:HD2	1.94	0.48
8:H:109:LYS:HG2	8:H:110:ASP:OD1	2.13	0.48
3:C:33:LEU:O	3:C:37:MET:HG3	2.12	0.48
2:N:97:VAL:HG12	2:N:97:VAL:O	2.13	0.48
1:M:996:ASN:HA	1:M:998:LEU:CD1	2.44	0.48
1:A:69:THR:C	1:A:71:GLN:N	2.65	0.48
4:P:154:PHE:CE1	4:P:163:VAL:CG2	2.96	0.48
2:B:594:ALA:CA	2:B:617:ARG:NH1	2.76	0.48
2:N:642:ASP:HB3	2:N:649:LYS:HG3	1.95	0.48
12:L:59:ALA:O	12:L:60:ARG:O	2.32	0.48
3:O:177:GLU:CG	3:O:231:ASN:HB3	2.27	0.48
8:T:81:PRO:CB	8:T:82:PRO:CD	2.88	0.48
2:B:918:ILE:HD12	2:B:935:ARG:NH1	2.28	0.48
12:L:47:ARG:CG	12:L:48:CYS:H	2.26	0.48
3:C:133:ILE:CD1	3:C:236:GLY:C	2.82	0.48
1:A:476:SER:HB2	1:A:477:PRO:HD3	1.95	0.48
1:M:829:VAL:HG21	2:N:508:LEU:HD13	1.95	0.48
2:B:889:THR:O	2:B:889:THR:HG22	2.13	0.48
2:N:1116:ARG:HG3	2:N:1198:TYR:CG	2.48	0.48
11:K:47:ARG:CB	11:K:47:ARG:HH11	2.21	0.48
1:M:738:LYS:HD3	1:M:738:LYS:H	1.78	0.48
1:A:1313:LEU:HD23	1:A:1338:VAL:CG2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1011:GLN:NE2	1:A:1015:VAL:CG2	2.76	0.48
1:M:1124:HIS:HB2	1:M:1130:GLN:HG2	1.93	0.48
1:A:1148:ILE:CG1	1:A:1198:ASP:HB2	2.43	0.48
9:I:7:CYS:SG	9:I:8:ARG:O	2.72	0.48
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.49	0.48
2:N:212:LEU:HD23	2:N:480:SER:HB2	1.95	0.48
1:M:370:ILE:HG22	1:M:374:LEU:HD12	1.95	0.48
1:A:463:ILE:HD11	1:A:469:ARG:HG3	1.96	0.48
4:P:139:LYS:O	4:P:143:ASN:ND2	2.46	0.48
4:P:189:ASP:OD2	7:S:167:TYR:HE1	1.96	0.48
3:C:63:ILE:HA	3:C:66:ARG:HG3	1.95	0.48
12:L:26:THR:C	12:L:27:LEU:HD23	2.34	0.48
12:X:38:LEU:HD11	12:X:49:LYS:HE2	1.96	0.48
1:M:1259:MET:HA	1:M:1262:LYS:CD	2.37	0.48
2:B:557:PHE:HD2	2:B:557:PHE:O	1.96	0.48
2:B:878:GLN:HA	2:B:885:MET:SD	2.53	0.48
12:L:30:ILE:CG2	12:L:31:CYS:N	2.76	0.48
7:S:116:PRO:CG	7:S:119:LEU:HB2	2.43	0.48
2:N:1096:ARG:NH1	2:N:1096:ARG:HB2	2.28	0.48
4:D:156:ASP:CB	4:D:159:THR:HG23	2.44	0.48
4:D:71:LYS:CA	4:D:74:GLN:HB2	2.39	0.48
8:T:61:SER:HB3	8:T:139:ASN:HB3	1.96	0.48
2:N:1099:VAL:HG13	2:N:1100:ASP:N	2.29	0.48
1:A:332:LYS:O	1:A:333:GLU:CB	2.61	0.48
11:W:53:ASP:OD2	11:W:81:TYR:OH	2.28	0.48
5:Q:129:PRO:O	5:Q:130:ALA:C	2.52	0.48
1:A:967:ALA:O	1:A:971:PHE:HD1	1.97	0.48
2:B:522:VAL:HG11	2:B:537:LYS:HB3	1.95	0.48
3:C:260:LEU:O	3:C:263:THR:HB	2.13	0.48
1:M:392:VAL:HG13	1:M:415:LEU:HD11	1.95	0.48
2:N:780:VAL:HG11	10:V:56:LEU:HD13	1.96	0.48
1:A:65:LEU:O	1:A:66:LYS:O	2.31	0.48
4:P:209:ARG:HA	4:P:212:LYS:CD	2.43	0.48
2:N:604:ARG:C	2:N:606:LYS:H	2.16	0.48
1:A:344:ARG:CB	1:A:344:ARG:HH11	2.12	0.48
2:B:552:MET:C	2:B:554:ILE:H	2.17	0.48
3:C:236:GLY:O	3:C:238:ILE:N	2.46	0.48
1:M:821:ARG:O	1:M:825:ILE:HG13	2.13	0.48
1:M:316:GLN:HG2	1:M:317:LYS:N	2.28	0.48
3:O:242:GLN:C	3:O:244:VAL:H	2.16	0.48
1:M:1109:LYS:HG3	1:M:1110:ASN:ND2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1020:ARG:HB2	2:N:1022:THR:HG22	1.96	0.48
8:T:24:CYS:HB2	8:T:44:VAL:CG2	2.42	0.48
14:2:4:DA:H2"	14:2:5:DC:C6	2.48	0.48
4:D:56:ARG:CA	4:D:148:LEU:HD13	2.43	0.48
1:A:870:GLU:HG2	5:E:208:TYR:CG	2.47	0.48
6:F:69:LEU:HB3	6:F:71:GLU:CG	2.44	0.48
1:M:1121:GLU:HB3	1:M:1124:HIS:CD2	2.48	0.48
1:A:523:ILE:HG13	1:A:622:VAL:CG2	2.43	0.48
8:H:61:SER:O	8:H:62:SER:HB2	2.13	0.48
7:G:1:MET:HE1	7:G:80:LYS:H	1.78	0.48
1:A:321:PRO:O	1:A:322:VAL:CB	2.61	0.48
3:C:44:LEU:HD21	3:C:159:ALA:HB1	1.95	0.48
1:A:1410:PHE:HD2	2:B:1212:ILE:HD11	1.79	0.48
1:A:332:LYS:C	1:A:334:GLY:N	2.66	0.48
1:M:1202:MET:HE1	1:M:1212:VAL:CG2	2.44	0.48
11:W:53:ASP:HB3	11:W:56:VAL:CG2	2.44	0.48
2:N:552:MET:C	2:N:554:ILE:H	2.17	0.48
2:B:446:LEU:HG	2:B:446:LEU:O	2.13	0.48
1:A:95:PHE:O	1:A:96:ILE:C	2.51	0.48
9:U:77:LYS:O	9:U:79:HIS:N	2.46	0.48
7:S:43:GLY:HA2	7:S:157:ILE:HD11	1.95	0.48
2:N:110:HIS:CB	12:X:54:ARG:HH22	2.27	0.48
1:A:41:MET:O	1:A:42:ASP:O	2.30	0.48
4:P:209:ARG:HA	4:P:212:LYS:HE3	1.96	0.48
2:N:558:LEU:O	2:N:560:GLU:N	2.47	0.48
2:B:798:TYR:CD2	2:B:798:TYR:N	2.81	0.48
1:M:565:ILE:CG2	1:M:567:LYS:HE2	2.43	0.48
12:X:38:LEU:HG	12:X:39:SER:N	2.29	0.48
5:E:55:ARG:CD	5:E:113:GLN:HE21	2.27	0.48
2:B:872:GLU:CD	2:B:914:LYS:HE2	2.34	0.48
6:R:90:ARG:HG3	6:R:91:ALA:N	2.27	0.48
1:M:902:LEU:CG	1:M:926:GLN:HG3	2.34	0.48
5:Q:94:LYS:HE2	5:Q:98:ILE:CG1	2.43	0.48
1:A:933:TYR:O	1:A:933:TYR:CD2	2.67	0.48
3:O:97:VAL:HG21	3:O:129:ILE:CG2	2.44	0.48
11:K:57:LEU:HD11	11:K:78:THR:HA	1.96	0.48
1:A:1315:GLU:O	1:A:1317:MET:N	2.46	0.48
1:A:963:ILE:HD11	1:A:1049:ILE:N	2.29	0.48
4:D:29:LEU:HD12	7:G:82:PHE:CZ	2.49	0.48
2:B:221:ASN:OD1	2:B:242:SER:HA	2.14	0.48
1:A:1268:LEU:CD1	9:I:48:LEU:HD11	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:44:TYR:N	10:J:44:TYR:CD2	2.74	0.48
5:E:69:ILE:HD12	5:E:69:ILE:N	2.29	0.48
2:B:110:HIS:CB	12:L:54:ARG:HH22	2.25	0.48
2:B:659:ALA:HA	2:B:662:MET:HE2	1.96	0.48
9:I:19:ASP:CB	9:I:24:ARG:HG2	2.42	0.48
2:N:216:GLU:HB2	2:N:406:LEU:CD2	2.43	0.48
1:M:1332:PHE:CE1	1:M:1381:LEU:HD13	2.49	0.48
7:S:12:THR:O	7:S:12:THR:HG22	2.13	0.48
3:O:226:ASP:O	3:O:227:THR:HB	2.14	0.48
3:O:98:VAL:HG13	3:O:157:CYS:O	2.14	0.48
2:N:629:ASP:HB3	2:N:632:ARG:HD3	1.96	0.48
2:N:944:THR:HG21	2:N:1122:ARG:NH2	2.28	0.48
4:P:119:ARG:HB2	4:P:221:TYR:CZ	2.48	0.48
2:B:579:ARG:CB	2:B:586:TRP:HE1	2.10	0.48
12:L:40:LEU:HD22	12:L:44:ASP:OD2	2.13	0.48
8:T:135:LEU:HD13	8:T:137:GLN:NE2	2.29	0.48
1:A:709:THR:CG2	1:A:710:LEU:H	2.25	0.48
2:N:128:LEU:HB2	2:N:168:GLY:O	2.13	0.48
2:N:448:ILE:O	2:N:450:ALA:N	2.46	0.48
2:N:822:ASN:ND2	10:V:52:THR:HG21	2.29	0.48
1:A:929:LEU:HD21	1:A:983:ILE:CG2	2.43	0.48
2:N:582:VAL:O	2:N:582:VAL:HG12	2.13	0.48
1:M:899:VAL:CG2	1:M:908:LEU:HD21	2.43	0.48
4:D:216:ASN:C	4:D:218:GLU:H	2.16	0.48
1:M:164:ARG:CG	1:M:165:GLY:N	2.75	0.48
2:N:996:ARG:NH1	3:O:174:ALA:HA	2.27	0.48
2:N:1110:PRO:C	2:N:1119:VAL:HG13	2.34	0.48
1:A:1254:ALA:O	1:A:1255:GLU:HB3	2.13	0.48
1:A:1193:LEU:HD12	1:A:1193:LEU:C	2.35	0.48
5:E:29:PHE:HA	5:E:65:THR:HG22	1.95	0.48
7:S:9:LEU:HD12	7:S:10:ASN:N	2.28	0.48
1:A:1025:ARG:NH1	1:A:1025:ARG:HG3	2.28	0.48
1:A:1150:SER:O	1:A:1151:GLU:HG3	2.14	0.48
1:A:728:LYS:HA	1:A:731:ARG:CZ	2.43	0.48
7:S:132:SER:HB3	7:S:135:ASP:H	1.79	0.48
1:A:598:LEU:O	1:A:598:LEU:HD23	2.13	0.48
10:V:6:ARG:HA	10:V:12:LYS:O	2.14	0.48
7:G:7:LEU:CB	7:G:74:TYR:HE2	2.26	0.48
5:Q:177:ARG:HD3	5:Q:215:MET:CG	2.43	0.48
2:B:273:LEU:HB2	2:B:276:ILE:HD12	1.95	0.48
2:B:848:ARG:HD3	10:J:11:GLY:HA2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:116:ILE:HG22	5:Q:120:ALA:HB3	1.96	0.48
1:M:399:HIS:CG	1:M:400:PRO:N	2.81	0.48
7:S:7:LEU:HB2	7:S:74:TYR:HE2	1.74	0.48
2:N:875:GLU:O	2:N:877:PRO:HD3	2.14	0.48
2:N:853:SER:OG	2:N:1094:ARG:NH1	2.47	0.48
1:A:250:ILE:CG2	1:A:250:ILE:O	2.59	0.48
2:B:654:ARG:O	2:B:657:HIS:N	2.47	0.48
5:Q:207:ARG:CB	5:Q:207:ARG:NH1	2.77	0.48
1:M:1313:LEU:HD23	1:M:1338:VAL:HG21	1.95	0.48
1:M:1315:GLU:O	1:M:1317:MET:N	2.47	0.48
3:C:3:GLU:CD	3:C:4:GLU:HG3	2.35	0.48
1:M:1333:ILE:O	1:M:1337:GLU:HG3	2.14	0.48
3:C:89:GLU:HG2	3:C:89:GLU:O	2.14	0.48
1:M:477:PRO:CG	1:M:521:MET:HG2	2.43	0.48
3:C:253:LYS:O	3:C:256:ALA:HB3	2.14	0.48
1:A:42:ASP:HB3	1:A:45:GLN:HA	1.95	0.48
4:P:209:ARG:HA	4:P:212:LYS:CE	2.44	0.48
1:M:43:GLU:OE2	1:M:48:ALA:CB	2.62	0.48
7:S:1:MET:O	7:S:3:PHE:CE2	2.67	0.48
10:J:64:ASN:CB	10:J:65:PRO:HD3	2.42	0.48
2:N:806:THR:HG22	2:N:808:ALA:HB3	1.96	0.48
2:B:240:ILE:O	2:B:240:ILE:HG23	2.14	0.48
1:M:1116:LEU:HD12	1:M:1116:LEU:C	2.35	0.48
2:B:999:MET:HE2	2:B:1000:PRO:CD	2.43	0.48
7:S:13:LEU:HD22	7:S:17:PHE:HB2	1.90	0.48
1:M:385:ILE:HG22	1:M:386:ASP:N	2.29	0.48
1:M:102:VAL:CG1	1:M:211:PHE:HE1	2.27	0.48
5:Q:48:ASP:CG	5:Q:49:SER:N	2.64	0.48
2:N:27:ALA:O	2:N:29:ASP:N	2.47	0.48
2:B:221:ASN:N	2:B:241:ARG:O	2.40	0.48
6:F:69:LEU:HD22	6:F:71:GLU:OE1	2.14	0.48
10:J:42:LYS:HG2	10:J:43:ARG:N	2.28	0.48
11:K:109:TRP:O	11:K:112:GLN:HB2	2.13	0.48
2:B:237:VAL:HG22	2:B:257:LYS:HA	1.96	0.48
11:K:21:ILE:HG12	11:K:33:ILE:HG12	1.94	0.48
1:A:504:LEU:CD1	6:F:91:ALA:HB2	2.44	0.48
2:B:429:PHE:CD1	2:B:432:MET:HE3	2.49	0.48
5:E:128:PRO:HA	5:E:129:PRO:O	2.14	0.48
3:O:99:LEU:CD2	3:O:99:LEU:N	2.76	0.48
2:B:1182:CYS:SG	2:B:1182:CYS:O	2.72	0.48
1:A:175:ARG:HG2	1:A:182:VAL:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:S:26:LEU:HD12	7:S:56:ILE:CD1	2.43	0.48
1:M:845:LEU:O	1:M:846:GLU:C	2.52	0.48
1:M:846:GLU:OE1	1:M:1425:SER:OG	2.32	0.48
1:M:1166:ASP:OD1	1:M:1194:ARG:NH2	2.45	0.47
2:N:642:ASP:HB3	2:N:649:LYS:HD2	1.96	0.47
8:T:87:ARG:O	8:T:89:LEU:HD23	2.14	0.47
1:A:822:GLU:HG3	2:B:513:GLN:HE21	1.79	0.47
5:E:2:ASP:C	5:E:3:GLN:HG2	2.35	0.47
2:B:886:LYS:HE2	2:B:940:PRO:CD	2.43	0.47
1:A:1341:ILE:HG23	1:A:1342:GLU:N	2.28	0.47
5:E:182:ASP:HB3	5:E:185:ALA:HB2	1.96	0.47
2:N:889:THR:O	2:N:889:THR:HG22	2.13	0.47
6:F:81:THR:HB	6:F:136:ARG:NH1	2.29	0.47
2:N:244:LEU:CD1	2:N:250:PHE:HD1	2.27	0.47
1:A:1313:LEU:C	1:A:1315:GLU:N	2.67	0.47
4:D:217:LEU:O	4:D:219:THR:N	2.47	0.47
1:M:332:LYS:O	1:M:333:GLU:CB	2.59	0.47
10:J:36:LEU:HD11	10:J:51:LEU:HB2	1.96	0.47
1:A:1203:ASN:O	1:A:1204:ASP:C	2.52	0.47
2:B:433:GLN:O	2:B:434:ARG:HG3	2.14	0.47
2:B:1156:ASP:HB3	2:B:1197:PRO:HA	1.96	0.47
2:N:519:TRP:CD1	2:N:519:TRP:C	2.87	0.47
4:P:122:GLU:HA	4:P:125:SER:OG	2.14	0.47
1:A:1350:LYS:O	1:A:1354:ASN:ND2	2.46	0.47
1:A:544:ASP:CG	1:A:545:GLN:N	2.67	0.47
1:A:565:ILE:HG23	1:A:567:LYS:CG	2.38	0.47
4:P:126:ILE:HD13	4:P:145:MET:CE	2.44	0.47
4:P:56:ARG:HH21	4:P:155:ARG:CG	2.21	0.47
2:B:798:TYR:HE2	3:C:62:PHE:CZ	2.32	0.47
1:M:107:CYS:CB	1:M:171:GLN:HE22	2.27	0.47
2:B:278:GLN:CG	2:B:279:ASP:N	2.78	0.47
1:M:690:VAL:CG2	1:M:718:VAL:HG13	2.44	0.47
1:M:902:LEU:CD2	1:M:923:LEU:HD23	2.45	0.47
14:5:4:DA:H2''	14:5:5:DC:C6	2.48	0.47
9:U:7:CYS:HB2	9:U:34:TYR:CG	2.49	0.47
4:P:173:HIS:ND1	4:P:175:PHE:N	2.46	0.47
1:A:961:ARG:HH11	1:A:961:ARG:CG	2.27	0.47
2:B:658:ILE:HG22	2:B:659:ALA:N	2.28	0.47
1:A:845:LEU:O	1:A:846:GLU:C	2.52	0.47
7:G:91:VAL:HG12	7:G:92:VAL:N	2.29	0.47
15:3:5:C:H2'	15:3:6:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:449:ASN:C	2:B:451:LYS:H	2.17	0.47
1:M:946:VAL:HG22	5:Q:201:LYS:HB3	1.96	0.47
1:A:1135:ARG:HG2	1:A:1136:SER:N	2.27	0.47
1:A:1217:LYS:O	1:A:1221:LYS:HA	2.13	0.47
1:A:688:LYS:HG3	1:A:691:LEU:HD23	1.96	0.47
4:P:190:GLU:HA	7:S:167:TYR:CE1	2.48	0.47
1:A:168:GLY:O	1:A:169:ASN:C	2.51	0.47
5:E:108:GLY:O	5:E:132:ILE:HG23	2.15	0.47
12:L:33:GLU:OE1	12:L:55:ILE:HD11	2.15	0.47
1:A:1397:LEU:HB2	1:A:1426:GLU:OE1	2.14	0.47
2:B:131:ASP:HA	2:B:164:LYS:HB3	1.96	0.47
1:M:407:ARG:HG2	1:M:430:TRP:CH2	2.48	0.47
7:S:74:TYR:H	7:S:74:TYR:HD2	1.62	0.47
1:A:93:VAL:CG2	1:A:301:ALA:HA	2.42	0.47
14:2:3:DT:C2	14:2:4:DA:N7	2.82	0.47
1:A:1006:ILE:HD11	5:E:163:GLU:CG	2.41	0.47
2:N:515:HIS:HD2	2:N:517:THR:HG23	1.76	0.47
1:M:1127:ASP:CG	1:M:1130:GLN:HB2	2.34	0.47
3:O:184:ASN:OD1	3:O:187:LYS:HA	2.15	0.47
3:C:241:ASP:HB3	11:K:109:TRP:CE2	2.49	0.47
10:J:7:CYS:CB	10:J:49:MET:HE3	2.43	0.47
1:M:1048:ASN:N	1:M:1048:ASN:HD22	2.10	0.47
2:N:378:LEU:HD12	2:N:378:LEU:O	2.13	0.47
2:N:95:ILE:HG13	2:N:130:VAL:CG2	2.43	0.47
1:A:463:ILE:HB	1:A:464:PRO:HD2	1.96	0.47
5:Q:162:ARG:HH11	5:Q:162:ARG:HG2	1.78	0.47
2:B:1006:ILE:HG13	2:B:1006:ILE:H	1.41	0.47
3:C:226:ASP:O	3:C:227:THR:HB	2.14	0.47
1:A:568:PRO:CB	3:C:221:TYR:OH	2.62	0.47
2:N:604:ARG:CB	2:N:609:ILE:HG13	2.44	0.47
12:L:38:LEU:CG	12:L:39:SER:N	2.77	0.47
5:E:94:LYS:HE2	5:E:98:ILE:CD1	2.27	0.47
1:M:353:ILE:HG22	1:M:468:PHE:HB2	1.96	0.47
12:X:38:LEU:CG	12:X:39:SER:N	2.77	0.47
5:Q:153:HIS:C	5:Q:154:ILE:HG13	2.32	0.47
1:M:13:THR:HB	1:M:1432:GLN:NE2	2.29	0.47
2:B:244:LEU:CD1	2:B:250:PHE:HD1	2.27	0.47
2:N:244:LEU:HD12	2:N:250:PHE:HD1	1.79	0.47
2:N:1201:LYS:CE	2:N:1205:GLN:OE1	2.59	0.47
1:M:472:LEU:O	1:M:475:THR:CB	2.58	0.47
1:A:789:LYS:HD2	2:B:620:ARG:HH12	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:209:ARG:HA	4:D:212:LYS:CD	2.43	0.47
2:N:35:SER:O	2:N:39:ARG:HG3	2.13	0.47
2:B:33:VAL:O	2:B:36:ALA:HB3	2.14	0.47
2:N:1110:PRO:O	2:N:1119:VAL:HG13	2.14	0.47
5:Q:145:THR:HG21	5:Q:187:TYR:CE2	2.49	0.47
13:1:25:DG:N9	13:1:26:DT:H72	2.30	0.47
2:B:408:LEU:N	2:B:408:LEU:HD12	2.29	0.47
7:G:88:ASP:OD2	7:G:88:ASP:N	2.46	0.47
2:N:124:TYR:HH	2:N:179:CYS:HG	1.56	0.47
1:M:1332:PHE:HE1	1:M:1381:LEU:HD13	1.79	0.47
2:B:1197:PRO:O	2:B:1200:ALA:N	2.44	0.47
4:P:58:VAL:HG11	7:S:4:ILE:HD11	1.95	0.47
2:N:251:ILE:HG22	2:N:251:ILE:O	2.15	0.47
7:S:146:LYS:HD2	7:S:165:GLU:HG3	1.95	0.47
9:I:77:LYS:O	9:I:79:HIS:N	2.47	0.47
2:B:1050:ILE:HG22	2:B:1051:THR:N	2.28	0.47
1:A:761:MET:HA	1:A:804:TYR:HB2	1.96	0.47
2:N:1079:LYS:HA	3:O:27:LEU:HD21	1.96	0.47
1:A:61:ILE:HG22	1:A:62:ASP:H	1.79	0.47
4:P:216:ASN:O	4:P:218:GLU:N	2.48	0.47
2:N:642:ASP:CB	2:N:649:LYS:HG3	2.44	0.47
1:A:285:PRO:O	1:A:287:HIS:N	2.47	0.47
4:P:12:ARG:HD3	4:P:14:ARG:CG	2.43	0.47
1:M:820:GLY:O	1:M:823:GLY:N	2.48	0.47
2:N:805:THR:CG2	2:N:806:THR:H	2.18	0.47
1:A:709:THR:HG23	9:I:94:ASP:HA	1.97	0.47
2:B:335:GLY:O	2:B:336:ARG:HG3	2.13	0.47
7:S:120:THR:HG23	7:S:131:GLN:O	2.14	0.47
1:A:381:THR:CG2	1:A:382:PRO:HD2	2.44	0.47
2:N:878:GLN:HA	2:N:885:MET:SD	2.55	0.47
2:B:227:LYS:HE2	2:B:236:HIS:CE1	2.49	0.47
2:N:835:GLN:HE21	2:N:835:GLN:HB2	1.48	0.47
1:A:1313:LEU:C	1:A:1315:GLU:H	2.17	0.47
2:N:43:LEU:HD11	2:N:811:TYR:O	2.14	0.47
1:A:946:VAL:CG2	5:E:201:LYS:HD2	2.42	0.47
4:P:7:THR:HG23	4:P:7:THR:O	2.15	0.47
1:M:335:ARG:NH1	2:N:1202:LEU:HD13	2.29	0.47
10:J:30:LEU:HD21	10:J:38:ARG:NH1	2.29	0.47
3:O:99:LEU:N	3:O:99:LEU:HD22	2.30	0.47
2:N:831:SER:HB2	2:N:833:TYR:HD1	1.79	0.47
1:M:354:SER:HA	1:M:482:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:122:GLU:HA	4:D:125:SER:OG	2.15	0.47
8:H:81:PRO:HB3	8:H:82:PRO:HD2	1.96	0.47
12:X:33:GLU:OE1	12:X:55:ILE:HD11	2.15	0.47
1:M:56:PRO:O	1:M:57:ARG:CG	2.61	0.47
1:M:60:SER:OG	1:M:61:ILE:N	2.48	0.47
2:B:617:ARG:HH22	9:I:61:ASP:CG	2.18	0.47
10:J:53:HIS:CD2	10:J:54:VAL:H	2.31	0.47
1:M:1389:PHE:C	1:M:1391:ARG:H	2.18	0.47
2:N:277:LYS:HE2	2:N:336:ARG:C	2.35	0.47
4:P:67:ARG:HG2	4:P:67:ARG:O	2.15	0.47
1:M:255:SER:OG	2:N:918:ILE:HD13	2.14	0.47
4:D:69:ALA:C	4:D:71:LYS:H	2.17	0.47
1:A:1041:ALA:O	1:A:1045:VAL:HG23	2.15	0.47
3:O:254:LYS:O	3:O:258:ILE:HD13	2.15	0.47
2:N:211:VAL:HG23	2:N:483:LEU:HB2	1.97	0.47
2:N:247:GLY:H	2:N:249:ARG:HH21	1.63	0.47
2:N:121:ASN:ND2	2:N:207:GLY:HA3	2.28	0.47
1:A:1100:ARG:NH2	1:A:1351:GLU:HG2	2.30	0.47
7:G:87:VAL:HG23	7:G:103:VAL:HG21	1.97	0.47
5:Q:60:PHE:CD1	5:Q:60:PHE:C	2.87	0.47
6:F:152:ILE:HG22	6:F:153:VAL:N	2.29	0.47
1:M:12:ARG:HD2	2:N:1218:THR:HB	1.96	0.47
2:N:785:TYR:CD1	2:N:786:ASN:N	2.82	0.47
3:C:196:ASP:OD1	3:C:198:ALA:HB3	2.15	0.47
3:C:196:ASP:CG	3:C:199:LYS:HD3	2.35	0.47
1:A:75:ASN:O	1:A:76:GLU:HB2	2.15	0.47
4:P:187:THR:C	4:P:189:ASP:N	2.66	0.47
4:P:191:ALA:C	4:P:193:THR:H	2.18	0.47
2:B:558:LEU:O	2:B:560:GLU:N	2.48	0.47
1:M:69:THR:C	1:M:71:GLN:N	2.67	0.47
2:B:597:MET:SD	2:B:617:ARG:HB2	2.55	0.47
2:B:594:ALA:HA	2:B:617:ARG:HH11	1.80	0.47
2:N:641:GLU:OE1	2:N:641:GLU:HA	2.15	0.47
2:B:102:VAL:CG2	2:B:112:LEU:HD22	2.44	0.47
7:G:111:THR:CG2	7:G:114:LEU:HB2	2.25	0.47
2:B:807:ARG:HD3	2:B:1043:ASP:OD1	2.15	0.47
2:B:189:LEU:HA	2:B:192:LEU:HD12	1.96	0.47
2:B:115:GLN:HG2	2:B:193:LYS:CB	2.44	0.47
1:M:1342:GLU:OE2	5:Q:212:ARG:NH1	2.46	0.47
2:B:996:ARG:NH1	3:C:174:ALA:HA	2.20	0.47
2:N:417:PHE:HE1	2:N:453:ILE:HG21	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:689:LYS:O	1:M:693:VAL:HG23	2.14	0.47
1:M:401:GLY:N	1:M:435:HIS:HD2	2.13	0.47
1:A:899:VAL:HG22	1:A:908:LEU:HD21	1.95	0.47
5:E:191:LYS:O	5:E:192:ARG:C	2.52	0.47
1:M:675:THR:HG21	1:M:736:ASN:HB2	1.96	0.47
1:A:407:ARG:HG2	1:A:430:TRP:CH2	2.49	0.47
2:N:889:THR:HG23	2:N:891:ASP:HB2	1.97	0.47
3:C:73:GLN:NE2	3:C:75:MET:N	2.62	0.47
2:B:953:LEU:O	2:B:964:VAL:HG23	2.14	0.47
5:E:204:THR:CG2	5:E:205:SER:N	2.77	0.47
2:N:661:LEU:HD23	2:N:679:TYR:O	2.14	0.47
1:A:310:GLY:O	1:A:312:PRO:CD	2.60	0.47
4:D:12:ARG:NH1	4:D:14:ARG:CA	2.78	0.47
1:M:460:VAL:HG12	1:M:461:LYS:N	2.30	0.47
1:A:305:ASP:OD1	1:A:306:ASN:N	2.47	0.47
1:M:1345:ARG:HG2	1:M:1372:VAL:CG1	2.45	0.47
1:A:1193:LEU:HB2	1:A:1260:LEU:HD11	1.96	0.47
1:M:963:ILE:HD13	1:M:1049:ILE:HG13	1.96	0.47
6:R:119:ARG:HH11	6:R:119:ARG:CG	2.28	0.47
1:M:1148:ILE:O	1:M:1148:ILE:HG22	2.15	0.47
2:B:487:THR:CG2	2:B:488:TYR:N	2.78	0.47
2:N:483:LEU:HD11	2:N:491:THR:CG2	2.45	0.47
3:C:213:PRO:HG2	3:C:214:ASN:H	1.80	0.47
1:M:1257:ASP:HA	1:M:1260:LEU:HB3	1.97	0.47
10:J:9:SER:CB	10:J:45:CYS:HB2	2.45	0.47
1:A:1280:GLU:HB3	1:A:1281:ARG:H	1.59	0.47
1:A:1450:LEU:HG	1:A:1450:LEU:O	2.15	0.47
2:B:118:ARG:HH22	2:B:194:GLU:CD	2.18	0.47
3:C:89:GLU:O	3:C:90:ASP:HB3	2.14	0.47
1:A:949:ASP:OD1	1:A:951:GLU:HB2	2.14	0.47
1:M:378:GLU:OE1	1:M:434:ARG:HD3	2.14	0.47
4:P:161:GLY:O	4:P:165:GLN:HG3	2.14	0.47
1:A:1050:GLU:O	1:A:1054:LEU:HD12	2.14	0.47
8:T:113:ALA:HA	8:T:125:LEU:O	2.14	0.47
1:A:765:VAL:HB	1:A:800:VAL:CG1	2.45	0.47
9:I:10:CYS:SG	9:I:32:CYS:HB3	2.54	0.47
1:A:71:GLN:C	1:A:73:GLY:N	2.68	0.47
4:P:194:LEU:C	4:P:195:ILE:HG13	2.34	0.47
8:H:99:GLY:HA3	8:H:118:PHE:CD2	2.49	0.47
2:B:863:GLU:OE1	2:B:962:LYS:HB2	2.15	0.47
3:C:238:ILE:HG23	3:C:242:GLN:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:242:GLN:C	3:C:244:VAL:H	2.17	0.47
6:R:103:MET:O	6:R:104:ASN:HB2	2.13	0.47
2:N:428:ILE:HG22	2:N:432:MET:HE2	1.97	0.47
2:N:90:ILE:HD11	2:N:432:MET:SD	2.55	0.47
2:N:273:LEU:CD1	2:N:280:ILE:HD12	2.37	0.47
6:R:111:LEU:C	6:R:113:GLY:N	2.66	0.47
1:M:416:ARG:HG3	1:M:416:ARG:HH11	1.79	0.47
2:N:1039:GLY:HA2	10:V:51:LEU:HD22	1.97	0.47
3:O:3:GLU:OE1	3:O:4:GLU:N	2.47	0.47
2:N:20:ASP:C	2:N:22:SER:H	2.12	0.47
1:A:321:PRO:O	1:A:322:VAL:CG1	2.63	0.47
1:M:962:ARG:C	1:M:964:ILE:N	2.68	0.47
1:M:523:ILE:HG13	1:M:622:VAL:HG22	1.97	0.47
1:A:134:ARG:HG2	1:A:138:ILE:HD11	1.97	0.47
1:M:305:ASP:OD1	1:M:306:ASN:N	2.48	0.47
1:A:364:VAL:O	1:A:364:VAL:HG13	2.15	0.47
11:W:12:LEU:HD12	11:W:37:LYS:CG	2.45	0.47
1:A:144:THR:O	1:A:146:MET:HG3	2.14	0.47
1:A:909:ASP:OD1	1:A:911:SER:N	2.41	0.47
4:P:154:PHE:HE1	4:P:163:VAL:CG1	2.26	0.47
1:M:1259:MET:HE1	1:M:1262:LYS:HB2	1.97	0.47
2:B:604:ARG:C	2:B:606:LYS:H	2.18	0.47
5:Q:177:ARG:HB3	5:Q:215:MET:HG2	1.96	0.47
1:A:477:PRO:CG	1:A:521:MET:HG2	2.45	0.47
2:N:167:ILE:HA	2:N:450:ALA:HB1	1.94	0.47
2:N:58:THR:O	2:N:62:ILE:HG13	2.15	0.47
9:I:74:GLU:HA	9:I:80:SER:O	2.15	0.47
5:E:147:HIS:CD2	5:E:148:GLU:N	2.83	0.47
1:M:322:VAL:O	1:M:322:VAL:HG13	2.15	0.47
5:E:144:ILE:HD13	5:E:183:PRO:HB3	1.97	0.47
3:O:186:LEU:N	3:O:186:LEU:HD12	2.29	0.47
1:A:675:THR:OG1	1:A:736:ASN:ND2	2.47	0.47
2:N:235:SER:C	2:N:236:HIS:CD2	2.88	0.47
3:O:259:LEU:CD2	11:W:91:CYS:HB3	2.45	0.47
1:M:845:LEU:HD12	1:M:1069:ALA:HB2	1.96	0.47
1:A:100:LYS:HE2	1:A:104:GLU:OE2	2.14	0.47
2:N:371:GLU:N	2:N:371:GLU:OE1	2.47	0.47
2:N:224:GLN:HA	2:N:396:ASP:OD2	2.15	0.47
1:M:175:ARG:HG2	1:M:182:VAL:HG12	1.97	0.47
1:M:645:LEU:HD11	1:M:649:ILE:HD11	1.97	0.47
1:A:53:LEU:O	1:A:54:ASN:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:67:CYS:O	1:A:68:GLN:HG3	2.15	0.47
1:A:75:ASN:HD22	2:B:1116:ARG:HH12	1.62	0.47
4:P:60:LYS:O	4:P:64:VAL:HG23	2.15	0.47
1:M:444:PHE:HE2	1:M:470:LEU:HD13	1.80	0.47
8:T:84:ALA:HA	8:T:87:ARG:HB2	1.97	0.47
1:A:1277:GLU:O	1:A:1279:ILE:N	2.47	0.47
3:C:147:LEU:CD2	3:C:147:LEU:N	2.75	0.47
1:A:472:LEU:HD13	2:B:835:GLN:OE1	2.15	0.47
2:B:222:ILE:N	2:B:240:ILE:HD12	2.30	0.47
2:B:906:SER:O	2:B:941:LEU:HD23	2.15	0.47
2:B:886:LYS:HB2	2:B:890:TYR:OH	2.15	0.47
2:N:792:MET:HA	2:N:856:PHE:O	2.15	0.47
2:B:172:ILE:HD13	2:B:178:ASN:ND2	2.30	0.47
1:A:868:TYR:CE1	1:A:1064:VAL:HG11	2.50	0.47
9:I:106:CYS:O	9:I:107:SER:HB2	2.14	0.47
1:A:1189:SER:O	1:A:1241:ARG:HD3	2.15	0.47
6:F:77:ASP:OD1	6:F:78:GLN:N	2.48	0.47
1:A:1438:THR:CG2	6:F:92:ARG:HD2	2.43	0.47
1:M:1207:LEU:CD1	1:M:1273:LEU:HD23	2.45	0.47
2:N:186:GLU:CG	10:V:62:ARG:HH22	2.28	0.47
2:N:258:LEU:O	2:N:258:LEU:CG	2.63	0.47
2:N:525:ALA:O	2:N:768:THR:HG23	2.15	0.47
7:S:26:LEU:HD12	7:S:56:ILE:HD11	1.97	0.47
1:M:879:GLU:O	1:M:955:PRO:HA	2.15	0.47
1:A:35:ILE:O	1:A:35:ILE:HG22	2.16	0.46
4:P:139:LYS:N	4:P:142:LYS:HE2	2.29	0.46
4:P:187:THR:HB	4:P:189:ASP:HB3	1.96	0.46
2:B:542:MET:HG2	2:B:747:MET:HE2	1.97	0.46
12:L:55:ILE:O	12:L:56:LEU:HB2	2.15	0.46
2:B:223:VAL:HG21	2:B:380:TYR:HE2	1.80	0.46
2:B:361:LEU:HD11	2:B:381:MET:HE1	1.96	0.46
1:A:1378:GLN:HG2	5:E:177:ARG:HH12	1.80	0.46
11:K:65:HIS:CD2	11:K:67:PHE:HB2	2.50	0.46
2:N:1156:ASP:HB3	2:N:1197:PRO:HA	1.96	0.46
1:M:1433:MET:CE	7:S:63:PRO:HB2	2.41	0.46
6:R:101:ILE:HD13	6:R:120:ILE:HG22	1.97	0.46
2:N:371:GLU:H	2:N:371:GLU:CD	2.18	0.46
2:B:376:PHE:CZ	2:B:569:TYR:HD2	2.33	0.46
1:A:984:LYS:HG2	1:A:988:LEU:HD12	1.97	0.46
2:N:171:PRO:HD2	2:N:457:LEU:CD1	2.46	0.46
8:T:38:LEU:HD12	8:T:124:ARG:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:707:PRO:CG	2:B:708:GLU:H	2.24	0.46
5:E:116:ILE:HG22	5:E:120:ALA:HB3	1.97	0.46
3:C:7:GLN:NE2	11:K:104:ASN:HD21	2.09	0.46
2:B:996:ARG:NH2	3:C:175:ALA:H	2.12	0.46
7:S:137:ILE:O	7:S:138:THR:OG1	2.32	0.46
5:Q:117:THR:HG22	5:Q:119:SER:N	2.19	0.46
2:B:980:PHE:CA	2:B:1095:LEU:HD11	2.45	0.46
1:M:413:ILE:HG21	1:M:424:ILE:HD11	1.98	0.46
3:O:236:GLY:O	3:O:238:ILE:N	2.48	0.46
2:B:470:LYS:O	2:B:472:ALA:N	2.48	0.46
1:M:1293:SER:HB3	1:M:1297:GLU:OE1	2.16	0.46
2:B:773:MET:HE2	2:B:985:GLY:HA2	1.97	0.46
2:N:637:LEU:HD22	2:N:742:GLU:HA	1.98	0.46
3:O:37:MET:HE3	3:O:176:ILE:HD13	1.98	0.46
3:O:18:VAL:O	3:O:20:PHE:HD2	1.98	0.46
1:A:741:ASN:ND2	1:A:743:VAL:N	2.63	0.46
5:Q:112:TYR:CD1	5:Q:112:TYR:C	2.89	0.46
1:A:1029:ARG:CG	1:A:1029:ARG:HH11	2.25	0.46
5:E:62:ALA:HB3	5:E:78:LEU:CD2	2.44	0.46
1:M:977:LYS:HB3	1:M:978:PRO:CD	2.45	0.46
2:N:274:PRO:CG	2:N:359:GLU:HB3	2.45	0.46
1:M:320:ARG:NE	1:M:323:LYS:NZ	2.64	0.46
1:M:1203:ASN:O	1:M:1204:ASP:C	2.53	0.46
4:D:60:LYS:O	4:D:64:VAL:HG23	2.15	0.46
1:M:1375:MET:HG2	1:M:1382:THR:O	2.15	0.46
2:N:193:LYS:HD3	2:N:787:VAL:HG11	1.96	0.46
1:A:61:ILE:HG22	1:A:62:ASP:N	2.31	0.46
2:B:1116:ARG:HG3	2:B:1198:TYR:CD1	2.50	0.46
1:M:34:LYS:HG3	1:M:36:ARG:NH2	2.29	0.46
1:M:33:ALA:HB1	1:M:56:PRO:HB2	1.97	0.46
2:B:617:ARG:HA	2:B:624:LEU:HD12	1.96	0.46
1:M:570:PRO:O	1:M:571:LEU:HD12	2.16	0.46
8:T:123:MET:HG2	8:T:124:ARG:N	2.30	0.46
1:A:444:PHE:CB	1:A:458:HIS:HD2	2.28	0.46
2:B:96:TYR:HE1	2:B:131:ASP:OD1	1.97	0.46
5:E:192:ARG:NH1	5:E:215:MET:O	2.49	0.46
3:O:133:ILE:CD1	3:O:237:SER:HA	2.45	0.46
1:M:253:ASN:ND2	2:N:884:ARG:CD	2.78	0.46
1:A:157:ASP:C	1:A:159:THR:H	2.18	0.46
4:D:219:THR:HG22	4:D:220:LEU:O	2.15	0.46
1:A:78:PRO:HA	2:B:1201:LYS:NZ	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:167:HIS:CE1	12:X:70:ARG:HA	2.50	0.46
3:C:18:VAL:O	3:C:20:PHE:HD2	1.98	0.46
3:O:258:ILE:HD12	3:O:258:ILE:N	2.30	0.46
11:W:55:LYS:CB	11:W:81:TYR:CD1	2.98	0.46
5:Q:207:ARG:HB3	5:Q:207:ARG:NH1	2.30	0.46
2:N:231:PRO:O	2:N:231:PRO:HG2	2.15	0.46
2:N:1068:GLY:O	2:N:1069:PHE:O	2.34	0.46
1:A:591:PHE:CD2	1:A:595:THR:HB	2.50	0.46
1:M:67:CYS:O	1:M:68:GLN:C	2.51	0.46
2:B:621:GLU:HG3	2:B:621:GLU:O	2.14	0.46
1:M:1255:GLU:HG2	1:M:1258:HIS:HB2	1.98	0.46
1:A:1277:GLU:O	1:A:1279:ILE:HG12	2.15	0.46
4:P:12:ARG:NH1	4:P:14:ARG:CA	2.79	0.46
5:E:50:MET:CG	5:E:52:ARG:HH21	2.26	0.46
2:B:859:TYR:OH	2:B:941:LEU:HD12	2.15	0.46
1:M:722:LEU:HD23	1:M:799:PHE:CG	2.51	0.46
2:B:168:GLY:HA2	2:B:450:ALA:O	2.15	0.46
2:B:205:ILE:N	2:B:205:ILE:CD1	2.78	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CD1	2.50	0.46
1:M:427:GLN:HB2	1:M:430:TRP:CG	2.51	0.46
1:A:382:PRO:CA	1:A:428:TYR:CE2	2.99	0.46
2:N:245:GLU:O	2:N:246:LYS:HG3	2.16	0.46
3:O:22:LEU:HG	3:O:25:VAL:HG21	1.98	0.46
1:M:254:GLU:HB2	2:N:935:ARG:HH21	1.77	0.46
1:M:1123:GLY:O	1:M:1125:ALA:N	2.49	0.46
9:U:86:PHE:CE1	9:U:100:PHE:HB2	2.51	0.46
1:A:1284:MET:HA	1:A:1306:LEU:HD23	1.98	0.46
1:A:1121:GLU:HB3	1:A:1124:HIS:CD2	2.51	0.46
2:B:282:ILE:HG21	2:B:382:ILE:HD13	1.97	0.46
2:B:1183:LYS:HE3	2:B:1183:LYS:O	2.15	0.46
1:A:518:LYS:HB2	1:A:519:PRO:HD2	1.97	0.46
2:B:258:LEU:O	2:B:258:LEU:CG	2.62	0.46
2:B:429:PHE:HA	2:B:432:MET:HE2	1.98	0.46
2:B:90:ILE:HD12	2:B:432:MET:SD	2.56	0.46
4:D:40:HIS:NE2	7:G:73:LYS:HG2	2.30	0.46
9:U:82:GLU:OE2	9:U:104:LEU:HB2	2.16	0.46
3:C:252:GLN:HE21	11:K:95:ILE:CG2	2.28	0.46
2:B:431:TYR:CG	2:B:447:ALA:HB2	2.50	0.46
1:M:1336:MET:CE	1:M:1381:LEU:HG	2.45	0.46
2:B:1156:ASP:O	2:B:1157:ALA:HB3	2.15	0.46
2:B:305:VAL:HG12	2:B:305:VAL:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:U:54:GLU:OE1	9:U:118:ARG:NH2	2.49	0.46
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.45	0.46
2:B:105:SER:O	2:B:106:ASP:HB2	2.15	0.46
2:B:91:SER:OG	2:B:133:LYS:HB2	2.15	0.46
8:H:47:PHE:HB3	8:H:95:TYR:CD1	2.49	0.46
4:P:154:PHE:HZ	4:P:214:LEU:CD1	2.27	0.46
1:M:49:LYS:CD	1:M:55:ASP:HB3	2.46	0.46
2:B:599:THR:O	2:B:603:LEU:HB2	2.15	0.46
2:B:871:THR:HG22	2:B:872:GLU:N	2.30	0.46
3:O:104:PHE:HD2	3:O:105:GLY:N	2.14	0.46
1:M:504:LEU:CD1	6:R:91:ALA:HB2	2.45	0.46
2:N:758:PHE:CE1	2:N:1027:ILE:HG22	2.50	0.46
2:N:871:THR:O	2:N:917:PRO:HG3	2.15	0.46
9:U:75:CYS:SG	9:U:78:CYS:SG	3.13	0.46
2:B:773:MET:C	2:B:775:LYS:N	2.69	0.46
2:N:390:LEU:O	2:N:391:ASP:C	2.54	0.46
2:N:26:THR:O	2:N:29:ASP:HB2	2.16	0.46
2:N:35:SER:HA	2:N:811:TYR:CE2	2.42	0.46
2:N:25:ILE:HD11	2:N:653:VAL:O	2.16	0.46
2:B:35:SER:HA	2:B:811:TYR:CE2	2.49	0.46
4:D:15:LEU:O	4:D:15:LEU:HD12	2.16	0.46
1:M:1316:VAL:O	1:M:1316:VAL:HG12	2.14	0.46
1:A:806:ARG:HH12	2:B:729:ILE:HD11	1.80	0.46
3:O:65:HIS:O	3:O:69:LEU:CD1	2.63	0.46
2:N:189:LEU:O	2:N:192:LEU:HB2	2.16	0.46
1:M:43:GLU:CG	1:M:46:THR:HB	2.39	0.46
2:N:642:ASP:HB3	2:N:649:LYS:CG	2.45	0.46
10:J:2:ILE:HG12	10:J:57:ILE:HD13	1.98	0.46
2:N:622:LYS:CE	9:U:59:VAL:HG13	2.45	0.46
7:S:1:MET:SD	7:S:79:PHE:CD1	3.09	0.46
2:B:750:GLY:O	2:B:751:VAL:C	2.54	0.46
2:N:744:HIS:CD2	2:N:745:PRO:CD	2.86	0.46
2:B:129:PHE:HD2	2:B:166:PHE:HA	1.79	0.46
2:B:1095:LEU:CD1	2:B:1095:LEU:H	2.05	0.46
1:A:868:TYR:CZ	1:A:1366:ARG:HD3	2.50	0.46
5:Q:65:THR:O	5:Q:69:ILE:CD1	2.63	0.46
2:N:222:ILE:N	2:N:240:ILE:HD12	2.31	0.46
3:O:238:ILE:HD11	3:O:246:ARG:CZ	2.45	0.46
2:N:871:THR:HG22	2:N:872:GLU:N	2.30	0.46
2:N:861:ASP:OD1	2:N:862:GLN:N	2.49	0.46
2:B:390:LEU:O	2:B:391:ASP:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:208:GLU:HA	4:D:211:LEU:HD12	1.97	0.46
7:G:35:GLU:HG3	7:G:48:VAL:HG23	1.96	0.46
1:M:694:THR:O	1:M:698:GLN:HG3	2.15	0.46
5:Q:100:ILE:CG2	5:Q:105:PHE:HB2	2.44	0.46
11:K:113:THR:O	11:K:114:LEU:CB	2.64	0.46
12:L:65:VAL:HG23	12:L:67:PHE:HE1	1.80	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CD1	2.51	0.46
2:N:664:THR:CG2	2:N:678:GLU:N	2.78	0.46
2:N:497:ARG:NH2	2:N:775:LYS:NZ	2.64	0.46
2:N:773:MET:C	2:N:775:LYS:N	2.69	0.46
2:N:850:LEU:HD12	2:N:851:PHE:H	1.80	0.46
2:N:616:ILE:HD12	2:N:625:LYS:O	2.16	0.46
9:U:116:ASN:C	9:U:117:LYS:HD2	2.36	0.46
2:N:865:LYS:NZ	2:N:869:SER:HA	2.31	0.46
8:T:47:PHE:HB3	8:T:95:TYR:HD1	1.80	0.46
2:B:303:TYR:N	2:B:303:TYR:CD2	2.83	0.46
7:G:7:LEU:CD1	7:G:45:ILE:HD11	2.45	0.46
6:R:90:ARG:HD3	6:R:155:LEU:CD1	2.40	0.46
7:S:96:GLN:H	7:S:96:GLN:HG2	1.51	0.46
5:Q:29:PHE:HA	5:Q:65:THR:HG22	1.98	0.46
1:M:157:ASP:C	1:M:159:THR:H	2.19	0.46
13:4:15:DG:H2"	13:4:16:DT:H71	1.97	0.46
2:N:679:TYR:CE1	2:N:683:SER:HB2	2.51	0.46
6:F:116:ASP:C	6:F:116:ASP:OD1	2.54	0.46
2:B:39:ARG:CZ	2:B:665:GLU:HG2	2.45	0.46
3:C:46:ILE:HG13	3:C:72:LEU:HD11	1.98	0.46
4:P:7:THR:HB	7:S:42:PHE:HE2	1.79	0.46
1:A:322:VAL:O	1:A:322:VAL:CG1	2.63	0.46
11:K:22:ASP:C	11:K:31:VAL:HG13	2.36	0.46
2:N:732:SER:HB2	2:N:734:HIS:CE1	2.51	0.46
3:C:88:CYS:SG	3:C:91:HIS:HA	2.55	0.46
1:A:1100:ARG:HH21	1:A:1351:GLU:CG	2.29	0.46
1:A:2:VAL:HG22	1:A:3:GLY:H	1.81	0.46
5:Q:158:SER:O	5:Q:162:ARG:HD3	2.16	0.46
2:N:1068:GLY:O	2:N:1069:PHE:C	2.54	0.46
2:B:1208:MET:O	2:B:1211:ASN:N	2.43	0.46
1:A:1395:GLY:HA3	1:A:1419:ASP:OD2	2.16	0.46
10:V:7:CYS:CB	10:V:49:MET:HE3	2.45	0.46
1:M:338:GLY:HA2	2:N:1129:ARG:HH22	1.81	0.46
1:A:63:ARG:HA	1:A:74:MET:HE1	1.96	0.46
4:P:191:ALA:O	4:P:193:THR:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:195:ILE:HB	4:P:198:LEU:HD11	1.97	0.46
1:M:600:PRO:HA	8:T:25:ARG:NH1	2.31	0.46
4:P:16:LYS:O	4:P:18:VAL:N	2.41	0.46
1:M:1444:MET:HE1	6:R:135:ARG:HB2	1.98	0.46
1:M:690:VAL:HG21	1:M:718:VAL:HG13	1.97	0.46
1:M:670:ILE:N	1:M:670:ILE:HD13	2.31	0.46
2:N:758:PHE:CE2	2:N:1044:ALA:CA	2.93	0.46
1:A:427:GLN:HB2	1:A:430:TRP:CD2	2.50	0.46
2:N:240:ILE:O	2:N:240:ILE:HG23	2.16	0.46
2:B:497:ARG:HH21	2:B:775:LYS:HZ1	1.64	0.46
2:N:619:ILE:HD12	9:U:65:ASP:HB2	1.98	0.46
2:B:637:LEU:HD22	2:B:742:GLU:HA	1.96	0.46
2:N:1183:LYS:H	2:N:1183:LYS:CE	2.28	0.46
10:V:36:LEU:HD11	10:V:51:LEU:HB2	1.98	0.46
1:A:245:PRO:O	1:A:248:PRO:HD3	2.16	0.46
1:M:134:ARG:CD	1:M:221:SER:O	2.62	0.46
1:A:915:SER:O	1:A:919:ILE:HB	2.16	0.46
7:G:21:ARG:HD2	7:G:24:GLN:HB3	1.96	0.46
1:A:962:ARG:C	1:A:964:ILE:N	2.69	0.46
12:X:60:ARG:HG2	12:X:61:THR:N	2.31	0.46
4:P:156:ASP:CB	4:P:159:THR:HG23	2.36	0.46
4:P:189:ASP:OD2	7:S:167:TYR:CE1	2.69	0.46
4:P:185:CYS:SG	4:P:191:ALA:CA	3.04	0.46
2:N:521:LEU:HD22	2:N:633:VAL:CG1	2.26	0.46
8:T:40:LEU:HD13	8:T:123:MET:CE	2.46	0.46
3:C:239:PRO:O	3:C:242:GLN:N	2.45	0.46
1:M:825:ILE:O	1:M:829:VAL:HG23	2.16	0.46
2:B:246:LYS:HA	2:B:249:ARG:CZ	2.46	0.46
6:F:93:ILE:CD1	6:F:134:ILE:HD11	2.37	0.46
1:A:1394:THR:CG2	1:A:1398:MET:SD	3.04	0.46
1:M:401:GLY:C	1:M:435:HIS:CD2	2.89	0.46
3:O:73:GLN:HE21	3:O:75:MET:HB2	1.78	0.46
5:E:147:HIS:CD2	5:E:149:LEU:H	2.27	0.46
1:A:1236:LEU:C	1:A:1237:ILE:HD12	2.36	0.46
3:O:3:GLU:OE1	3:O:4:GLU:HB2	2.16	0.46
3:O:16:ASP:OD1	3:O:16:ASP:N	2.49	0.46
6:R:100:GLN:HE22	7:S:61:ILE:HD13	1.81	0.46
1:A:230:ARG:HG3	1:A:233:TRP:CE3	2.51	0.46
5:E:100:ILE:HG23	5:E:105:PHE:CD1	2.51	0.46
1:M:697:ALA:CB	1:M:702:LEU:HD11	2.45	0.46
2:B:90:ILE:HD11	2:B:432:MET:SD	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:50:LEU:HD11	11:K:75:ILE:HD11	1.97	0.46
9:I:15:TYR:HD1	9:I:15:TYR:N	2.13	0.46
1:M:946:VAL:CG2	5:Q:201:LYS:HD2	2.45	0.46
1:A:365:GLY:HA3	1:A:463:ILE:HD13	1.97	0.46
1:A:447:GLN:HA	1:A:448:PRO:C	2.36	0.46
1:M:807:GLY:HA2	2:N:760:ASP:O	2.15	0.46
1:A:35:ILE:HA	1:A:52:GLY:O	2.16	0.46
2:B:1115:THR:HG21	2:B:1117:GLN:HB2	1.98	0.46
4:P:134:THR:CG2	4:P:135:GLY:N	2.79	0.46
4:P:194:LEU:CB	7:S:86:VAL:HG21	2.46	0.46
2:B:558:LEU:CD2	2:B:596:LEU:HD11	2.46	0.46
1:M:53:LEU:O	1:M:54:ASN:C	2.53	0.46
1:M:75:ASN:O	1:M:76:GLU:CB	2.62	0.46
3:O:177:GLU:HG3	3:O:231:ASN:HD22	1.81	0.46
1:A:255:SER:OG	2:B:918:ILE:HD13	2.15	0.46
1:M:549:MET:HE1	1:M:656:TRP:CD1	2.51	0.46
1:M:834:THR:CG2	1:M:835:GLY:N	2.79	0.46
2:B:331:LEU:O	2:B:334:ILE:HB	2.16	0.46
2:B:331:LEU:HD21	2:B:353:LYS:HG2	1.97	0.46
2:B:857:ARG:HH21	2:B:942:ARG:NH2	2.14	0.46
2:N:277:LYS:HG2	2:N:336:ARG:CB	2.46	0.46
1:A:929:LEU:HD21	1:A:983:ILE:HG21	1.98	0.46
4:P:67:ARG:HB2	4:P:133:THR:CG2	2.45	0.46
2:B:620:ARG:CZ	9:I:68:LEU:HD21	2.45	0.46
2:N:298:LEU:N	2:N:298:LEU:CD2	2.79	0.46
4:D:35:LEU:N	4:D:35:LEU:HD12	2.28	0.46
1:A:1098:VAL:N	1:A:1099:PRO:HD2	2.30	0.46
4:P:35:LEU:H	4:P:35:LEU:CD1	2.28	0.46
4:D:51:ASN:C	4:D:52:LEU:O	2.51	0.46
2:B:20:ASP:C	2:B:22:SER:H	2.14	0.46
3:C:44:LEU:CD2	3:C:159:ALA:HB1	2.46	0.46
5:E:164:LEU:HD21	5:E:211:TYR:CG	2.50	0.46
2:N:51:PHE:O	2:N:54:PHE:HB3	2.16	0.46
1:M:367:PRO:HB3	1:M:465:TYR:O	2.16	0.46
8:H:77:ARG:HG2	8:H:78:SER:H	1.81	0.46
1:A:1345:ARG:HG2	1:A:1372:VAL:CG1	2.46	0.46
1:M:208:LEU:HA	1:M:235:ILE:HD12	1.97	0.46
1:A:181:LEU:HA	1:A:181:LEU:HD23	1.80	0.46
1:A:878:ILE:HG21	1:A:955:PRO:HB2	1.98	0.46
2:N:1169:MET:CE	2:N:1204:PHE:HB2	2.46	0.46
8:H:40:LEU:HD12	8:H:123:MET:CG	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:56:THR:HB	8:H:145:ARG:HG2	1.97	0.45
4:P:153:ARG:HB3	4:P:154:PHE:CE2	2.51	0.45
4:P:212:LYS:O	4:P:215:SER:OG	2.33	0.45
1:A:829:VAL:HG11	2:B:508:LEU:HD22	1.98	0.45
1:M:53:LEU:CD2	1:M:54:ASN:N	2.51	0.45
1:M:61:ILE:O	1:M:63:ARG:N	2.49	0.45
12:X:36:SER:O	12:X:37:LYS:C	2.54	0.45
2:B:613:VAL:HG22	2:B:628:THR:HA	1.98	0.45
2:B:1008:PRO:HB3	2:B:1087:PHE:HE2	1.82	0.45
2:N:427:ASP:HA	2:N:430:ARG:HG3	1.97	0.45
1:M:795:GLU:H	1:M:795:GLU:CD	2.19	0.45
1:A:1036:ARG:NH1	1:A:1036:ARG:CG	2.74	0.45
2:B:860:MET:HB2	2:B:965:LYS:HG2	1.98	0.45
11:W:47:ARG:O	11:W:47:ARG:HD2	2.16	0.45
4:D:220:LEU:CG	4:D:221:TYR:H	2.29	0.45
1:A:960:ILE:HA	1:A:963:ILE:CG2	2.46	0.45
3:O:166:GLU:HG3	11:W:10:PHE:CZ	2.43	0.45
5:E:157:SER:C	5:E:159:ASP:N	2.70	0.45
12:L:43:THR:O	12:L:43:THR:HG22	2.16	0.45
2:B:121:ASN:HA	2:B:207:GLY:CA	2.46	0.45
4:D:6:SER:HB3	7:G:8:SER:OG	2.16	0.45
3:O:80:LEU:HD11	3:O:95:CYS:CA	2.46	0.45
2:B:233:PRO:HG2	2:B:234:ILE:HD13	1.97	0.45
1:A:596:THR:C	1:A:597:LEU:HD12	2.36	0.45
2:B:806:THR:HG22	2:B:808:ALA:CB	2.46	0.45
2:N:167:ILE:HG21	2:N:424:LEU:HD21	1.99	0.45
5:Q:134:THR:O	5:Q:135:PHE:CD1	2.69	0.45
3:O:43:THR:HG22	3:O:44:LEU:N	2.31	0.45
2:B:619:ILE:HG22	2:B:620:ARG:N	2.30	0.45
1:M:899:VAL:CB	1:M:929:LEU:HD12	2.43	0.45
1:A:1048:ASN:HD22	1:A:1048:ASN:N	2.14	0.45
1:A:185:TRP:CH2	1:A:200:ARG:HG2	2.51	0.45
1:M:218:ASP:O	1:M:219:PHE:C	2.55	0.45
1:M:321:PRO:O	1:M:322:VAL:CG1	2.60	0.45
1:M:1148:ILE:HG12	1:M:1198:ASP:HB2	1.98	0.45
4:D:162:ALA:HA	4:D:165:GLN:HE21	1.80	0.45
1:M:315:LEU:N	1:M:315:LEU:HD23	2.31	0.45
11:K:12:LEU:HD12	11:K:37:LYS:HG3	1.98	0.45
1:M:1445:ILE:HD12	1:M:1445:ILE:N	2.30	0.45
1:M:1280:GLU:O	1:M:1281:ARG:C	2.54	0.45
9:U:73:ARG:NH1	9:U:112:SER:HB3	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:27:GLU:HA	8:H:38:LEU:O	2.17	0.45
8:H:87:ARG:O	8:H:89:LEU:HD23	2.16	0.45
8:H:95:TYR:CE2	8:H:97:MET:CG	2.99	0.45
3:O:67:LEU:HD11	3:O:155:LEU:CD1	2.46	0.45
4:P:193:THR:CG2	4:P:194:LEU:HD23	2.46	0.45
1:A:167:CYS:HB2	1:A:169:ASN:ND2	2.32	0.45
2:B:582:VAL:CG2	2:B:626:ILE:HB	2.43	0.45
2:N:69:LEU:HD13	2:N:429:PHE:HD1	1.82	0.45
2:B:167:ILE:HA	2:B:450:ALA:HB1	1.95	0.45
2:B:448:ILE:O	2:B:450:ALA:N	2.49	0.45
13:1:15:DG:H2''	13:1:16:DT:H71	1.98	0.45
2:N:470:LYS:O	2:N:472:ALA:N	2.49	0.45
6:F:109:VAL:CG1	6:F:110:ASP:N	2.73	0.45
3:C:183:TRP:O	3:C:185:LYS:HG3	2.16	0.45
15:6:5:C:O2'	15:6:6:A:H5'	2.16	0.45
2:B:387:LEU:HD12	2:B:387:LEU:N	2.31	0.45
1:A:133:LYS:O	1:A:136:ALA:HB3	2.16	0.45
1:M:409:SER:O	1:M:410:GLY:C	2.55	0.45
1:M:1400:CYS:O	1:M:1405:THR:HG23	2.16	0.45
5:E:161:LYS:HD2	5:E:195:VAL:HG23	1.98	0.45
1:A:566:ILE:O	1:A:567:LYS:O	2.34	0.45
1:M:857:ARG:NH2	6:R:139:PRO:HG3	2.30	0.45
3:O:144:ILE:HG22	3:O:145:CYS:HB3	1.98	0.45
4:P:138:ASN:C	4:P:140:ASP:N	2.69	0.45
2:N:557:PHE:CE1	2:N:603:LEU:HD11	2.51	0.45
1:M:590:ARG:O	1:M:591:PHE:CB	2.59	0.45
12:L:36:SER:O	12:L:37:LYS:C	2.54	0.45
7:S:142:ARG:CB	7:S:171:ILE:HD11	2.47	0.45
2:B:222:ILE:N	2:B:240:ILE:CD1	2.79	0.45
2:B:100:PRO:HA	2:B:125:SER:O	2.16	0.45
1:A:898:ARG:HD3	1:A:933:TYR:CD1	2.51	0.45
1:M:381:THR:HG21	1:M:383:TYR:CD1	2.52	0.45
3:O:239:PRO:O	3:O:242:GLN:N	2.47	0.45
3:O:243:VAL:O	3:O:243:VAL:CG1	2.64	0.45
2:B:831:SER:HG	2:B:994:TYR:HE1	1.62	0.45
2:B:227:LYS:HG3	2:B:395:GLN:OE1	2.17	0.45
1:M:1095:THR:CG2	1:M:1112:LYS:HD2	2.46	0.45
4:D:216:ASN:O	4:D:218:GLU:N	2.50	0.45
9:U:100:PHE:CD1	9:U:100:PHE:N	2.84	0.45
2:B:347:LYS:HG3	2:B:348:ARG:H	1.80	0.45
8:H:133:ASN:O	8:H:135:LEU:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:186:LEU:O	3:C:187:LYS:HB2	2.17	0.45
2:B:995:ARG:HB3	2:B:997:GLU:OE2	2.16	0.45
1:A:335:ARG:HA	1:A:339:ASN:HD22	1.82	0.45
4:D:134:THR:CG2	4:D:135:GLY:H	2.28	0.45
1:A:1029:ARG:CG	1:A:1029:ARG:NH1	2.79	0.45
1:M:251:SER:HA	1:M:257:ARG:O	2.17	0.45
1:M:50:ILE:C	1:M:52:GLY:N	2.68	0.45
2:B:1220:ARG:HH11	2:B:1220:ARG:HB3	1.82	0.45
1:M:1198:ASP:O	1:M:1202:MET:HG2	2.16	0.45
5:E:106:GLN:HE22	5:E:129:PRO:HB2	1.82	0.45
1:M:1227:ILE:HG22	1:M:1228:TRP:N	2.30	0.45
5:Q:128:PRO:HA	5:Q:129:PRO:O	2.17	0.45
1:M:1313:LEU:HD23	1:M:1338:VAL:CG2	2.47	0.45
2:B:95:ILE:CB	2:B:130:VAL:HG22	2.47	0.45
1:M:1410:PHE:HA	2:N:1212:ILE:HD11	1.97	0.45
1:M:1396:ALA:HA	1:M:1399:ARG:NH2	2.31	0.45
1:A:1280:GLU:O	1:A:1281:ARG:C	2.54	0.45
1:A:809:THR:OG1	1:A:812:GLU:HG3	2.17	0.45
2:B:1204:PHE:O	2:B:1208:MET:HG3	2.15	0.45
2:N:970:THR:HG22	2:N:971:THR:N	2.31	0.45
2:B:990:ILE:HG22	2:B:991:GLY:N	2.30	0.45
2:B:803:LEU:HD13	2:B:1032:SER:HB3	1.97	0.45
3:C:258:ILE:HG23	11:K:19:LEU:HD11	1.99	0.45
2:N:376:PHE:CZ	2:N:569:TYR:HB3	2.52	0.45
4:P:195:ILE:N	4:P:196:PRO:CD	2.79	0.45
4:P:202:ILE:HD11	4:P:207:LEU:HA	1.98	0.45
2:B:401:PHE:HD2	2:B:521:LEU:HD12	1.82	0.45
1:M:61:ILE:CG2	1:M:62:ASP:H	2.28	0.45
2:B:185:THR:O	2:B:188:ASP:N	2.50	0.45
2:B:871:THR:O	2:B:917:PRO:HG3	2.15	0.45
12:X:40:LEU:HD13	12:X:44:ASP:CB	2.32	0.45
6:R:103:MET:HE2	7:S:66:GLY:N	2.21	0.45
2:B:245:GLU:C	2:B:246:LYS:HG3	2.37	0.45
1:M:1217:LYS:O	1:M:1221:LYS:HA	2.15	0.45
2:N:1096:ARG:HH11	2:N:1096:ARG:HB2	1.81	0.45
9:U:74:GLU:HA	9:U:80:SER:O	2.17	0.45
2:B:637:LEU:HD22	2:B:741:CYS:O	2.17	0.45
2:B:766:ARG:HD3	2:B:766:ARG:HA	1.58	0.45
2:B:1084:GLN:H	2:B:1084:GLN:HE21	1.64	0.45
15:6:3:A:H2'	15:6:4:C:C6	2.51	0.45
1:M:962:ARG:C	1:M:964:ILE:H	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:55:ASP:HB3	7:G:73:LYS:HB2	1.98	0.45
1:A:1291:VAL:CG2	1:A:1292:PRO:HD2	2.47	0.45
2:B:1106:ARG:HH12	2:B:1110:PRO:HG2	1.81	0.45
5:Q:179:GLN:HB2	5:Q:182:ASP:HB2	1.99	0.45
4:P:23:ASN:HA	4:P:28:GLN:O	2.15	0.45
2:N:1006:ILE:H	2:N:1006:ILE:HG13	1.33	0.45
4:D:190:GLU:O	4:D:194:LEU:HG	2.16	0.45
1:A:262:LEU:HD12	1:A:328:ARG:NH2	2.31	0.45
3:C:208:GLU:O	3:C:210:GLU:N	2.49	0.45
2:B:230:ALA:HB3	2:B:231:PRO:HD3	1.97	0.45
8:H:57:VAL:HG12	8:H:58:THR:N	2.32	0.45
2:N:112:LEU:HD12	2:N:113:TYR:H	1.81	0.45
1:A:44:THR:O	1:A:45:GLN:CB	2.64	0.45
1:A:56:PRO:O	1:A:57:ARG:CZ	2.65	0.45
1:A:66:LYS:O	1:A:67:CYS:CB	2.64	0.45
4:P:134:THR:HG22	4:P:135:GLY:H	1.79	0.45
1:M:64:ASN:O	1:M:65:LEU:C	2.55	0.45
1:M:107:CYS:SG	1:M:108:MET:O	2.75	0.45
2:B:807:ARG:HH11	2:B:807:ARG:HB3	1.82	0.45
12:L:34:CYS:O	12:L:35:SER:C	2.55	0.45
1:A:1116:LEU:HB3	1:A:1308:THR:CG2	2.46	0.45
2:N:744:HIS:HD2	2:N:745:PRO:CG	2.30	0.45
1:M:1438:THR:CG2	6:R:92:ARG:HD2	2.47	0.45
10:J:14:VAL:CG1	10:J:14:VAL:O	2.63	0.45
5:E:177:ARG:C	5:E:212:ARG:HD3	2.37	0.45
2:N:223:VAL:HG21	2:N:380:TYR:HE2	1.82	0.45
2:B:641:GLU:C	2:B:643:ASP:H	2.19	0.45
1:A:697:ALA:HA	1:A:702:LEU:HG	1.97	0.45
6:F:69:LEU:C	6:F:71:GLU:HG3	2.37	0.45
4:P:35:LEU:HD11	4:P:173:HIS:NE2	2.32	0.45
1:A:977:LYS:HB3	1:A:978:PRO:CD	2.44	0.45
1:A:1152:ILE:HG23	1:A:1260:LEU:HD23	1.98	0.45
1:A:150:THR:O	1:A:150:THR:HG22	2.16	0.45
6:R:119:ARG:NH1	6:R:119:ARG:CG	2.80	0.45
1:M:1313:LEU:HB3	1:M:1338:VAL:HG21	1.98	0.45
10:V:42:LYS:HG2	10:V:43:ARG:N	2.32	0.45
2:B:95:ILE:CG1	2:B:130:VAL:HG22	2.47	0.45
1:M:878:ILE:HG21	1:M:955:PRO:HB2	1.98	0.45
10:V:7:CYS:HB2	10:V:49:MET:HE3	1.99	0.45
2:N:1031:LEU:O	2:N:1031:LEU:HD12	2.16	0.45
1:M:683:ILE:HD13	1:M:801:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:855:THR:HG23	1:A:857:ARG:CG	2.39	0.45
3:O:233:GLU:OE1	10:V:12:LYS:HE2	2.16	0.45
1:A:66:LYS:NZ	1:A:68:GLN:H	2.14	0.45
1:A:72:GLU:HB3	1:A:76:GLU:CG	2.47	0.45
1:M:106:VAL:CG1	1:M:111:GLY:HA2	2.47	0.45
8:T:133:ASN:O	8:T:135:LEU:N	2.49	0.45
8:T:81:PRO:HB2	8:T:82:PRO:HD2	1.97	0.45
1:A:472:LEU:HD11	2:B:835:GLN:NE2	2.32	0.45
7:G:139:ILE:HD13	7:G:140:LYS:HE3	1.98	0.45
1:M:1438:THR:HG23	6:R:92:ARG:HD2	1.98	0.45
2:N:777:ALA:HA	2:N:1095:LEU:HA	1.98	0.45
6:F:101:ILE:HD11	6:F:124:GLU:OE1	2.17	0.45
5:E:21:GLU:O	5:E:24:LYS:HG2	2.17	0.45
7:G:1:MET:O	7:G:1:MET:HE2	2.17	0.45
5:E:78:LEU:HD23	5:E:78:LEU:C	2.37	0.45
1:M:256:GLN:O	1:M:257:ARG:HB2	2.16	0.45
3:C:114:TYR:HB2	3:C:116:LYS:HG2	1.99	0.45
3:C:114:TYR:CD2	3:C:140:ASN:CB	2.99	0.45
1:A:196:GLU:CG	1:A:197:PRO:HD2	2.46	0.45
2:N:796:LEU:HD12	2:N:852:ARG:O	2.17	0.45
8:H:30:SER:HB3	8:H:36:CYS:HB3	1.99	0.45
1:A:879:GLU:O	1:A:955:PRO:HA	2.17	0.45
2:B:975:GLN:HG2	2:B:976:ILE:H	1.82	0.45
2:B:1060:ARG:HA	2:B:1060:ARG:HD2	1.53	0.45
1:A:1447:GLU:OE2	7:G:23:LYS:HB2	2.17	0.45
2:B:174:LEU:HD22	2:B:202:TYR:CE1	2.52	0.45
3:O:253:LYS:O	3:O:256:ALA:HB3	2.17	0.45
5:E:89:GLY:C	5:E:91:LYS:H	2.20	0.45
1:A:837:ILE:HG12	1:A:840:ARG:NH1	2.31	0.45
2:N:555:ILE:HG22	2:N:556:THR:N	2.32	0.45
1:A:568:PRO:HB3	3:C:221:TYR:OH	2.17	0.45
1:A:42:ASP:HB3	1:A:45:GLN:CA	2.47	0.45
10:J:53:HIS:HD2	10:J:54:VAL:H	1.63	0.45
2:B:515:HIS:CD2	2:B:517:THR:OG1	2.65	0.45
1:A:524:VAL:CG1	1:A:525:GLN:H	2.11	0.45
2:B:189:LEU:O	2:B:192:LEU:HB2	2.17	0.45
4:P:12:ARG:HH12	4:P:14:ARG:HA	1.82	0.45
1:M:1115:SER:OG	1:M:1116:LEU:N	2.50	0.45
2:N:169:ARG:HB2	2:N:454:THR:HG23	1.99	0.45
2:B:778:MET:HE1	2:B:1094:ARG:CD	2.42	0.45
1:M:670:ILE:HD13	1:M:670:ILE:H	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:840:ILE:HB	2:B:1011:ILE:HB	1.98	0.45
4:D:146:GLN:HA	4:D:149:THR:CG2	2.44	0.45
14:5:3:DT:C2	14:5:4:DA:N7	2.85	0.45
1:A:1297:GLU:OE1	1:A:1297:GLU:N	2.50	0.45
1:A:1222:ASN:O	1:A:1223:ASP:HB3	2.16	0.45
8:H:63:LEU:HD23	8:H:90:ALA:HB3	1.99	0.45
1:A:1268:LEU:HD13	9:I:48:LEU:HD11	1.98	0.45
2:B:842:ASN:HD21	2:B:844:SER:HB2	1.82	0.45
6:R:69:LEU:HB3	6:R:71:GLU:CG	2.47	0.45
5:E:96:PHE:O	5:E:99:HIS:HB3	2.16	0.45
1:M:84:ILE:HG22	1:M:86:LEU:HD23	1.99	0.45
1:M:1453:TYR:O	1:M:1454:MET:HB3	2.17	0.45
2:B:48:LEU:HD23	2:B:173:MET:SD	2.57	0.45
3:O:46:ILE:HG13	3:O:72:LEU:HD11	1.98	0.45
2:B:93:GLY:O	2:B:130:VAL:HG13	2.16	0.45
1:A:182:VAL:HG23	1:A:201:VAL:HA	1.98	0.45
1:M:878:ILE:CG2	1:M:955:PRO:HB2	2.47	0.45
2:B:44:VAL:O	2:B:45:SER:C	2.54	0.45
1:M:536:LEU:HG	1:M:536:LEU:H	1.54	0.45
9:I:98:VAL:CG1	9:I:111:THR:HG23	2.46	0.45
1:A:61:ILE:O	1:A:63:ARG:N	2.50	0.45
1:A:64:ASN:O	1:A:65:LEU:C	2.55	0.45
4:P:215:SER:HA	4:P:218:GLU:OE2	2.16	0.45
1:M:1169:ILE:H	1:M:1169:ILE:HG13	1.55	0.45
1:M:55:ASP:C	1:M:57:ARG:N	2.64	0.45
1:M:489:LEU:C	1:M:489:LEU:HD12	2.36	0.45
2:B:582:VAL:O	2:B:582:VAL:HG12	2.16	0.45
12:L:53:HIS:C	12:L:55:ILE:HD13	2.38	0.45
1:A:1111:MET:HG3	1:A:1114:PRO:HB3	1.97	0.45
1:M:767:GLN:HA	1:M:799:PHE:HA	1.99	0.45
2:B:205:ILE:HG12	2:B:461:LEU:HB3	1.99	0.45
4:P:40:HIS:CE1	7:S:74:TYR:O	2.70	0.45
1:A:560:ILE:HD11	11:K:58:PHE:HD1	1.82	0.45
1:M:1081:LEU:HD11	1:M:1098:VAL:H	1.82	0.45
1:A:225:ASN:ND2	1:A:227:VAL:N	2.63	0.45
2:N:651:LEU:HD21	2:N:741:CYS:HB3	1.98	0.45
2:N:345:LYS:HA	2:N:348:ARG:HG2	1.99	0.45
1:A:1107:VAL:CG1	1:A:1107:VAL:O	2.59	0.45
1:A:316:GLN:HG2	1:A:317:LYS:H	1.81	0.45
2:B:24:PRO:O	2:B:25:ILE:HG23	2.17	0.45
9:I:17:ARG:HG3	9:I:28:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:866:TYR:HB2	2:B:870:ILE:HB	1.99	0.45
2:B:899:ILE:HG22	2:B:900:ALA:O	2.16	0.45
2:N:770:GLN:HG2	2:N:983:ARG:C	2.37	0.45
6:R:69:LEU:HD22	6:R:71:GLU:OE1	2.16	0.45
2:B:69:LEU:HD13	2:B:429:PHE:HD1	1.81	0.45
9:I:100:PHE:CD1	9:I:100:PHE:N	2.85	0.45
1:M:295:LEU:O	1:M:298:PHE:HB3	2.17	0.45
1:A:164:ARG:HG3	1:A:165:GLY:H	1.82	0.45
1:A:259:GLU:OE1	1:A:259:GLU:HA	2.17	0.45
2:N:787:VAL:O	2:N:787:VAL:HG12	2.17	0.45
2:N:710:LEU:HA	2:N:733:HIS:CB	2.24	0.45
1:M:62:ASP:OD1	1:M:62:ASP:O	2.34	0.45
2:B:604:ARG:CB	2:B:609:ILE:HG13	2.46	0.45
2:B:281:PRO:HG2	2:B:284:ILE:HD12	1.99	0.45
2:N:941:LEU:HD11	2:N:968:VAL:HG21	1.98	0.45
2:B:203:PHE:HB3	2:B:205:ILE:CD1	2.47	0.45
1:A:868:TYR:CE1	1:A:1064:VAL:HG13	2.51	0.45
2:B:789:MET:HE1	2:B:953:LEU:HD22	1.99	0.45
1:M:1011:GLN:NE2	1:M:1015:VAL:HG23	2.31	0.45
2:B:314:LEU:O	2:B:318:VAL:HG23	2.17	0.45
3:O:189:THR:CG2	3:O:190:ASP:N	2.80	0.45
1:A:744:LYS:HG2	1:A:748:MET:HE1	1.97	0.45
5:E:61:GLN:HB2	5:E:79:TRP:HE3	1.82	0.45
8:T:56:THR:O	8:T:144:ILE:HA	2.17	0.45
2:B:26:THR:O	2:B:29:ASP:HB2	2.17	0.45
9:I:82:GLU:CB	9:I:104:LEU:HD12	2.47	0.45
1:M:1202:MET:HE1	1:M:1212:VAL:HG21	1.97	0.45
2:N:497:ARG:NH2	2:N:775:LYS:HZ3	2.15	0.45
1:M:1329:THR:HG23	1:M:1331:SER:N	2.31	0.45
1:M:720:ARG:O	1:M:724:GLU:CB	2.65	0.45
1:M:117:GLU:H	1:M:117:GLU:CD	2.19	0.45
2:B:984:HIS:CD2	2:B:1025:HIS:HA	2.52	0.45
1:A:153:PRO:HB3	1:A:161:LEU:CD2	2.46	0.45
1:M:392:VAL:HG13	1:M:415:LEU:CD1	2.47	0.45
1:A:688:LYS:HA	1:A:691:LEU:HB3	1.99	0.45
2:B:976:ILE:HD13	2:B:992:ILE:HA	1.99	0.45
2:B:467:GLY:CA	2:B:475:SER:HB3	2.47	0.45
2:B:473:MET:CE	2:B:474:SER:HA	2.46	0.45
4:D:67:ARG:HG2	4:D:67:ARG:O	2.17	0.45
1:A:173:THR:O	1:A:173:THR:CG2	2.65	0.45
1:A:1066:VAL:O	1:A:1070:GLN:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:659:HIS:ND1	2:B:1074:ASN:ND2	2.65	0.45
1:A:567:LYS:CG	1:A:568:PRO:CD	2.93	0.44
1:M:72:GLU:HB3	1:M:76:GLU:CG	2.47	0.44
8:T:27:GLU:HA	8:T:38:LEU:O	2.18	0.44
2:N:508:LEU:N	2:N:512:ARG:HE	2.15	0.44
7:S:98:GLY:HA3	7:S:110:VAL:O	2.16	0.44
2:B:941:LEU:CD1	2:B:968:VAL:HG21	2.46	0.44
4:P:188:ALA:CB	4:P:204:ASP:OD1	2.57	0.44
2:N:361:LEU:HD11	2:N:381:MET:HE1	1.98	0.44
1:M:547:LEU:HD21	1:M:560:ILE:HD13	1.98	0.44
4:D:146:GLN:C	4:D:149:THR:HG22	2.38	0.44
9:U:34:TYR:O	9:U:35:VAL:HG23	2.17	0.44
8:H:62:SER:OG	8:H:63:LEU:N	2.50	0.44
2:B:997:GLU:HG2	3:C:39:ALA:HB2	2.00	0.44
7:G:1:MET:SD	7:G:79:PHE:CE1	3.09	0.44
5:Q:4:GLU:HB3	5:Q:7:ARG:NE	2.31	0.44
2:N:983:ARG:HD2	2:N:1091:TYR:HD2	1.81	0.44
5:Q:42:PHE:HE1	5:Q:58:MET:HE3	1.82	0.44
2:B:29:ASP:OD1	2:B:658:ILE:HG21	2.17	0.44
4:D:13:ARG:C	4:D:15:LEU:N	2.69	0.44
10:V:13:VAL:O	10:V:14:VAL:HG23	2.17	0.44
1:A:162:VAL:HG12	1:A:163:SER:N	2.32	0.44
2:N:552:MET:CE	2:N:552:MET:HA	2.45	0.44
6:F:140:ASP:CG	6:F:142:SER:HG	2.20	0.44
1:A:1100:ARG:O	1:A:1103:GLU:HB3	2.18	0.44
1:A:1454:MET:HG3	1:A:1454:MET:O	2.17	0.44
8:T:37:LYS:HD2	8:T:126:GLU:OE2	2.17	0.44
3:C:138:GLU:OE1	3:C:138:GLU:N	2.50	0.44
9:U:56:ALA:O	9:U:57:GLY:O	2.35	0.44
2:N:399:ASP:OD2	2:N:510:LYS:HB2	2.16	0.44
1:A:853:ASP:O	1:A:854:ASN:HB2	2.17	0.44
1:A:50:ILE:C	1:A:52:GLY:N	2.69	0.44
4:P:123:LEU:CD1	4:P:149:THR:HG21	2.47	0.44
4:P:155:ARG:HE	4:P:221:TYR:HE1	1.55	0.44
4:P:220:LEU:CG	4:P:221:TYR:H	2.30	0.44
4:P:56:ARG:NH1	4:P:56:ARG:HG2	2.32	0.44
10:J:1:MET:O	10:J:1:MET:HG3	2.17	0.44
12:L:61:THR:HG22	12:L:62:LYS:N	2.33	0.44
2:B:578:THR:C	2:B:589:VAL:HG13	2.38	0.44
8:T:91:ASP:O	8:T:93:TYR:N	2.46	0.44
2:B:916:THR:HB	2:B:935:ARG:CD	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:904:THR:CG2	1:M:904:THR:O	2.66	0.44
10:V:48:ARG:NH1	10:V:48:ARG:CG	2.75	0.44
1:M:902:LEU:HD21	1:M:923:LEU:HD23	1.99	0.44
5:E:171:LYS:HG2	5:E:174:GLN:CD	2.38	0.44
1:M:1325:THR:CG2	1:M:1326:ARG:HG3	2.47	0.44
5:Q:157:SER:N	5:Q:160:GLU:OE1	2.47	0.44
1:M:688:LYS:HA	1:M:691:LEU:HB3	1.99	0.44
1:A:1255:GLU:CG	1:A:1258:HIS:CD2	3.00	0.44
2:B:432:MET:C	2:B:434:ARG:H	2.20	0.44
5:E:129:PRO:O	5:E:130:ALA:O	2.35	0.44
1:M:153:PRO:HB3	1:M:161:LEU:CD2	2.47	0.44
2:N:1004:GLU:HG3	10:V:42:LYS:HZ1	1.79	0.44
1:M:1370:LEU:O	1:M:1374:VAL:HG23	2.17	0.44
2:N:299:GLU:OE2	2:N:571:PRO:HG2	2.17	0.44
1:M:635:ARG:HH11	1:M:635:ARG:HA	1.82	0.44
1:M:1030:ARG:HG2	1:M:1034:GLU:OE2	2.17	0.44
3:O:109:SER:O	3:O:110:THR:C	2.55	0.44
3:C:180:TYR:HB3	3:C:228:PHE:HD2	1.82	0.44
12:X:30:ILE:CD1	12:X:59:ALA:HB2	2.44	0.44
2:B:597:MET:HA	2:B:597:MET:HE3	1.98	0.44
10:J:1:MET:H2	10:J:57:ILE:H	1.59	0.44
1:A:107:CYS:HB2	1:A:114:LEU:CD2	2.47	0.44
7:S:1:MET:HE2	7:S:2:PHE:HA	1.99	0.44
1:A:1095:THR:CG2	1:A:1112:LYS:HD2	2.44	0.44
5:Q:155:ARG:NH1	5:Q:194:GLU:OE2	2.47	0.44
1:M:549:MET:SD	1:M:577:ILE:HD12	2.57	0.44
1:M:562:THR:HB	8:T:98:TYR:CD2	2.52	0.44
1:M:1277:GLU:O	1:M:1279:ILE:HG12	2.18	0.44
3:O:123:ASN:HD21	3:O:125:MET:HG2	1.74	0.44
1:A:1445:ILE:HD12	7:G:59:GLY:O	2.17	0.44
2:B:128:LEU:HB2	2:B:168:GLY:O	2.17	0.44
2:N:469:GLN:HB3	2:N:470:LYS:H	1.44	0.44
5:E:48:ASP:HB3	5:E:54:GLN:CD	2.37	0.44
5:Q:17:ARG:O	5:Q:21:GLU:HG3	2.17	0.44
1:M:1102:LYS:O	1:M:1106:ASN:ND2	2.50	0.44
2:B:1113:VAL:CG2	15:3:1:C:H4'	2.48	0.44
15:3:3:A:H2'	15:3:4:C:C6	2.52	0.44
1:M:963:ILE:HD13	1:M:1049:ILE:CG1	2.48	0.44
5:Q:22:MET:CE	5:Q:26:ARG:NH2	2.81	0.44
4:D:15:LEU:O	4:D:17:LYS:HG3	2.18	0.44
2:N:46:GLN:NE2	2:N:539:LEU:HD12	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:214:ASN:O	3:C:217:ASP:OD2	2.36	0.44
1:A:115:LEU:HD12	1:A:142:CYS:HB3	1.98	0.44
10:V:9:SER:CB	10:V:45:CYS:HB2	2.47	0.44
11:K:55:LYS:CB	11:K:81:TYR:CD1	3.00	0.44
7:G:81:PRO:HG3	7:G:106:MET:SD	2.57	0.44
1:A:447:GLN:OE1	13:1:20:DG:H4'	2.17	0.44
2:B:263:GLY:O	2:B:264:SER:C	2.56	0.44
11:K:88:LYS:O	11:K:91:CYS:HB2	2.18	0.44
8:H:40:LEU:CD1	8:H:123:MET:HG3	2.47	0.44
1:A:35:ILE:HD13	1:A:241:VAL:HG11	1.99	0.44
4:P:51:ASN:C	4:P:52:LEU:O	2.53	0.44
2:N:707:PRO:HG2	2:N:708:GLU:N	2.31	0.44
2:N:558:LEU:HD21	2:N:600:LEU:HD11	1.98	0.44
1:M:1267:MET:HA	1:M:1271:ILE:HD12	2.00	0.44
12:L:47:ARG:CD	12:L:52:GLY:HA2	2.47	0.44
2:N:806:THR:HG22	2:N:808:ALA:CB	2.47	0.44
3:O:44:LEU:HD23	3:O:44:LEU:C	2.38	0.44
6:F:83:PRO:HD2	6:F:84:TYR:HD1	1.83	0.44
1:A:451:HIS:O	1:A:452:LYS:C	2.56	0.44
1:A:1325:THR:HG22	1:A:1326:ARG:HG3	1.98	0.44
2:N:617:ARG:NE	2:N:619:ILE:HG12	2.26	0.44
6:F:110:ASP:O	6:F:123:LYS:CE	2.66	0.44
1:M:321:PRO:O	1:M:322:VAL:CB	2.65	0.44
2:N:1039:GLY:HA2	10:V:51:LEU:CD2	2.48	0.44
1:M:461:LYS:O	1:M:463:ILE:HG23	2.18	0.44
6:R:74:ILE:HD12	6:R:144:GLU:HG2	1.99	0.44
1:A:982:THR:N	1:A:985:ASP:HB2	2.32	0.44
2:N:1182:CYS:SG	2:N:1182:CYS:O	2.75	0.44
11:K:18:LYS:NZ	11:K:37:LYS:O	2.50	0.44
1:M:1313:LEU:C	1:M:1315:GLU:N	2.71	0.44
1:M:1445:ILE:H	1:M:1445:ILE:CD1	2.27	0.44
2:B:51:PHE:O	2:B:54:PHE:HB3	2.17	0.44
1:M:458:HIS:CE1	1:M:507:VAL:HG21	2.52	0.44
1:A:800:VAL:HG22	1:A:812:GLU:HB3	1.98	0.44
3:C:258:ILE:N	3:C:258:ILE:HD12	2.31	0.44
1:A:481:ASP:OD1	1:A:481:ASP:N	2.51	0.44
1:A:356:ASP:C	1:A:358:ASN:H	2.21	0.44
10:V:5:VAL:C	10:V:6:ARG:HG3	2.37	0.44
1:A:69:THR:HG21	2:B:1174:LYS:NZ	2.32	0.44
4:P:60:LYS:HE2	4:P:126:ILE:HG12	1.99	0.44
1:M:1259:MET:CE	1:M:1262:LYS:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:955:THR:HG23	2:B:956:THR:H	1.83	0.44
1:A:1116:LEU:N	1:A:1308:THR:CG2	2.67	0.44
2:B:244:LEU:O	2:B:246:LYS:N	2.51	0.44
1:M:316:GLN:HG2	1:M:317:LYS:CG	2.47	0.44
1:A:381:THR:HG21	1:A:383:TYR:CD1	2.53	0.44
2:B:235:SER:C	2:B:236:HIS:CD2	2.90	0.44
2:N:203:PHE:N	2:N:203:PHE:CD1	2.86	0.44
2:N:458:LYS:O	2:N:459:TYR:C	2.56	0.44
1:M:889:SER:OG	1:M:891:ALA:HB3	2.18	0.44
1:A:993:LEU:HD23	1:A:1022:LEU:HD21	1.98	0.44
2:N:347:LYS:HG3	2:N:348:ARG:N	2.33	0.44
1:A:1148:ILE:HG12	9:I:49:ILE:HD12	1.98	0.44
7:S:41:LYS:HD3	7:S:42:PHE:CE1	2.52	0.44
2:N:185:THR:O	2:N:188:ASP:N	2.51	0.44
1:A:251:SER:HA	1:A:257:ARG:O	2.18	0.44
1:A:997:LEU:HD13	1:A:1018:PHE:CE2	2.52	0.44
2:N:461:LEU:CD1	2:N:461:LEU:H	2.31	0.44
1:A:962:ARG:C	1:A:964:ILE:H	2.21	0.44
2:N:93:GLY:O	2:N:130:VAL:HG13	2.17	0.44
1:M:946:VAL:HG12	1:M:947:PHE:CD2	2.51	0.44
5:Q:37:LEU:O	5:Q:37:LEU:HG	2.18	0.44
3:C:23:SER:O	3:C:24:ASN:HB3	2.18	0.44
6:R:118:LEU:O	6:R:122:MET:HG3	2.16	0.44
7:G:9:LEU:HD12	7:G:10:ASN:H	1.83	0.44
1:A:593:GLU:O	1:A:595:THR:N	2.45	0.44
1:A:55:ASP:C	1:A:57:ARG:N	2.65	0.44
4:P:153:ARG:NH2	4:P:184:ALA:HA	2.32	0.44
1:M:69:THR:O	1:M:71:GLN:HG2	2.18	0.44
1:M:904:THR:HG22	1:M:904:THR:O	2.17	0.44
1:M:821:ARG:O	1:M:821:ARG:HG3	2.17	0.44
3:C:167:HIS:CE1	12:L:70:ARG:HA	2.52	0.44
1:A:768:GLN:HG2	1:A:816:HIS:CA	2.35	0.44
14:5:4:DA:C4	14:5:5:DC:C5	3.06	0.44
1:A:1223:ASP:HA	1:A:1243:VAL:HG21	1.96	0.44
1:A:1121:GLU:HG3	1:A:1122:PRO:HD2	1.95	0.44
2:B:1004:GLU:HG3	10:J:42:LYS:HZ1	1.81	0.44
2:B:25:ILE:HD13	2:B:653:VAL:HG12	1.99	0.44
1:A:1081:LEU:HD11	1:A:1097:GLY:HA3	1.99	0.44
1:M:282:ASN:O	1:M:284:ALA:N	2.51	0.44
1:M:982:THR:N	1:M:985:ASP:HB2	2.33	0.44
3:C:18:VAL:HG23	3:C:240:VAL:HB	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:431:TYR:CG	2:N:447:ALA:CB	3.01	0.44
3:C:11:ARG:NH1	3:C:205:LYS:NZ	2.63	0.44
6:R:97:ARG:NH2	6:R:108:PHE:CE1	2.86	0.44
5:Q:127:ILE:HG13	5:Q:127:ILE:O	2.17	0.44
7:G:90:THR:HG22	7:G:91:VAL:N	2.32	0.44
9:I:16:PRO:HB3	9:I:27:PHE:HE2	1.82	0.44
11:W:111:LEU:HD23	11:W:111:LEU:N	2.33	0.44
3:O:80:LEU:HD12	3:O:81:GLU:H	1.82	0.44
2:B:209:GLU:CD	2:B:485:ARG:HE	2.21	0.44
3:C:134:ILE:HG21	3:C:139:GLY:HA2	1.99	0.44
8:H:143:LEU:C	8:H:144:ILE:HG13	2.37	0.44
1:M:855:THR:HG23	1:M:857:ARG:CG	2.43	0.44
4:P:208:GLU:HA	4:P:211:LEU:HD12	1.99	0.44
4:P:214:LEU:HD13	4:P:214:LEU:C	2.38	0.44
2:N:1103:ILE:HG23	2:N:1103:ILE:O	2.17	0.44
1:M:40:THR:HG22	1:M:41:MET:CG	2.46	0.44
3:C:66:ARG:NH1	10:J:2:ILE:CG2	2.78	0.44
1:A:102:VAL:CG1	1:A:211:PHE:HE1	2.31	0.44
1:A:444:PHE:CE2	1:A:487:MET:CE	3.01	0.44
2:B:552:MET:O	2:B:554:ILE:N	2.51	0.44
3:O:113:VAL:HG23	3:O:147:LEU:HD21	1.99	0.44
2:B:134:LYS:NZ	2:B:164:LYS:HE2	2.32	0.44
2:B:840:ILE:CG2	2:B:994:TYR:HD1	2.29	0.44
2:B:640:VAL:CG1	2:B:640:VAL:O	2.66	0.44
2:N:879:ARG:CZ	2:N:879:ARG:N	2.70	0.44
1:M:343:LYS:HB2	2:N:1117:GLN:OE1	2.18	0.44
1:A:270:LEU:HA	1:A:270:LEU:HD12	1.82	0.44
2:N:125:SER:O	2:N:126:SER:HB3	2.17	0.44
1:M:92:HIS:HD2	1:M:236:LEU:HD21	1.82	0.44
2:B:35:SER:O	2:B:39:ARG:HG3	2.17	0.44
6:R:109:VAL:HG11	6:R:123:LYS:HG2	1.98	0.44
5:E:167:ARG:HD3	5:E:167:ARG:HA	1.83	0.44
5:Q:43:LYS:O	5:Q:45:LYS:N	2.50	0.44
1:A:1257:ASP:HA	1:A:1260:LEU:HB3	2.00	0.44
5:E:112:TYR:OH	5:E:136:ASN:HB2	2.18	0.44
1:M:1152:ILE:HG23	1:M:1260:LEU:CD2	2.48	0.44
1:A:365:GLY:CA	1:A:463:ILE:HD13	2.48	0.44
1:A:659:HIS:O	2:B:1081:LEU:HD23	2.18	0.44
1:M:716:ASP:C	1:M:716:ASP:OD1	2.56	0.44
1:M:1101:LEU:HB2	1:M:1355:VAL:HG11	1.99	0.44
3:O:23:SER:O	3:O:24:ASN:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:70:ILE:HD11	3:O:144:ILE:HG12	2.00	0.44
1:M:599:SER:HA	1:M:600:PRO:HD2	1.80	0.44
1:M:599:SER:HB2	1:M:603:ASN:H	1.82	0.44
5:E:197:LYS:HE2	5:E:199:ILE:CD1	2.27	0.44
5:E:55:ARG:C	5:E:57:MET:N	2.71	0.44
4:P:118:THR:HB	4:P:121:LYS:CG	2.48	0.44
3:O:147:LEU:HB2	3:O:151:GLN:CB	2.41	0.44
7:G:122:ASN:HB2	7:G:131:GLN:HG3	2.00	0.44
5:Q:116:ILE:HG22	5:Q:117:THR:N	2.33	0.44
1:A:868:TYR:OH	1:A:1366:ARG:HD3	2.17	0.44
2:N:916:THR:HB	2:N:935:ARG:HD2	2.00	0.44
1:M:709:THR:CG2	1:M:710:LEU:H	2.29	0.44
13:4:16:DT:H2''	13:4:17:DT:O5'	2.18	0.44
1:M:93:VAL:HG21	1:M:301:ALA:O	2.18	0.44
4:D:156:ASP:HB2	4:D:159:THR:HG23	1.99	0.44
5:E:147:HIS:HD2	5:E:149:LEU:N	2.11	0.44
5:Q:21:GLU:O	5:Q:24:LYS:HG2	2.18	0.44
1:A:744:LYS:HG2	1:A:748:MET:HE2	2.00	0.44
5:E:63:ASN:HB3	5:E:64:PRO:HD2	1.99	0.44
5:E:164:LEU:HD11	5:E:211:TYR:CD1	2.53	0.44
4:P:13:ARG:C	4:P:15:LEU:N	2.70	0.44
1:A:893:PHE:CE1	1:A:940:ARG:HD2	2.52	0.44
2:N:118:ARG:HH11	2:N:204:ILE:CD1	2.30	0.44
1:M:942:PHE:CZ	5:Q:207:ARG:HG3	2.53	0.44
3:O:132:PRO:O	3:O:134:ILE:HG13	2.17	0.44
1:A:841:LEU:HA	1:A:841:LEU:HD23	1.84	0.44
5:E:35:VAL:C	5:E:37:LEU:H	2.20	0.44
7:S:22:MET:O	7:S:23:LYS:C	2.56	0.44
2:N:263:GLY:O	2:N:264:SER:C	2.56	0.44
2:N:816:GLU:O	2:N:817:LEU:HD23	2.18	0.44
1:A:1376:THR:O	1:A:1377:THR:C	2.55	0.44
1:A:568:PRO:HG3	8:H:46:LEU:O	2.17	0.44
3:O:235:VAL:HG21	10:V:6:ARG:NH2	2.33	0.44
12:X:47:ARG:CG	12:X:52:GLY:HA2	2.48	0.44
2:B:707:PRO:CG	2:B:708:GLU:N	2.81	0.44
1:A:444:PHE:CE2	1:A:487:MET:HE2	2.53	0.44
2:B:114:PRO:CG	2:B:181:LEU:HD11	2.33	0.44
3:O:47:ASP:CG	3:O:47:ASP:O	2.57	0.44
5:E:52:ARG:HA	5:E:53:PRO:HD2	1.85	0.44
2:B:942:ARG:HB2	2:B:945:GLU:HB2	1.99	0.44
1:M:316:GLN:O	1:M:317:LYS:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:774:ARG:H	1:A:774:ARG:HG2	1.38	0.44
2:N:281:PRO:HB3	2:N:320:ASP:OD2	2.18	0.44
3:O:133:ILE:HD11	3:O:237:SER:HA	2.00	0.44
3:O:242:GLN:C	3:O:244:VAL:N	2.71	0.44
1:A:1389:PHE:C	1:A:1391:ARG:H	2.22	0.44
1:A:1120:LEU:H	1:A:1120:LEU:HG	1.57	0.44
4:D:123:LEU:CD1	4:D:149:THR:HG21	2.48	0.44
1:A:1293:SER:HB3	1:A:1297:GLU:OE1	2.18	0.44
2:B:773:MET:O	2:B:775:LYS:N	2.50	0.44
1:A:870:GLU:HG2	5:E:208:TYR:CD2	2.52	0.44
1:M:219:PHE:HE1	1:M:230:ARG:HH21	1.64	0.44
1:A:601:LYS:HB2	1:A:603:ASN:HD21	1.79	0.44
3:O:166:GLU:CG	11:W:10:PHE:HZ	2.26	0.44
3:O:13:ALA:O	11:W:114:LEU:HD13	2.18	0.44
1:A:1148:ILE:O	1:A:1148:ILE:HG22	2.18	0.44
2:B:866:TYR:CD2	2:B:870:ILE:HB	2.52	0.44
5:Q:157:SER:C	5:Q:159:ASP:N	2.71	0.44
3:C:240:VAL:HG23	3:C:241:ASP:N	2.33	0.44
1:M:893:PHE:CE1	1:M:940:ARG:HD2	2.52	0.44
6:R:97:ARG:NH2	6:R:108:PHE:HE1	2.16	0.44
11:K:40:HIS:O	11:K:41:THR:C	2.56	0.44
1:M:1315:GLU:C	1:M:1317:MET:N	2.72	0.44
1:M:1313:LEU:C	1:M:1315:GLU:H	2.21	0.44
5:Q:201:LYS:HD3	5:Q:201:LYS:HA	1.82	0.44
1:A:463:ILE:HD12	1:A:469:ARG:HD2	1.99	0.44
4:P:186:ASP:OD1	4:P:186:ASP:N	2.51	0.44
4:D:173:HIS:ND1	4:D:174:PRO:HD2	2.33	0.44
1:A:610:GLY:O	1:A:611:GLN:NE2	2.51	0.44
2:B:970:THR:HG22	2:B:971:THR:N	2.33	0.44
2:N:193:LYS:HZ2	12:X:32:ALA:HB1	1.82	0.43
1:M:593:GLU:C	1:M:595:THR:N	2.71	0.43
12:L:27:LEU:HD13	12:L:37:LYS:CD	2.47	0.43
2:B:399:ASP:OD2	2:B:510:LYS:HB2	2.18	0.43
3:C:248:ILE:HD11	11:K:101:LEU:HD22	2.00	0.43
2:B:280:ILE:CD1	2:B:334:ILE:HG12	2.47	0.43
7:S:138:THR:CG2	7:S:139:ILE:H	2.29	0.43
2:N:429:PHE:O	2:N:433:GLN:HG3	2.18	0.43
2:N:432:MET:C	2:N:434:ARG:H	2.21	0.43
2:B:777:ALA:HA	2:B:1095:LEU:HA	1.99	0.43
5:Q:63:ASN:HB3	5:Q:64:PRO:HD2	1.99	0.43
1:M:929:LEU:HD21	1:M:983:ILE:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1209:MET:CE	1:A:1236:LEU:HB3	2.48	0.43
2:N:594:ALA:CA	2:N:617:ARG:NH1	2.81	0.43
9:U:34:TYR:CE2	9:U:36:GLU:HB3	2.53	0.43
1:A:1207:LEU:HD11	1:A:1273:LEU:HD23	1.99	0.43
4:D:52:LEU:HD12	4:D:182:SER:HB2	2.00	0.43
1:A:1259:MET:HA	1:A:1262:LYS:CD	2.47	0.43
1:A:1167:GLU:O	1:A:1170:ILE:CD1	2.66	0.43
10:J:36:LEU:HB2	10:J:47:ARG:NH1	2.33	0.43
5:Q:55:ARG:C	5:Q:57:MET:N	2.71	0.43
1:A:1215:ARG:O	1:A:1219:THR:N	2.47	0.43
1:A:528:LEU:O	1:A:531:ILE:HG22	2.18	0.43
8:H:76:THR:HG22	8:H:141:TYR:OH	2.18	0.43
1:A:971:PHE:CE2	1:A:1040:GLN:HG2	2.52	0.43
15:3:5:C:O2'	15:3:6:A:H5'	2.18	0.43
2:N:757:PRO:HG2	2:N:984:HIS:HE1	1.83	0.43
2:N:1214:PRO:O	2:N:1214:PRO:HG2	2.18	0.43
2:B:97:VAL:O	2:B:97:VAL:CG1	2.66	0.43
2:N:1050:ILE:HG22	2:N:1051:THR:N	2.32	0.43
1:A:590:ARG:HH11	1:A:590:ARG:HG2	1.83	0.43
8:H:145:ARG:O	8:H:146:ARG:CB	2.66	0.43
1:M:54:ASN:CB	1:M:247:ARG:HH12	2.22	0.43
1:M:54:ASN:HB3	1:M:247:ARG:NH1	2.20	0.43
2:B:797:TYR:HE1	2:B:854:LEU:HD23	1.82	0.43
10:J:53:HIS:HE1	10:J:55:ASP:OD1	2.01	0.43
12:L:26:THR:HG23	12:L:62:LYS:HZ1	1.82	0.43
2:B:847:ASP:O	2:B:849:GLY:N	2.51	0.43
3:C:69:LEU:O	10:J:6:ARG:HD2	2.17	0.43
2:B:999:MET:HB3	2:B:1007:VAL:CG2	2.47	0.43
1:A:718:VAL:O	1:A:721:PHE:HB2	2.18	0.43
2:B:129:PHE:CE2	2:B:166:PHE:HD1	2.36	0.43
5:Q:98:ILE:HA	5:Q:101:GLN:HB3	2.00	0.43
3:O:73:GLN:NE2	3:O:75:MET:H	2.04	0.43
2:N:1116:ARG:HG3	2:N:1198:TYR:CD2	2.53	0.43
2:N:1197:PRO:HG2	2:N:1200:ALA:HB2	2.00	0.43
2:N:679:TYR:HE1	2:N:687:GLU:OE2	2.00	0.43
1:A:185:TRP:CE3	1:A:185:TRP:N	2.83	0.43
4:D:138:ASN:C	4:D:140:ASP:N	2.71	0.43
2:N:291:ILE:HG22	2:N:297:ILE:HG12	1.99	0.43
11:W:102:LYS:O	11:W:106:GLU:HG3	2.17	0.43
3:O:241:ASP:HB3	11:W:109:TRP:CE2	2.52	0.43
5:E:135:PHE:HD2	5:E:140:LEU:CD2	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:461:LEU:N	2:N:461:LEU:CD1	2.80	0.43
1:A:140:THR:HA	1:A:143:LYS:HE2	2.00	0.43
2:N:1004:GLU:OE1	10:V:42:LYS:HE2	2.18	0.43
9:I:56:ALA:O	9:I:57:GLY:O	2.36	0.43
8:H:84:ALA:CA	8:H:87:ARG:HD2	2.47	0.43
2:N:114:PRO:O	2:N:115:GLN:C	2.55	0.43
2:B:916:THR:HB	2:B:935:ARG:HG3	1.99	0.43
2:B:918:ILE:HD12	2:B:935:ARG:CZ	2.48	0.43
2:B:957:ASN:O	2:B:960:GLY:N	2.52	0.43
12:L:47:ARG:CG	12:L:52:GLY:HA2	2.48	0.43
1:M:1278:ASN:O	1:M:1310:GLY:HA3	2.18	0.43
3:C:233:GLU:OE1	10:J:12:LYS:HE2	2.18	0.43
7:S:127:PRO:HA	7:S:128:PRO:HD3	1.94	0.43
2:N:942:ARG:HB2	2:N:945:GLU:HB2	2.00	0.43
1:M:1218:GLN:O	1:M:1221:LYS:HG3	2.18	0.43
1:M:718:VAL:O	1:M:721:PHE:HB2	2.17	0.43
1:M:268:ASP:HB3	1:M:299:HIS:ND1	2.32	0.43
6:F:76:LYS:O	6:F:79:ARG:HD3	2.18	0.43
5:Q:78:LEU:HD21	5:Q:80:VAL:HG23	1.99	0.43
2:N:100:PRO:HD2	2:N:180:TYR:CE1	2.53	0.43
3:C:166:GLU:C	11:K:6:ARG:NH1	2.72	0.43
10:J:37:SER:OG	10:J:47:ARG:NH2	2.51	0.43
1:M:80:HIS:H	1:M:243:PRO:HB3	1.83	0.43
5:Q:55:ARG:HD2	5:Q:113:GLN:HE21	1.83	0.43
1:A:856:THR:HG21	1:A:1370:LEU:HD21	2.00	0.43
10:V:27:GLU:O	10:V:29:GLU:N	2.51	0.43
2:N:51:PHE:HB2	2:N:173:MET:HE1	2.00	0.43
2:B:629:ASP:HB3	2:B:632:ARG:CD	2.49	0.43
2:N:387:LEU:H	2:N:387:LEU:HD12	1.84	0.43
1:A:1220:PHE:O	1:A:1221:LYS:HB2	2.17	0.43
1:M:645:LEU:HG	1:M:649:ILE:HD12	1.99	0.43
2:N:229:ALA:HB1	2:N:231:PRO:HD2	2.00	0.43
8:H:58:THR:O	8:H:142:LEU:HD12	2.18	0.43
12:X:34:CYS:O	12:X:35:SER:C	2.56	0.43
1:A:75:ASN:O	1:A:76:GLU:CB	2.65	0.43
1:M:1164:PRO:HG2	1:M:1165:GLU:H	1.83	0.43
2:N:622:LYS:HZ1	9:U:59:VAL:HG13	1.79	0.43
1:M:571:LEU:HD22	8:T:46:LEU:HD11	2.00	0.43
1:A:1112:LYS:O	1:A:1114:PRO:CD	2.63	0.43
5:Q:191:LYS:O	5:Q:192:ARG:C	2.56	0.43
6:R:89:GLU:C	6:R:93:ILE:HD12	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:774:ARG:HG2	1:M:774:ARG:H	1.31	0.43
5:Q:28:TYR:C	5:Q:65:THR:HG23	2.39	0.43
4:P:40:HIS:HE1	7:S:74:TYR:O	2.00	0.43
2:N:871:THR:HG22	2:N:872:GLU:O	2.18	0.43
2:B:236:HIS:CE1	2:B:389:ALA:HA	2.53	0.43
1:M:709:THR:HB	1:M:712:GLU:H	1.83	0.43
8:T:108:SER:O	8:T:109:LYS:HB3	2.18	0.43
2:N:351:TYR:CD1	2:N:355:ILE:HD11	2.54	0.43
1:A:1323:ASP:C	1:A:1325:THR:H	2.21	0.43
1:A:832:ALA:O	13:1:18:DA:H5'	2.17	0.43
9:U:58:VAL:HG13	9:U:62:ILE:CD1	2.48	0.43
1:A:1021:LEU:O	1:A:1024:SER:HB3	2.19	0.43
1:A:492:PRO:C	1:A:493:GLN:HE21	2.22	0.43
3:C:31:ASN:O	3:C:35:ARG:HG3	2.17	0.43
11:K:18:LYS:HA	11:K:18:LYS:HD3	1.83	0.43
8:T:77:ARG:HG2	8:T:78:SER:H	1.82	0.43
3:C:109:SER:O	3:C:110:THR:C	2.56	0.43
5:Q:108:GLY:O	5:Q:132:ILE:HG23	2.19	0.43
8:T:57:VAL:HG12	8:T:58:THR:N	2.33	0.43
4:P:145:MET:O	4:P:149:THR:HB	2.19	0.43
4:P:191:ALA:C	4:P:193:THR:N	2.72	0.43
4:P:193:THR:HG22	4:P:194:LEU:HG	2.00	0.43
1:A:821:ARG:O	1:A:825:ILE:HG13	2.17	0.43
1:M:40:THR:CG2	1:M:41:MET:HG3	2.47	0.43
1:M:71:GLN:C	1:M:73:GLY:N	2.71	0.43
2:B:798:TYR:HD2	2:B:798:TYR:N	2.16	0.43
2:B:708:GLU:O	2:B:709:ASP:C	2.57	0.43
7:S:1:MET:O	7:S:3:PHE:CZ	2.71	0.43
2:B:614:SER:C	2:B:615:MET:HG3	2.38	0.43
3:C:242:GLN:C	3:C:244:VAL:N	2.72	0.43
1:A:1444:MET:HE1	6:F:135:ARG:HB2	2.00	0.43
2:N:792:MET:HE1	13:4:24:DG:P	2.58	0.43
2:B:1095:LEU:C	2:B:1096:ARG:O	2.55	0.43
2:B:642:ASP:HB3	2:B:649:LYS:CG	2.48	0.43
2:N:864:LYS:HG3	2:N:872:GLU:OE1	2.19	0.43
1:M:245:PRO:O	1:M:248:PRO:HD3	2.19	0.43
1:M:1402:PHE:CE1	1:M:1403:GLU:HG2	2.54	0.43
5:Q:48:ASP:HB3	5:Q:54:GLN:CD	2.38	0.43
1:A:839:ARG:NH1	1:A:1402:PHE:HD1	2.17	0.43
1:M:532:ARG:O	1:M:535:THR:HB	2.18	0.43
1:M:738:LYS:HG3	1:M:740:LEU:HG	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1235:LYS:O	1:A:1237:ILE:HD12	2.18	0.43
2:N:662:MET:HA	2:N:665:GLU:CG	2.46	0.43
1:M:1242:VAL:CG1	1:M:1243:VAL:H	2.29	0.43
3:O:260:LEU:O	3:O:263:THR:HB	2.18	0.43
5:E:17:ARG:O	5:E:20:LYS:HB2	2.18	0.43
3:O:37:MET:CE	3:O:176:ILE:HD13	2.48	0.43
4:D:12:ARG:NH1	4:D:14:ARG:N	2.66	0.43
2:B:67:SER:HB3	2:B:92:PHE:HD1	1.83	0.43
1:M:374:LEU:O	1:M:436:ILE:HG12	2.17	0.43
1:A:115:LEU:CG	1:A:142:CYS:HB3	2.47	0.43
1:M:856:THR:HG21	1:M:1370:LEU:HD21	2.00	0.43
1:A:173:THR:O	1:A:173:THR:HG22	2.19	0.43
1:A:1169:ILE:HG13	1:A:1169:ILE:H	1.49	0.43
8:H:91:ASP:O	8:H:93:TYR:N	2.47	0.43
2:N:110:HIS:HB2	12:X:54:ARG:NH2	2.34	0.43
2:B:1115:THR:HG22	2:B:1117:GLN:CG	2.49	0.43
5:E:90:VAL:HB	5:E:117:THR:HG21	2.00	0.43
1:A:253:ASN:ND2	2:B:935:ARG:HB2	2.34	0.43
2:N:830:TYR:CE2	2:N:1000:PRO:HD3	2.52	0.43
1:M:826:ASP:OD1	1:M:826:ASP:C	2.56	0.43
2:N:750:GLY:O	2:N:751:VAL:C	2.56	0.43
12:X:44:ASP:O	12:X:45:ALA:HB3	2.18	0.43
3:C:123:ASN:HD21	3:C:125:MET:HA	1.82	0.43
1:M:1308:THR:HG23	1:M:1309:ASP:H	1.82	0.43
3:C:65:HIS:CE1	3:C:69:LEU:HD11	2.54	0.43
7:G:151:ILE:HG12	7:S:114:LEU:CD1	2.48	0.43
1:A:913:LEU:HD13	1:A:981:LEU:O	2.19	0.43
2:B:129:PHE:HE2	2:B:166:PHE:CD1	2.37	0.43
9:U:50:THR:CG2	9:U:51:ASN:N	2.67	0.43
13:4:12:DG:H1'	13:4:13:DT:O5'	2.19	0.43
1:A:1074:GLU:HB3	1:A:1075:PRO:CD	2.49	0.43
2:N:916:THR:HB	2:N:935:ARG:CG	2.47	0.43
2:B:287:ARG:HG2	2:B:292:ILE:HG12	2.00	0.43
2:N:860:MET:SD	2:N:861:ASP:N	2.91	0.43
2:B:313:MET:HE1	2:B:390:LEU:HG	2.01	0.43
8:T:128:ASN:C	8:T:128:ASN:HD22	2.22	0.43
9:U:100:PHE:N	9:U:100:PHE:HD1	2.16	0.43
1:M:451:HIS:O	1:M:452:LYS:C	2.56	0.43
1:A:532:ARG:HH22	1:A:745:GLN:HG2	1.84	0.43
1:A:535:THR:HG21	1:A:616:VAL:CA	2.46	0.43
7:S:80:LYS:O	7:S:82:PHE:CE1	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:314:LEU:O	2:B:317:CYS:HB2	2.19	0.43
2:N:1084:GLN:OE1	3:O:189:THR:CG2	2.67	0.43
3:O:186:LEU:O	3:O:187:LYS:HB2	2.19	0.43
5:Q:79:TRP:NE1	5:Q:81:GLU:HB2	2.33	0.43
3:O:258:ILE:O	3:O:262:LEU:HG	2.18	0.43
1:A:295:LEU:O	1:A:298:PHE:HB3	2.19	0.43
2:B:570:VAL:CG2	2:B:573:GLN:HB3	2.48	0.43
11:K:12:LEU:HD12	11:K:12:LEU:HA	1.80	0.43
2:B:664:THR:CG2	2:B:678:GLU:N	2.81	0.43
1:M:1299:VAL:HG12	1:M:1300:LYS:H	1.84	0.43
2:B:231:PRO:HG2	2:B:231:PRO:O	2.19	0.43
1:A:1409:LEU:CD1	2:B:1207:LEU:HD21	2.49	0.43
2:B:821:GLN:OE1	2:B:850:LEU:HD12	2.18	0.43
9:I:4:PHE:CD1	9:I:4:PHE:C	2.92	0.43
1:M:853:ASP:C	1:M:853:ASP:OD1	2.57	0.43
2:N:102:VAL:CG2	2:N:112:LEU:HD22	2.49	0.43
4:P:207:LEU:HD11	4:P:211:LEU:HD11	2.00	0.43
4:P:219:THR:CG2	4:P:220:LEU:N	2.82	0.43
1:A:549:MET:HE1	1:A:656:TRP:HD1	1.83	0.43
2:N:708:GLU:O	2:N:709:ASP:C	2.57	0.43
1:M:351:THR:HG21	2:N:1103:ILE:CG1	2.49	0.43
2:B:112:LEU:HD12	2:B:113:TYR:H	1.82	0.43
3:C:56:THR:HG22	3:C:57:VAL:N	2.25	0.43
1:M:593:GLU:O	1:M:595:THR:N	2.45	0.43
2:B:589:VAL:CG1	2:B:590:HIS:N	2.79	0.43
8:T:84:ALA:HA	8:T:87:ARG:HG3	2.00	0.43
5:Q:154:ILE:HG22	5:Q:155:ARG:O	2.19	0.43
2:N:999:MET:HB3	2:N:1007:VAL:HG21	2.01	0.43
2:B:254:LEU:HD12	2:B:272:THR:O	2.18	0.43
1:M:722:LEU:HB3	1:M:799:PHE:CD1	2.53	0.43
1:A:1030:ARG:HG2	1:A:1034:GLU:OE2	2.19	0.43
2:N:363:HIS:O	2:N:364:ILE:CB	2.67	0.43
2:N:878:GLN:HB2	2:N:879:ARG:HH11	1.82	0.43
1:A:1315:GLU:C	1:A:1317:MET:N	2.72	0.43
1:A:79:GLY:H	2:B:1205:GLN:HE22	1.65	0.43
2:N:657:HIS:O	2:N:660:LYS:HB3	2.18	0.43
6:F:97:ARG:O	6:F:101:ILE:HG13	2.18	0.43
6:R:109:VAL:CG1	6:R:110:ASP:H	2.31	0.43
2:N:311:LEU:O	2:N:314:LEU:N	2.51	0.43
2:N:291:ILE:CD1	2:N:300:HIS:NE2	2.82	0.43
2:N:1001:PHE:CE2	3:O:34:ARG:CZ	3.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:V:17:LYS:HG2	10:V:39:LEU:HB3	2.01	0.43
2:N:108:VAL:HG23	2:N:109:THR:H	1.82	0.43
2:N:44:VAL:O	2:N:45:SER:C	2.56	0.43
1:M:1146:VAL:HG12	1:M:1201:ALA:HB1	2.00	0.43
10:J:32:GLU:OE2	10:J:32:GLU:N	2.32	0.43
2:B:567:GLU:HA	2:B:567:GLU:OE1	2.19	0.43
7:G:132:SER:HB3	7:G:135:ASP:H	1.83	0.43
1:A:409:SER:O	1:A:410:GLY:C	2.57	0.43
1:A:1418:LEU:HD23	2:B:1222:ARG:HD2	1.99	0.43
3:O:67:LEU:HA	3:O:70:ILE:HD12	2.01	0.43
1:A:49:LYS:HD3	1:A:55:ASP:HB3	1.99	0.43
1:A:67:CYS:O	1:A:67:CYS:SG	2.77	0.43
4:P:138:ASN:O	4:P:140:ASP:N	2.52	0.43
10:J:53:HIS:NE2	10:J:55:ASP:HA	2.34	0.43
1:A:353:ILE:HD11	1:A:480:ALA:HB1	2.00	0.43
12:L:44:ASP:O	12:L:45:ALA:HB3	2.19	0.43
5:E:12:LEU:HD22	5:E:55:ARG:CZ	2.49	0.43
1:A:524:VAL:O	1:A:525:GLN:C	2.57	0.43
1:M:825:ILE:HD12	2:N:513:GLN:HG2	2.00	0.43
12:X:40:LEU:HD22	12:X:44:ASP:CG	2.38	0.43
1:M:1116:LEU:HB3	1:M:1308:THR:CG2	2.47	0.43
2:N:281:PRO:O	2:N:283:VAL:N	2.52	0.43
1:A:1341:ILE:HD12	1:A:1379:GLY:C	2.36	0.43
1:M:185:TRP:CE3	1:M:185:TRP:N	2.84	0.43
9:U:55:THR:CG2	9:U:100:PHE:HD2	2.26	0.43
1:M:698:GLN:NE2	9:U:99:LEU:HD21	2.33	0.43
5:Q:96:PHE:CZ	5:Q:100:ILE:HD11	2.54	0.43
10:J:36:LEU:HD12	10:J:47:ARG:HH11	1.80	0.43
1:M:22:PHE:HE2	1:M:26:GLU:HG2	1.83	0.43
7:S:21:ARG:HD3	7:S:21:ARG:HA	1.78	0.43
1:A:504:LEU:HD11	6:F:91:ALA:HB2	2.01	0.43
9:I:86:PHE:HE1	9:I:100:PHE:HB2	1.83	0.43
5:Q:129:PRO:O	5:Q:130:ALA:O	2.37	0.43
7:G:92:VAL:HG21	7:G:102:GLN:HB2	2.01	0.43
2:N:121:ASN:HA	2:N:207:GLY:CA	2.48	0.43
3:O:209:TYR:N	3:O:209:TYR:CD1	2.86	0.43
5:Q:35:VAL:C	5:Q:37:LEU:H	2.22	0.43
2:N:230:ALA:HB3	2:N:231:PRO:HD3	1.99	0.43
1:A:662:PHE:HD2	2:B:1014:PRO:HG3	1.84	0.43
6:R:152:ILE:HG22	6:R:153:VAL:N	2.33	0.43
11:W:70:ARG:HG3	11:W:70:ARG:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:522:VAL:HG12	2:N:523:CYS:N	2.34	0.43
2:B:1166:CYS:O	2:B:1168:LEU:N	2.47	0.43
1:A:40:THR:CG2	1:A:41:MET:HG3	2.42	0.43
4:P:123:LEU:HD13	4:P:149:THR:HG21	2.01	0.43
1:M:55:ASP:O	1:M:55:ASP:CG	2.54	0.43
2:N:618:ASP:OD2	2:N:621:GLU:HB3	2.18	0.43
2:B:603:LEU:HD12	2:B:609:ILE:HG12	2.01	0.43
2:B:935:ARG:HG3	2:B:935:ARG:O	2.19	0.43
1:M:826:ASP:HA	1:M:829:VAL:HG23	1.99	0.43
7:G:127:PRO:HA	7:G:128:PRO:HD3	1.94	0.43
2:B:363:HIS:O	2:B:364:ILE:CB	2.63	0.43
1:M:1308:THR:CG2	1:M:1309:ASP:N	2.68	0.43
7:S:138:THR:CG2	7:S:139:ILE:HG22	2.39	0.43
2:N:90:ILE:HD12	2:N:432:MET:CE	2.49	0.43
6:F:89:GLU:CG	6:F:134:ILE:HD13	2.46	0.43
5:Q:90:VAL:HA	5:Q:120:ALA:HB2	1.99	0.43
2:B:390:LEU:O	2:B:392:ARG:N	2.52	0.43
2:N:778:MET:HE1	2:N:1094:ARG:CD	2.40	0.43
2:B:861:ASP:OD1	2:B:862:GLN:N	2.52	0.43
7:G:18:PHE:HA	7:G:22:MET:HE3	2.00	0.43
2:N:294:ASP:OD2	2:N:294:ASP:N	2.51	0.43
1:A:993:LEU:CD2	1:A:1022:LEU:HD21	2.49	0.43
1:M:1121:GLU:O	1:M:1122:PRO:C	2.57	0.43
1:A:282:ASN:O	1:A:284:ALA:N	2.52	0.43
2:B:378:LEU:HD12	2:B:378:LEU:O	2.18	0.43
2:B:282:ILE:CD1	2:B:382:ILE:HD13	2.48	0.43
8:T:50:ALA:O	8:T:53:ASP:OD2	2.37	0.43
3:O:16:ASP:O	3:O:240:VAL:HG11	2.19	0.43
3:O:189:THR:HG22	3:O:190:ASP:H	1.79	0.43
5:Q:103:LYS:HB3	5:Q:105:PHE:CE2	2.54	0.43
2:N:866:TYR:HB2	2:N:870:ILE:HB	2.01	0.43
10:J:24:LEU:HA	10:J:28:ASP:HB2	2.01	0.43
6:R:97:ARG:HD2	6:R:97:ARG:HA	1.86	0.43
2:N:1165:ILE:HG21	4:P:17:LYS:HG3	2.00	0.43
4:P:15:LEU:O	4:P:17:LYS:N	2.44	0.43
2:B:431:TYR:CG	2:B:447:ALA:CB	3.02	0.43
4:P:57:LEU:HA	4:P:57:LEU:HD23	1.75	0.43
2:N:1009:ASP:C	2:N:1010:LEU:HD12	2.39	0.43
2:B:175:ARG:HA	2:B:175:ARG:HD2	1.87	0.43
5:Q:124:VAL:HB	5:Q:125:PRO:CD	2.49	0.43
1:A:593:GLU:C	1:A:595:THR:N	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:957:ASN:O	2:N:960:GLY:N	2.52	0.43
4:P:60:LYS:HE2	4:P:126:ILE:CG1	2.48	0.43
8:T:135:LEU:HB2	8:T:137:GLN:HE21	1.83	0.43
3:C:147:LEU:HB2	3:C:151:GLN:CB	2.41	0.43
1:A:770:VAL:HA	1:A:822:GLU:OE1	2.19	0.43
7:S:110:VAL:HG12	7:S:161:GLY:O	2.18	0.43
2:B:246:LYS:HA	2:B:249:ARG:NH2	2.34	0.43
2:B:405:ARG:HA	2:B:631:GLY:O	2.19	0.43
5:Q:104:ASN:HD22	5:Q:104:ASN:HA	1.52	0.43
2:N:363:HIS:O	2:N:364:ILE:HB	2.18	0.43
11:W:101:LEU:C	11:W:101:LEU:HD23	2.39	0.43
2:B:324:ILE:HG22	2:B:324:ILE:O	2.19	0.43
1:M:1402:PHE:CZ	1:M:1403:GLU:HG2	2.54	0.43
1:A:1120:LEU:HD12	1:A:1120:LEU:C	2.39	0.43
1:A:1293:SER:HB2	1:A:1299:VAL:CG2	2.49	0.43
2:N:594:ALA:HA	2:N:617:ARG:NH1	2.34	0.43
1:A:1239:ARG:HH11	1:A:1239:ARG:HB3	1.84	0.43
1:M:330:LYS:O	1:M:334:GLY:HA3	2.19	0.43
4:P:8:PHE:CD2	7:S:6:ASP:O	2.71	0.43
2:N:840:ILE:HG21	2:N:994:TYR:HD1	1.83	0.43
2:B:616:ILE:CG2	2:B:700:SER:OG	2.67	0.43
1:A:350:ARG:CB	2:B:1128:LEU:HD11	2.46	0.43
2:N:727:LYS:HE2	2:N:1049:ASP:OD1	2.19	0.43
8:T:62:SER:OG	8:T:64:ASN:ND2	2.51	0.43
10:V:24:LEU:HA	10:V:28:ASP:HB2	1.99	0.43
2:N:447:ALA:O	2:N:449:ASN:N	2.52	0.43
2:B:257:LYS:HB3	2:B:258:LEU:H	1.55	0.43
2:N:1017:ILE:H	2:N:1018:PRO:HD2	1.84	0.43
9:U:82:GLU:HB3	9:U:104:LEU:HD12	1.99	0.43
1:M:701:LEU:HD21	9:U:114:GLN:HB2	2.01	0.43
1:M:1445:ILE:HD13	7:S:70:PHE:CE2	2.54	0.43
1:A:374:LEU:O	1:A:436:ILE:HG12	2.18	0.43
5:Q:82:PHE:O	5:Q:83:CYS:HB2	2.18	0.43
1:M:1410:PHE:HA	2:N:1212:ILE:CD1	2.49	0.43
1:M:1280:GLU:HB3	1:M:1281:ARG:H	1.60	0.43
9:I:4:PHE:HD1	9:I:5:ARG:N	2.16	0.43
3:C:209:TYR:H	3:C:209:TYR:HD1	1.63	0.43
2:N:487:THR:CG2	2:N:488:TYR:N	2.82	0.43
3:C:254:LYS:HB3	11:K:42:LEU:HD11	2.01	0.43
9:I:88:SER:C	9:I:90:GLN:H	2.22	0.43
8:H:26:ILE:O	8:H:27:GLU:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:T:58:THR:O	8:T:59:ILE:HG13	2.19	0.42
1:A:33:ALA:HB1	1:A:56:PRO:HB2	2.00	0.42
4:P:185:CYS:O	4:P:211:LEU:HD22	2.19	0.42
4:P:209:ARG:HA	4:P:212:LYS:HD2	1.99	0.42
2:B:521:LEU:HB3	2:B:633:VAL:CG1	2.47	0.42
2:B:557:PHE:HZ	2:B:603:LEU:HD21	1.83	0.42
12:L:29:TYR:O	12:L:30:ILE:CG1	2.66	0.42
3:O:104:PHE:HE2	3:O:150:GLY:HA2	1.84	0.42
1:A:1444:MET:CG	7:G:59:GLY:O	2.67	0.42
2:B:203:PHE:N	2:B:203:PHE:HD1	2.16	0.42
2:N:384:ARG:HH12	2:N:393:LYS:CD	2.31	0.42
11:W:59:ALA:HA	11:W:74:ARG:O	2.19	0.42
8:T:128:ASN:C	8:T:128:ASN:ND2	2.72	0.42
1:A:1208:THR:O	1:A:1209:MET:C	2.56	0.42
2:N:659:ALA:HA	2:N:662:MET:CE	2.49	0.42
1:A:1121:GLU:O	1:A:1122:PRO:C	2.57	0.42
2:B:654:ARG:NH1	2:B:654:ARG:HG3	2.33	0.42
1:A:1148:ILE:HD11	1:A:1198:ASP:CA	2.46	0.42
4:P:5:THR:HG23	7:S:42:PHE:CE1	2.53	0.42
4:D:7:THR:HG21	4:D:32:GLU:CD	2.39	0.42
2:B:1017:ILE:H	2:B:1018:PRO:HD2	1.84	0.42
1:A:219:PHE:CE1	1:A:230:ARG:HB3	2.54	0.42
11:W:21:ILE:HD13	11:W:84:LYS:HE3	2.00	0.42
1:A:500:GLU:O	1:A:504:LEU:HB2	2.19	0.42
1:A:1173:HIS:CD2	1:A:1227:ILE:HG23	2.54	0.42
2:N:483:LEU:HD11	2:N:491:THR:HG22	1.99	0.42
8:H:51:ALA:O	8:H:52:GLN:CB	2.67	0.42
2:N:731:VAL:HG12	2:N:734:HIS:NE2	2.34	0.42
2:B:51:PHE:CD2	2:B:173:MET:HB3	2.54	0.42
3:O:101:LEU:CD1	3:O:118:LEU:HD23	2.49	0.42
1:A:1100:ARG:NH2	1:A:1351:GLU:CG	2.82	0.42
1:M:846:GLU:HB2	1:M:847:ASP:H	1.67	0.42
4:D:166:LEU:HD23	4:D:214:LEU:CD2	2.49	0.42
2:B:910:VAL:HG13	2:B:938:SER:HB3	2.01	0.42
8:H:56:THR:O	8:H:144:ILE:HA	2.19	0.42
1:A:65:LEU:HD13	1:A:71:GLN:OE1	2.19	0.42
4:P:52:LEU:H	4:P:182:SER:HB3	1.84	0.42
1:M:1156:PRO:HA	1:M:1190:PRO:CB	2.49	0.42
1:M:69:THR:HB	2:N:1174:LYS:HE2	2.01	0.42
1:A:98:LYS:O	1:A:102:VAL:HG23	2.19	0.42
1:M:598:LEU:CD2	8:T:25:ARG:NH1	2.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:109:HIS:H	1:M:210:ILE:HD11	1.84	0.42
1:A:1308:THR:CG2	1:A:1309:ASP:N	2.68	0.42
1:A:1311:VAL:HG21	1:A:1329:THR:CG2	2.49	0.42
12:L:70:ARG:HH11	12:L:70:ARG:HG2	1.84	0.42
2:N:899:ILE:CD1	2:N:911:ILE:HA	2.47	0.42
2:N:334:ILE:CG2	2:N:334:ILE:O	2.66	0.42
2:N:335:GLY:O	2:N:336:ARG:HB2	2.19	0.42
2:B:125:SER:O	2:B:126:SER:HB3	2.19	0.42
1:A:1035:TYR:O	1:A:1036:ARG:HB2	2.19	0.42
1:A:92:HIS:O	1:A:93:VAL:C	2.57	0.42
1:M:1081:LEU:HD11	1:M:1097:GLY:CA	2.45	0.42
8:H:128:ASN:ND2	8:H:128:ASN:C	2.71	0.42
4:D:138:ASN:O	4:D:140:ASP:N	2.52	0.42
1:A:523:ILE:CG2	1:A:527:THR:HG22	2.49	0.42
10:V:44:TYR:N	10:V:44:TYR:CD2	2.78	0.42
2:N:1106:ARG:HG3	2:N:1107:ALA:N	2.34	0.42
1:M:469:ARG:NH2	2:N:991:GLY:O	2.52	0.42
8:T:61:SER:O	8:T:62:SER:HB2	2.19	0.42
7:G:51:TYR:C	7:G:51:TYR:CD2	2.93	0.42
5:E:43:LYS:O	5:E:45:LYS:N	2.52	0.42
1:M:1215:ARG:O	1:M:1219:THR:N	2.48	0.42
1:A:883:LEU:HD21	1:A:1021:LEU:HB2	2.00	0.42
2:N:247:GLY:C	2:N:249:ARG:N	2.71	0.42
3:O:179:GLU:O	3:O:180:TYR:HB3	2.20	0.42
5:Q:182:ASP:HB3	5:Q:185:ALA:CB	2.48	0.42
4:P:183:LEU:HA	4:P:183:LEU:HD23	1.46	0.42
5:Q:124:VAL:N	5:Q:125:PRO:HD2	2.34	0.42
1:A:599:SER:HA	1:A:600:PRO:HD2	1.81	0.42
8:H:113:ALA:HB1	8:H:124:ARG:HE	1.84	0.42
9:I:101:PHE:N	9:I:101:PHE:HD1	2.15	0.42
4:P:190:GLU:HA	7:S:167:TYR:HD1	1.77	0.42
2:B:508:LEU:O	2:B:509:ALA:CB	2.66	0.42
5:E:124:VAL:N	5:E:125:PRO:HD2	2.33	0.42
1:M:353:ILE:HD11	1:M:480:ALA:HB1	2.01	0.42
2:B:744:HIS:CD2	2:B:745:PRO:CD	2.80	0.42
2:B:604:ARG:CA	2:B:609:ILE:HG13	2.49	0.42
2:B:832:GLY:O	2:B:835:GLN:NE2	2.52	0.42
2:B:357:GLN:CD	2:B:368:GLU:HA	2.40	0.42
2:B:364:ILE:HG13	2:B:585:VAL:HG22	2.00	0.42
7:S:111:THR:O	7:S:114:LEU:N	2.47	0.42
8:H:100:THR:HG22	8:H:101:ALA:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:666:ILE:HD11	2:N:1067:ARG:O	2.19	0.42
1:A:1378:GLN:HG2	5:E:177:ARG:NH1	2.35	0.42
5:Q:65:THR:O	5:Q:69:ILE:HD12	2.19	0.42
2:N:980:PHE:CE2	2:N:1094:ARG:HG3	2.54	0.42
1:M:908:LEU:CD1	1:M:983:ILE:HD11	2.49	0.42
2:B:773:MET:SD	2:B:987:LYS:HD2	2.58	0.42
1:A:1239:ARG:HH12	1:A:1241:ARG:NH1	2.18	0.42
1:M:219:PHE:CZ	1:M:230:ARG:HB3	2.55	0.42
5:E:14:ARG:NH2	5:E:141:VAL:HG12	2.28	0.42
1:A:741:ASN:C	1:A:741:ASN:HD22	2.22	0.42
9:I:62:ILE:HG12	9:I:62:ILE:O	2.19	0.42
1:M:1206:ASP:O	1:M:1274:ARG:NH1	2.51	0.42
2:N:274:PRO:O	2:N:275:TYR:HB2	2.19	0.42
1:M:320:ARG:NE	1:M:323:LYS:HZ2	2.18	0.42
9:I:100:PHE:N	9:I:100:PHE:HD1	2.17	0.42
1:A:608:ILE:HD12	1:A:613:ILE:CD1	2.49	0.42
2:N:821:GLN:HE22	2:N:851:PHE:HA	1.84	0.42
1:M:942:PHE:HZ	5:Q:207:ARG:HG3	1.83	0.42
2:B:769:TYR:C	2:B:771:SER:N	2.73	0.42
1:M:1312:ASN:O	1:M:1316:VAL:HG23	2.18	0.42
7:G:91:VAL:HG23	7:G:141:SER:O	2.19	0.42
3:C:27:LEU:O	3:C:28:ALA:C	2.58	0.42
1:A:1150:SER:HB3	1:A:1195:LEU:CD2	2.48	0.42
2:B:447:ALA:O	2:B:449:ASN:N	2.53	0.42
1:A:645:LEU:HD11	1:A:649:ILE:HD11	2.00	0.42
1:M:874:ASP:OD1	1:M:876:ALA:N	2.40	0.42
2:N:1166:CYS:O	2:N:1168:LEU:N	2.48	0.42
9:I:10:CYS:O	9:I:11:ASN:C	2.58	0.42
3:C:259:LEU:HD21	11:K:91:CYS:HB3	2.01	0.42
1:A:443:LEU:HD23	1:A:443:LEU:HA	1.76	0.42
3:O:77:ILE:HG23	3:O:161:LYS:HE3	2.02	0.42
4:P:203:SER:OG	4:P:206:GLU:HB2	2.20	0.42
8:H:26:ILE:CD1	8:H:49:VAL:CG1	2.98	0.42
1:A:567:LYS:HE3	8:H:46:LEU:HB2	2.01	0.42
10:V:3:VAL:CG2	10:V:18:TRP:CG	3.02	0.42
1:A:41:MET:HB2	1:A:49:LYS:HA	1.94	0.42
2:N:640:VAL:O	2:N:640:VAL:CG1	2.67	0.42
1:A:211:PHE:HA	1:A:214:ILE:HG13	2.01	0.42
2:B:879:ARG:HB2	2:B:880:THR:H	1.41	0.42
2:B:835:GLN:HE21	2:B:835:GLN:HB2	1.43	0.42
1:M:1033:GLN:O	1:M:1036:ARG:NH1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:100:GLN:HA	6:F:103:MET:HG3	2.00	0.42
2:N:70:ILE:H	2:N:429:PHE:HE1	1.67	0.42
1:A:1444:MET:HE2	1:A:1444:MET:N	2.34	0.42
1:M:722:LEU:HD23	1:M:799:PHE:CD1	2.55	0.42
2:B:427:ASP:HA	2:B:430:ARG:CG	2.49	0.42
6:F:76:LYS:HE3	6:F:150:GLU:OE2	2.18	0.42
5:Q:78:LEU:HD11	5:Q:109:ILE:HD12	2.00	0.42
1:M:276:LEU:HD21	1:M:293:GLU:HG3	2.01	0.42
1:M:711:ARG:NH2	9:U:87:GLN:OE1	2.52	0.42
2:B:468:GLU:OE1	2:B:470:LYS:HE3	2.19	0.42
3:O:249:ASP:O	3:O:252:GLN:HB3	2.19	0.42
13:1:16:DT:H2''	13:1:17:DT:O5'	2.19	0.42
1:M:225:ASN:C	1:M:225:ASN:ND2	2.73	0.42
1:M:897:TYR:CB	1:M:936:LEU:HD12	2.46	0.42
2:N:1132:GLU:O	2:N:1135:ARG:HB3	2.19	0.42
1:A:532:ARG:O	1:A:535:THR:HB	2.19	0.42
3:C:166:GLU:HG2	11:K:10:PHE:HZ	1.84	0.42
4:D:53:SER:OG	4:D:54:GLU:N	2.52	0.42
11:W:31:VAL:HG23	11:W:83:PRO:HG3	2.02	0.42
2:N:773:MET:O	2:N:775:LYS:N	2.51	0.42
7:S:4:ILE:HA	7:S:76:ALA:O	2.19	0.42
7:S:146:LYS:HB2	7:S:168:LEU:HD11	2.00	0.42
13:1:19:DT:H2'	13:1:20:DG:H8	1.84	0.42
12:L:46:VAL:O	12:L:46:VAL:HG12	2.20	0.42
2:B:796:LEU:HB3	2:B:799:PRO:HG3	2.02	0.42
1:M:655:PHE:O	1:M:658:LEU:HB3	2.19	0.42
4:P:53:SER:C	4:P:55:ALA:N	2.70	0.42
4:P:190:GLU:HG3	7:S:167:TYR:CD1	2.54	0.42
1:M:1166:ASP:OD2	1:M:1239:ARG:NE	2.52	0.42
1:A:203:SER:O	1:A:206:GLU:HB3	2.19	0.42
1:M:353:ILE:HD13	1:M:487:MET:CG	2.50	0.42
7:S:1:MET:O	7:S:2:PHE:C	2.57	0.42
8:T:135:LEU:HB2	8:T:137:GLN:NE2	2.35	0.42
4:P:14:ARG:HH12	4:P:16:LYS:NZ	2.18	0.42
7:G:126:ASN:HA	7:G:127:PRO:C	2.36	0.42
10:J:12:LYS:O	10:J:14:VAL:HG23	2.20	0.42
7:S:115:MET:CB	7:S:116:PRO:HD2	2.41	0.42
7:S:139:ILE:HG23	7:S:140:LYS:H	1.83	0.42
7:S:139:ILE:CG1	7:S:140:LYS:HG3	2.46	0.42
2:N:428:ILE:HG22	2:N:432:MET:CE	2.49	0.42
2:B:889:THR:HG23	2:B:891:ASP:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:331:LEU:HD21	2:N:353:LYS:HG2	2.01	0.42
1:A:1030:ARG:NH1	1:A:1035:TYR:OH	2.53	0.42
2:N:891:ASP:C	2:N:893:LEU:N	2.72	0.42
1:A:452:LYS:HB3	2:B:1141:HIS:CE1	2.55	0.42
2:N:884:ARG:O	2:N:936:ASP:CB	2.67	0.42
2:N:100:PRO:HA	2:N:125:SER:O	2.19	0.42
1:A:390:GLN:HE21	1:A:394:ASN:ND2	2.09	0.42
4:D:156:ASP:HB2	4:D:159:THR:CG2	2.50	0.42
4:D:156:ASP:O	4:D:157:GLN:C	2.57	0.42
2:N:390:LEU:O	2:N:392:ARG:N	2.52	0.42
5:Q:147:HIS:CD2	5:Q:149:LEU:H	2.37	0.42
1:A:1147:THR:HB	9:I:48:LEU:CD1	2.45	0.42
2:N:1208:MET:O	2:N:1211:ASN:N	2.47	0.42
11:K:33:ILE:HD13	11:K:87:LEU:HD22	2.00	0.42
5:E:81:GLU:HG2	5:E:82:PHE:O	2.19	0.42
2:N:257:LYS:HB3	2:N:258:LEU:H	1.57	0.42
5:E:134:THR:O	5:E:135:PHE:CD1	2.73	0.42
2:N:1182:CYS:SG	2:N:1185:CYS:HB2	2.60	0.42
2:N:769:TYR:O	2:N:772:ALA:N	2.50	0.42
7:S:9:LEU:HD23	7:S:30:LEU:HD12	2.01	0.42
1:M:1152:ILE:HG12	1:M:1260:LEU:HD23	2.01	0.42
1:A:139:TRP:O	1:A:140:THR:C	2.58	0.42
1:A:137:ALA:O	1:A:138:ILE:C	2.57	0.42
3:O:27:LEU:O	3:O:28:ALA:C	2.58	0.42
1:A:836:TYR:O	1:A:840:ARG:HD3	2.19	0.42
2:N:571:PRO:O	2:N:574:SER:O	2.37	0.42
1:A:1418:LEU:HD23	2:B:1222:ARG:CD	2.49	0.42
3:O:77:ILE:HA	3:O:77:ILE:HD13	1.86	0.42
1:A:672:ASP:OD2	1:A:674:PRO:HG2	2.18	0.42
1:A:1165:GLU:H	1:A:1165:GLU:HG2	1.61	0.42
7:G:62:LEU:HD13	7:G:62:LEU:HA	1.83	0.42
5:Q:88:VAL:HG21	5:Q:110:PHE:CE1	2.55	0.42
2:B:435:THR:C	2:B:437:GLU:H	2.21	0.42
6:F:105:ALA:HB1	6:F:106:PRO:CD	2.49	0.42
5:Q:89:GLY:C	5:Q:91:LYS:H	2.23	0.42
1:A:34:LYS:HG3	1:A:36:ARG:HH22	1.83	0.42
4:P:146:GLN:CA	4:P:149:THR:HG22	2.50	0.42
4:P:195:ILE:HB	4:P:198:LEU:CD1	2.49	0.42
4:P:209:ARG:HH11	4:P:209:ARG:CG	2.33	0.42
1:M:1161:THR:OG1	1:M:1239:ARG:NH2	2.53	0.42
2:N:578:THR:C	2:N:589:VAL:HG13	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:399:ASP:O	2:B:515:HIS:CD2	2.73	0.42
2:B:603:LEU:HB3	2:B:609:ILE:CD1	2.50	0.42
3:C:133:ILE:CD1	3:C:237:SER:HA	2.49	0.42
3:O:148:ARG:HB3	3:O:149:LYS:H	1.50	0.42
1:M:545:GLN:O	1:M:546:VAL:C	2.56	0.42
2:B:999:MET:HA	2:B:999:MET:HE2	2.02	0.42
2:B:1027:ILE:C	2:B:1029:CYS:N	2.73	0.42
1:M:787:PHE:CE1	1:M:796:SER:HA	2.54	0.42
4:P:71:LYS:CA	4:P:74:GLN:HB2	2.45	0.42
7:S:34:VAL:HG13	7:S:45:ILE:CD1	2.49	0.42
7:S:48:VAL:HG13	7:S:74:TYR:HD1	1.84	0.42
1:A:1072:ILE:O	1:A:1075:PRO:HG2	2.19	0.42
2:B:1181:GLU:HB2	2:B:1188:LYS:HG2	2.02	0.42
2:B:1068:GLY:O	2:B:1069:PHE:C	2.58	0.42
6:R:110:ASP:O	6:R:123:LYS:HE3	2.19	0.42
1:A:1205:LYS:O	1:A:1207:LEU:HG	2.20	0.42
2:B:1084:GLN:OE1	3:C:189:THR:CG2	2.67	0.42
4:D:7:THR:HG21	4:D:32:GLU:OE1	2.20	0.42
4:D:134:THR:HG22	4:D:136:GLY:H	1.84	0.42
1:A:973:ILE:O	1:A:973:ILE:HG22	2.19	0.42
5:Q:111:VAL:CG1	5:Q:137:GLU:HG2	2.50	0.42
1:M:270:LEU:HD12	1:M:270:LEU:HA	1.71	0.42
2:N:769:TYR:C	2:N:771:SER:N	2.73	0.42
1:M:1100:ARG:NH2	1:M:1351:GLU:CG	2.81	0.42
2:N:408:LEU:HD11	2:N:545:ILE:HD13	2.02	0.42
1:M:582:ILE:HA	1:M:583:PRO:HD2	1.88	0.42
2:B:1079:LYS:CA	3:C:27:LEU:HD21	2.50	0.42
1:M:208:LEU:C	1:M:208:LEU:CD2	2.88	0.42
2:B:229:ALA:HB1	2:B:231:PRO:HD2	2.02	0.42
9:U:109:ILE:HG22	9:U:109:ILE:O	2.19	0.42
2:B:1221:SER:O	2:B:1223:ASP:N	2.53	0.42
1:M:356:ASP:C	1:M:358:ASN:H	2.23	0.42
1:A:590:ARG:O	1:A:591:PHE:CB	2.63	0.42
1:A:598:LEU:HD12	8:H:115:TYR:CD2	2.54	0.42
1:M:49:LYS:NZ	1:M:60:SER:HA	2.33	0.42
1:M:49:LYS:HZ1	1:M:61:ILE:H	1.67	0.42
1:M:65:LEU:HD13	1:M:71:GLN:OE1	2.20	0.42
2:N:603:LEU:HD12	2:N:609:ILE:HG12	2.02	0.42
5:E:90:VAL:HA	5:E:120:ALA:HB2	2.01	0.42
2:B:189:LEU:CD1	2:B:196:PRO:HA	2.49	0.42
5:Q:191:LYS:HG3	5:Q:194:GLU:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:377:PHE:CE2	2:B:381:MET:HE2	2.54	0.42
7:S:129:SER:C	7:S:130:TYR:CD1	2.93	0.42
2:N:434:ARG:O	2:N:436:VAL:N	2.52	0.42
1:A:767:GLN:HA	1:A:799:PHE:HA	2.02	0.42
1:M:1341:ILE:HD12	1:M:1379:GLY:C	2.37	0.42
1:A:415:LEU:HA	1:A:415:LEU:HD23	1.78	0.42
5:Q:52:ARG:HA	5:Q:53:PRO:HD2	1.86	0.42
7:G:14:HIS:HD2	7:G:16:SER:CB	2.32	0.42
14:2:4:DA:C4	14:2:5:DC:C5	3.08	0.42
4:P:29:LEU:HD12	7:S:82:PHE:CE1	2.54	0.42
4:D:32:GLU:HG3	7:G:5:LYS:HE2	2.01	0.42
1:A:1003:LYS:O	1:A:1004:ASN:HB3	2.20	0.42
1:M:1003:LYS:O	1:M:1004:ASN:HB3	2.19	0.42
2:N:634:TYR:CE1	2:N:692:TYR:CD1	3.07	0.42
1:A:500:GLU:OE2	2:B:1145:SER:CB	2.66	0.42
3:C:116:LYS:HG3	3:C:117:ASP:OD1	2.19	0.42
2:B:488:TYR:CE2	2:B:813:LYS:HB2	2.54	0.42
2:N:47:GLN:O	2:N:173:MET:HE1	2.19	0.42
1:A:298:PHE:CZ	1:A:314:ALA:HB2	2.55	0.42
1:A:608:ILE:HD12	1:A:613:ILE:HD11	2.02	0.42
1:M:1312:ASN:ND2	1:M:1315:GLU:HG3	2.35	0.42
2:B:1106:ARG:HG3	2:B:1107:ALA:N	2.35	0.42
8:T:30:SER:HB3	8:T:36:CYS:HB3	2.01	0.42
4:D:61:GLU:O	4:D:64:VAL:HB	2.20	0.42
1:A:874:ASP:C	1:A:874:ASP:OD1	2.58	0.42
7:S:163:ILE:HG21	7:S:163:ILE:HD13	1.79	0.42
12:X:68:GLU:CD	12:X:68:GLU:H	2.11	0.42
1:M:783:THR:HG21	1:M:815:PHE:CZ	2.55	0.42
11:W:52:ASN:O	11:W:54:ARG:N	2.53	0.42
4:P:207:LEU:HG	4:P:211:LEU:HD12	2.02	0.42
1:A:563:PRO:HG3	1:A:572:TRP:CE2	2.52	0.42
1:M:69:THR:HG21	2:N:1174:LYS:HZ3	1.85	0.42
2:N:640:VAL:HG12	2:N:649:LYS:HG2	2.01	0.42
3:C:66:ARG:CZ	10:J:2:ILE:CG2	2.98	0.42
1:M:567:LYS:HE3	8:T:46:LEU:HD12	2.00	0.42
1:M:108:MET:O	1:M:109:HIS:HB3	2.20	0.42
1:A:351:THR:HG21	2:B:1103:ILE:CG1	2.47	0.42
2:B:745:PRO:O	2:B:747:MET:N	2.52	0.42
1:A:1111:MET:HB2	1:A:1111:MET:HE2	1.80	0.42
1:M:1057:VAL:HG12	1:M:1058:VAL:N	2.34	0.42
2:N:219:ALA:HB2	2:N:405:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:425:THR:HG22	2:N:426:LYS:N	2.35	0.42
1:M:316:GLN:HG2	1:M:317:LYS:HG2	2.01	0.42
1:A:722:LEU:HD23	1:A:799:PHE:CG	2.55	0.42
2:B:134:LYS:NZ	2:B:164:LYS:NZ	2.68	0.42
2:B:458:LYS:O	2:B:459:TYR:C	2.58	0.42
9:U:88:SER:C	9:U:90:GLN:H	2.23	0.42
1:A:93:VAL:HG21	1:A:301:ALA:O	2.19	0.42
1:A:1402:PHE:CE2	1:A:1403:GLU:HG2	2.55	0.42
1:M:1120:LEU:HD23	1:M:1304:TRP:O	2.19	0.42
1:M:310:GLY:C	1:M:312:PRO:HD2	2.39	0.42
2:N:63:ILE:HD12	2:N:63:ILE:HA	1.79	0.42
1:M:1011:GLN:NE2	1:M:1015:VAL:HG21	2.29	0.42
5:Q:17:ARG:O	5:Q:20:LYS:HB2	2.20	0.42
1:M:1207:LEU:HA	1:M:1211:GLN:OE1	2.20	0.42
2:N:976:ILE:O	2:N:990:ILE:HB	2.19	0.42
1:A:468:PHE:CE2	1:A:489:LEU:HD23	2.55	0.42
1:A:961:ARG:O	1:A:965:GLN:HG3	2.20	0.42
2:N:486:TYR:HD2	2:N:486:TYR:N	2.16	0.42
2:N:552:MET:O	2:N:554:ILE:N	2.53	0.42
1:A:1100:ARG:HH21	1:A:1351:GLU:CD	2.23	0.42
1:A:460:VAL:CG1	1:A:461:LYS:N	2.83	0.42
1:M:415:LEU:HD23	1:M:415:LEU:HA	1.70	0.42
5:E:26:ARG:HH12	5:E:133:GLU:CD	2.23	0.42
2:N:698:GLU:O	2:N:701:ILE:HG12	2.20	0.42
1:A:849:MET:HE1	1:A:1440:ALA:HB2	2.01	0.42
1:M:809:THR:H	1:M:812:GLU:HB2	1.85	0.42
2:B:711:GLU:HB2	2:B:712:PRO:CD	2.50	0.42
8:H:55:LEU:HD22	8:H:144:ILE:CG2	2.49	0.42
1:M:848:ILE:HA	1:M:857:ARG:O	2.19	0.42
4:P:198:LEU:HB2	4:P:199:ASN:H	1.59	0.42
8:H:98:TYR:C	8:H:118:PHE:HD2	2.24	0.42
1:M:108:MET:HE2	1:M:210:ILE:HD12	2.01	0.42
2:B:34:ILE:HG12	2:B:542:MET:HE1	2.00	0.42
3:O:105:GLY:O	3:O:149:LYS:O	2.37	0.42
2:N:31:TRP:HA	2:N:31:TRP:CE3	2.54	0.42
1:M:577:ILE:HA	1:M:580:VAL:HG23	2.01	0.42
2:N:508:LEU:O	2:N:509:ALA:CB	2.66	0.42
1:A:904:THR:HG22	1:A:904:THR:O	2.20	0.42
2:B:247:GLY:C	2:B:249:ARG:N	2.72	0.42
7:S:121:PHE:CD1	7:S:130:TYR:CE1	3.08	0.42
2:B:905:VAL:HG23	2:B:941:LEU:HD22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:123:THR:CB	2:B:458:LYS:HE2	2.49	0.42
1:M:385:ILE:CG2	1:M:386:ASP:N	2.81	0.42
1:M:426:LEU:O	1:M:427:GLN:HG2	2.19	0.42
1:M:672:ASP:OD2	1:M:674:PRO:HG2	2.20	0.42
2:N:1027:ILE:C	2:N:1029:CYS:N	2.73	0.42
2:N:278:GLN:CG	2:N:279:ASP:H	2.33	0.42
2:B:640:VAL:HG12	2:B:649:LYS:HG2	2.02	0.42
2:N:1094:ARG:HH21	2:N:1098:MET:HG2	1.85	0.42
11:W:47:ARG:HD2	11:W:47:ARG:C	2.39	0.42
1:M:172:PRO:HD3	1:M:185:TRP:NE1	2.34	0.42
2:B:39:ARG:HH21	2:B:665:GLU:HG2	1.81	0.42
1:A:1011:GLN:HE22	1:A:1015:VAL:HG23	1.83	0.42
3:O:8:VAL:CG1	3:O:9:LYS:N	2.80	0.42
4:D:175:PHE:O	4:D:178:ALA:HB3	2.20	0.42
2:B:842:ASN:HD22	2:B:845:SER:CB	2.33	0.42
9:U:17:ARG:HG3	9:U:28:GLU:OE1	2.19	0.42
2:N:225:VAL:HG11	2:N:385:LEU:HA	2.01	0.42
2:B:434:ARG:O	2:B:436:VAL:N	2.52	0.42
2:N:773:MET:HE2	2:N:985:GLY:HA2	2.01	0.42
2:B:610:ASN:HA	2:B:611:PRO:HD3	1.93	0.42
1:M:154:SER:HB3	1:M:162:VAL:CG2	2.50	0.42
2:N:1060:ARG:HD2	2:N:1060:ARG:HA	1.51	0.42
1:M:777:PHE:CD1	1:M:781:ASP:HA	2.55	0.42
6:R:72:LYS:HG2	6:R:72:LYS:H	1.69	0.42
11:K:53:ASP:HB3	11:K:56:VAL:HG23	2.00	0.42
2:N:838:SER:HA	2:N:989:THR:O	2.19	0.42
2:N:702:LEU:HG	2:N:738:PHE:HD2	1.85	0.42
10:V:1:MET:H1	10:V:56:LEU:CA	2.32	0.42
4:P:159:THR:HG21	4:P:219:THR:OG1	2.20	0.42
2:N:880:THR:CB	2:N:934:LYS:HD2	2.35	0.42
10:J:61:LEU:O	10:J:63:TYR:N	2.51	0.42
2:N:758:PHE:CE1	2:N:1027:ILE:CG2	3.02	0.42
11:K:65:HIS:NE2	11:K:67:PHE:CG	2.85	0.42
8:T:100:THR:HG22	8:T:101:ALA:N	2.35	0.42
1:M:709:THR:HG23	9:U:94:ASP:HA	2.01	0.42
2:N:1197:PRO:O	2:N:1198:TYR:C	2.57	0.42
2:N:1095:LEU:C	2:N:1096:ARG:O	2.57	0.42
2:N:423:LYS:HD2	2:N:470:LYS:HZ1	1.85	0.42
2:N:778:MET:HE2	2:N:1094:ARG:O	2.20	0.42
4:D:123:LEU:HD13	4:D:149:THR:HG21	2.01	0.42
1:M:973:ILE:HG12	1:M:1038:THR:HG23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:622:VAL:HG22	1:A:622:VAL:O	2.20	0.42
2:N:840:ILE:HB	2:N:1011:ILE:HB	2.02	0.42
4:D:16:LYS:O	4:D:18:VAL:N	2.45	0.42
5:Q:61:GLN:HG2	5:Q:62:ALA:H	1.84	0.42
5:E:82:PHE:O	5:E:83:CYS:HB2	2.19	0.42
1:M:252:PHE:HB2	1:M:256:GLN:NE2	2.35	0.42
1:M:1029:ARG:CG	1:M:1029:ARG:NH1	2.83	0.42
1:A:1428:VAL:HG13	2:B:1151:LEU:CD2	2.49	0.42
2:N:274:PRO:HG2	2:N:359:GLU:HB3	2.02	0.42
2:N:1185:CYS:HA	4:P:17:LYS:HE3	2.02	0.42
2:B:695:ALA:O	2:B:698:GLU:HB3	2.19	0.42
1:M:583:PRO:O	1:M:610:GLY:HA3	2.20	0.42
1:A:370:ILE:HG23	1:A:374:LEU:HD12	2.02	0.42
2:N:1160:VAL:HG11	2:N:1169:MET:SD	2.60	0.42
1:M:137:ALA:O	1:M:138:ILE:C	2.58	0.42
1:A:996:ASN:C	1:A:998:LEU:HD12	2.40	0.42
1:A:1264:GLU:OE2	9:I:46:HIS:CD2	2.72	0.42
1:A:848:ILE:HA	1:A:857:ARG:O	2.20	0.41
10:J:1:MET:H1	10:J:56:LEU:CA	2.32	0.41
1:A:1161:THR:HG22	1:A:1163:ILE:HG13	2.02	0.41
12:X:38:LEU:O	12:X:39:SER:CB	2.68	0.41
1:A:254:GLU:HB3	1:A:255:SER:H	1.46	0.41
2:B:877:PRO:C	2:B:878:GLN:HG3	2.40	0.41
5:Q:177:ARG:O	5:Q:212:ARG:HD3	2.20	0.41
1:A:900:ASP:HB3	1:A:906:HIS:HB2	2.02	0.41
2:B:360:PHE:CD2	2:B:361:LEU:HB2	2.55	0.41
2:B:891:ASP:C	2:B:893:LEU:N	2.72	0.41
2:N:292:ILE:HD13	2:N:326:ASP:HA	2.01	0.41
1:M:288:ALA:HA	1:M:291:GLU:CG	2.50	0.41
1:A:929:LEU:HD22	1:A:929:LEU:N	2.35	0.41
2:N:241:ARG:CG	2:N:253:THR:HG22	2.39	0.41
2:B:293:PRO:C	2:B:294:ASP:O	2.56	0.41
2:N:877:PRO:C	2:N:878:GLN:HG3	2.40	0.41
5:Q:50:MET:HG2	5:Q:52:ARG:HE	1.85	0.41
3:C:76:ASP:OD2	3:C:128:ASN:N	2.52	0.41
4:P:27:LEU:HD23	4:P:27:LEU:HA	1.69	0.41
1:M:1098:VAL:N	1:M:1099:PRO:HD2	2.35	0.41
4:D:148:LEU:HA	4:D:148:LEU:HD23	1.92	0.41
1:A:1239:ARG:HB3	1:A:1239:ARG:NH1	2.35	0.41
4:D:63:LEU:O	4:D:133:THR:HG21	2.19	0.41
1:M:1074:GLU:HB3	1:M:1075:PRO:CD	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:635:ARG:NH2	2:B:742:GLU:OE2	2.52	0.41
2:B:1114:LEU:HG	2:B:1202:LEU:HD11	2.02	0.41
5:Q:61:GLN:HB2	5:Q:79:TRP:HE3	1.85	0.41
5:E:157:SER:O	5:E:159:ASP:N	2.53	0.41
3:C:36:VAL:HG21	3:C:251:LEU:HD13	2.02	0.41
2:N:768:THR:O	2:N:771:SER:HB2	2.20	0.41
3:C:31:ASN:O	3:C:34:ARG:HB3	2.20	0.41
2:B:531:GLN:HG2	2:B:532:ALA:N	2.35	0.41
6:R:120:ILE:O	6:R:124:GLU:HG3	2.20	0.41
2:B:522:VAL:CG1	2:B:537:LYS:HB3	2.50	0.41
3:O:101:LEU:HD13	3:O:118:LEU:CD2	2.49	0.41
7:S:26:LEU:CD1	7:S:56:ILE:HD11	2.50	0.41
1:A:100:LYS:O	1:A:104:GLU:HG3	2.20	0.41
4:P:180:LEU:HD23	4:P:180:LEU:HA	1.53	0.41
1:A:533:LYS:HB3	1:A:533:LYS:HE2	1.90	0.41
1:A:1129:GLU:HG2	1:A:1132:LYS:NZ	2.35	0.41
3:O:69:LEU:H	3:O:69:LEU:CD1	2.28	0.41
1:A:546:VAL:HG21	1:A:572:TRP:HB2	2.01	0.41
2:B:558:LEU:O	2:B:559:SER:C	2.58	0.41
1:M:34:LYS:CG	1:M:36:ARG:NH2	2.82	0.41
1:M:66:LYS:HZ3	1:M:68:GLN:H	1.66	0.41
8:T:93:TYR:CD1	8:T:93:TYR:N	2.88	0.41
2:B:879:ARG:CD	2:B:879:ARG:H	2.31	0.41
2:B:916:THR:CB	2:B:935:ARG:HD2	2.50	0.41
11:W:65:HIS:CD2	11:W:65:HIS:C	2.92	0.41
1:A:722:LEU:CD1	1:A:722:LEU:H	2.26	0.41
1:A:901:LEU:HG	1:A:926:GLN:HE21	1.85	0.41
2:N:893:LEU:HD22	2:N:897:GLY:HA2	2.02	0.41
2:N:936:ASP:CG	2:N:937:ALA:N	2.74	0.41
2:N:459:TYR:CZ	2:N:469:GLN:HG3	2.55	0.41
1:A:1313:LEU:HB3	1:A:1338:VAL:HG21	2.02	0.41
2:B:1069:PHE:CD1	2:B:1069:PHE:N	2.78	0.41
2:N:33:VAL:O	2:N:36:ALA:HB3	2.20	0.41
1:A:310:GLY:C	1:A:312:PRO:HD2	2.40	0.41
2:B:56:ASP:HB3	2:B:57:TYR:CE1	2.54	0.41
7:G:31:LEU:CD2	7:G:48:VAL:HG21	2.50	0.41
1:A:1141:THR:HA	1:A:1205:LYS:HZ2	1.86	0.41
1:A:828:ALA:HB2	2:B:530:GLY:HA2	2.02	0.41
2:N:1107:ALA:O	2:N:1108:ARG:CB	2.67	0.41
11:W:22:ASP:O	11:W:31:VAL:HG12	2.19	0.41
1:A:332:LYS:HB2	1:A:332:LYS:HE3	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:436:ILE:HD11	1:M:491:VAL:HG11	2.01	0.41
1:A:134:ARG:HG2	1:A:138:ILE:CD1	2.49	0.41
3:O:208:GLU:O	3:O:210:GLU:N	2.53	0.41
1:M:847:ASP:N	1:M:847:ASP:OD1	2.51	0.41
2:N:371:GLU:CD	2:N:371:GLU:N	2.74	0.41
6:F:118:LEU:O	6:F:122:MET:HG3	2.19	0.41
1:A:582:ILE:HA	1:A:583:PRO:HD2	1.91	0.41
1:M:623:GLY:C	1:M:625:SER:H	2.24	0.41
8:H:93:TYR:N	8:H:93:TYR:CD1	2.89	0.41
4:P:149:THR:HG23	4:P:150:ASN:N	2.35	0.41
10:J:57:ILE:O	10:J:60:PHE:HB2	2.20	0.41
1:A:352:VAL:HG12	1:A:353:ILE:N	2.35	0.41
1:M:365:GLY:O	1:M:468:PHE:HA	2.20	0.41
2:N:745:PRO:O	2:N:747:MET:N	2.53	0.41
2:N:405:ARG:HA	2:N:631:GLY:O	2.20	0.41
1:M:715:GLU:OE1	1:M:774:ARG:HD3	2.19	0.41
2:N:323:VAL:O	2:N:323:VAL:HG12	2.20	0.41
2:B:853:SER:OG	2:B:1094:ARG:NH1	2.53	0.41
1:M:675:THR:O	1:M:675:THR:HG22	2.20	0.41
2:N:39:ARG:HH21	2:N:665:GLU:HG2	1.82	0.41
2:N:637:LEU:HD12	2:N:693:ILE:CD1	2.50	0.41
4:D:63:LEU:O	4:D:129:LEU:HD11	2.20	0.41
1:A:828:ALA:C	1:A:831:THR:HG22	2.41	0.41
9:I:8:ARG:HG3	9:I:8:ARG:H	1.67	0.41
1:M:220:THR:O	1:M:221:SER:C	2.58	0.41
1:A:230:ARG:HG3	1:A:233:TRP:CZ3	2.55	0.41
5:E:43:LYS:HG3	5:E:43:LYS:H	1.67	0.41
12:L:65:VAL:HG23	12:L:67:PHE:CE1	2.55	0.41
3:O:217:ASP:HA	3:O:218:PRO:HD3	1.91	0.41
1:A:1362:TYR:C	1:A:1362:TYR:CD1	2.92	0.41
8:T:77:ARG:CG	8:T:78:SER:H	2.33	0.41
1:M:208:LEU:HD23	1:M:208:LEU:O	2.21	0.41
13:4:18:DA:H3'	13:4:18:DA:OP1	2.20	0.41
1:M:278:THR:O	1:M:278:THR:HG22	2.19	0.41
4:D:151:PHE:N	4:D:151:PHE:CD1	2.87	0.41
9:U:70:ARG:HA	9:U:83:ASN:O	2.20	0.41
1:A:655:PHE:O	1:A:658:LEU:HB3	2.21	0.41
3:O:162:GLY:HA3	3:O:170:TRP:CE2	2.56	0.41
1:A:106:VAL:HG21	1:A:214:ILE:CD1	2.51	0.41
5:E:55:ARG:NH1	5:E:55:ARG:HG3	2.34	0.41
1:A:288:ALA:HA	1:A:291:GLU:HG3	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:344:ARG:NE	2:N:1120:GLU:HB2	2.35	0.41
7:S:122:ASN:HB2	7:S:131:GLN:CG	2.51	0.41
2:N:129:PHE:CD2	2:N:166:PHE:HA	2.49	0.41
2:N:129:PHE:CE2	2:N:166:PHE:HD1	2.38	0.41
2:N:856:PHE:CD1	2:N:856:PHE:N	2.88	0.41
2:N:945:GLU:O	2:N:946:ASN:HB3	2.20	0.41
2:N:280:ILE:HG23	2:N:281:PRO:HD2	2.01	0.41
5:Q:102:GLU:C	5:Q:104:ASN:N	2.72	0.41
2:N:227:LYS:HG3	2:N:395:GLN:OE1	2.20	0.41
2:N:245:GLU:HG2	2:N:245:GLU:O	2.20	0.41
2:N:244:LEU:O	2:N:246:LYS:N	2.53	0.41
2:B:641:GLU:HA	2:B:641:GLU:OE1	2.20	0.41
4:D:70:PHE:O	4:D:74:GLN:HG2	2.20	0.41
2:N:1207:LEU:HA	2:N:1207:LEU:HD23	1.81	0.41
3:O:174:ALA:O	3:O:175:ALA:CB	2.67	0.41
2:B:1183:LYS:CE	2:B:1183:LYS:N	2.80	0.41
1:M:956:LEU:HD21	1:M:1017:LEU:HG	2.01	0.41
1:M:960:ILE:CA	1:M:963:ILE:HG22	2.50	0.41
7:S:88:ASP:OD2	7:S:88:ASP:C	2.59	0.41
2:N:51:PHE:HB2	2:N:173:MET:CE	2.50	0.41
1:M:1063:MET:SD	1:M:1436:ILE:HB	2.60	0.41
2:N:757:PRO:HG2	2:N:984:HIS:CE1	2.55	0.41
1:M:482:PHE:C	1:M:484:GLY:H	2.24	0.41
2:B:175:ARG:HB2	2:B:200:GLY:HA3	2.02	0.41
7:G:155:SER:O	7:G:156:SER:HB3	2.20	0.41
13:4:19:DT:H2'	13:4:20:DG:H8	1.86	0.41
13:4:27:DC:H2''	13:4:28:DA:C8	2.55	0.41
1:A:623:GLY:C	1:A:625:SER:H	2.24	0.41
5:E:67:GLU:O	5:E:70:SER:HB3	2.20	0.41
1:M:5:GLN:O	2:N:1159:ARG:NH2	2.52	0.41
2:N:910:VAL:CG1	2:N:938:SER:HB3	2.50	0.41
8:H:103:LYS:HG2	8:H:104:PHE:N	2.36	0.41
10:V:57:ILE:HA	10:V:60:PHE:CD2	2.37	0.41
2:N:113:TYR:CD2	2:N:192:LEU:HD22	2.55	0.41
1:A:825:ILE:O	1:A:829:VAL:HG23	2.19	0.41
1:M:34:LYS:HZ2	1:M:57:ARG:NH2	2.18	0.41
2:B:806:THR:N	2:B:809:MET:HE3	2.35	0.41
7:S:99:PHE:CE1	7:S:143:ILE:HD12	2.55	0.41
7:S:93:SER:OG	7:S:100:GLU:HB3	2.21	0.41
2:B:911:ILE:O	2:B:911:ILE:HG22	2.21	0.41
2:N:427:ASP:HA	2:N:430:ARG:CG	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:126:SER:O	2:B:169:ARG:HA	2.20	0.41
1:A:908:LEU:CD1	1:A:983:ILE:HD11	2.46	0.41
2:B:298:LEU:CD2	2:B:298:LEU:N	2.82	0.41
13:4:15:DG:C8	13:4:16:DT:C7	3.04	0.41
1:M:1402:PHE:CZ	1:M:1403:GLU:CG	3.03	0.41
11:K:51:LEU:HD12	11:K:51:LEU:HA	1.86	0.41
1:A:224:PHE:HB3	1:A:225:ASN:H	1.78	0.41
1:M:150:THR:HA	1:M:165:GLY:O	2.19	0.41
11:K:49:GLU:HG3	11:K:94:ILE:HG13	2.02	0.41
1:M:219:PHE:O	1:M:222:LEU:HB2	2.21	0.41
2:N:308:TRP:HA	2:N:311:LEU:HD12	2.01	0.41
1:M:332:LYS:C	1:M:334:GLY:N	2.64	0.41
2:B:52:ASN:O	2:B:56:ASP:HB2	2.20	0.41
1:A:316:GLN:O	1:A:317:LYS:C	2.59	0.41
1:A:1438:THR:HB	2:B:1144:ALA:CB	2.49	0.41
9:I:14:LEU:HD22	9:I:28:GLU:C	2.40	0.41
2:B:64:CYS:HA	2:B:67:SER:HG	1.83	0.41
2:B:842:ASN:ND2	2:B:845:SER:N	2.66	0.41
1:A:218:ASP:O	1:A:219:PHE:C	2.59	0.41
6:R:79:ARG:HG3	6:R:144:GLU:HB3	2.02	0.41
5:E:83:CYS:SG	5:E:85:GLU:HB2	2.61	0.41
2:N:67:SER:HB3	2:N:92:PHE:HD1	1.86	0.41
1:A:705:LYS:HD2	1:A:708:MET:HE1	2.02	0.41
4:D:50:LEU:HD21	7:G:4:ILE:HD12	2.02	0.41
1:A:12:ARG:O	2:B:1194:ILE:HG22	2.21	0.41
2:B:769:TYR:O	2:B:772:ALA:N	2.51	0.41
2:B:54:PHE:HE1	2:B:414:ALA:HA	1.85	0.41
1:M:844:ALA:O	1:M:845:LEU:HD23	2.21	0.41
1:A:1365:TYR:C	1:A:1365:TYR:CD2	2.94	0.41
2:B:1130:PHE:HZ	2:B:1138:MET:HG2	1.84	0.41
8:H:38:LEU:HD12	8:H:124:ARG:O	2.20	0.41
8:H:4:THR:HG22	8:H:5:LEU:H	1.86	0.41
2:N:797:TYR:CE1	2:N:854:LEU:CD2	3.04	0.41
2:N:705:MET:HB3	2:N:706:GLN:H	1.68	0.41
1:M:1155:ASP:O	1:M:1190:PRO:O	2.38	0.41
10:J:57:ILE:HA	10:J:60:PHE:CD2	2.38	0.41
5:E:55:ARG:NE	5:E:113:GLN:NE2	2.68	0.41
5:E:55:ARG:HD2	5:E:84:ASP:HA	2.03	0.41
2:B:552:MET:C	2:B:554:ILE:N	2.74	0.41
2:B:114:PRO:O	2:B:115:GLN:C	2.57	0.41
1:A:1115:SER:OG	1:A:1116:LEU:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:6:TYR:CD1	1:A:7:SER:N	2.88	0.41
13:1:12:DG:H1'	13:1:13:DT:O5'	2.21	0.41
1:A:929:LEU:N	1:A:929:LEU:CD2	2.84	0.41
2:N:886:LYS:HD2	2:N:887:HIS:NE2	2.36	0.41
2:N:898:LEU:HD13	2:N:952:VAL:CG1	2.50	0.41
1:A:667:GLY:CA	1:A:670:ILE:HD11	2.40	0.41
7:S:34:VAL:HG13	7:S:45:ILE:HG21	2.02	0.41
2:N:1096:ARG:CG	2:N:1097:HIS:N	2.84	0.41
1:M:102:VAL:CG1	1:M:211:PHE:CE1	3.03	0.41
2:B:846:ILE:HG23	2:B:974:PRO:CG	2.42	0.41
4:D:156:ASP:O	4:D:158:GLU:N	2.53	0.41
1:M:740:LEU:HD12	1:M:740:LEU:C	2.40	0.41
2:N:653:VAL:HG22	2:N:689:LEU:HB3	1.99	0.41
1:A:172:PRO:HD3	1:A:185:TRP:CD1	2.56	0.41
3:O:183:TRP:O	3:O:185:LYS:HG3	2.20	0.41
6:F:69:LEU:HB2	6:F:72:LYS:HD2	2.01	0.41
1:A:896:ARG:HB3	1:A:897:TYR:CD1	2.56	0.41
5:E:11:ARG:C	5:E:13:TRP:N	2.74	0.41
4:P:173:HIS:CE1	4:P:175:PHE:HB2	2.55	0.41
6:R:136:ARG:O	6:R:143:PHE:HA	2.21	0.41
4:D:52:LEU:CD1	4:D:182:SER:HB2	2.50	0.41
2:N:186:GLU:CG	10:V:62:ARG:NH2	2.84	0.41
2:B:436:VAL:HG12	2:B:436:VAL:O	2.20	0.41
5:E:213:ILE:HG12	5:E:214:CYS:N	2.35	0.41
2:N:259:TYR:CD1	2:N:259:TYR:N	2.89	0.41
1:A:1206:ASP:O	1:A:1274:ARG:CZ	2.68	0.41
2:B:1169:MET:HE2	2:B:1204:PHE:HB2	2.02	0.41
3:C:209:TYR:N	3:C:209:TYR:CD1	2.88	0.41
3:C:254:LYS:HE2	11:K:42:LEU:HD13	2.02	0.41
9:I:73:ARG:NH1	9:I:112:SER:HB3	2.35	0.41
1:A:55:ASP:OD1	1:A:57:ARG:CA	2.69	0.41
1:A:562:THR:HA	1:A:563:PRO:HD3	1.89	0.41
2:N:639:ILE:HG22	2:N:641:GLU:HG2	2.03	0.41
2:N:642:ASP:N	2:N:649:LYS:HG3	2.35	0.41
2:B:31:TRP:CZ2	2:B:807:ARG:HB2	2.55	0.41
2:B:884:ARG:O	2:B:936:ASP:CB	2.69	0.41
1:A:1311:VAL:HG11	1:A:1334:ASP:OD2	2.21	0.41
2:N:999:MET:HE2	2:N:1000:PRO:HD2	2.02	0.41
2:B:791:THR:O	2:B:792:MET:HB2	2.20	0.41
1:M:317:LYS:O	1:M:318:SER:HB3	2.18	0.41
1:M:1220:PHE:CD1	1:M:1224:LEU:HD23	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:401:GLY:H	1:M:435:HIS:HD2	1.68	0.41
1:M:244:PRO:HB2	1:M:245:PRO:CD	2.41	0.41
2:N:762:ASN:OD1	2:N:1022:THR:HA	2.20	0.41
2:N:203:PHE:HB3	2:N:205:ILE:HD11	2.03	0.41
7:G:14:HIS:CD2	7:G:16:SER:HB3	2.56	0.41
2:N:311:LEU:O	2:N:312:GLU:C	2.57	0.41
1:A:867:ILE:HG12	1:A:1000:LEU:HD11	2.02	0.41
13:1:18:DA:OP1	13:1:18:DA:H3'	2.20	0.41
1:A:1081:LEU:HD11	1:A:1098:VAL:N	2.31	0.41
4:D:12:ARG:CG	4:D:12:ARG:HH11	2.34	0.41
4:D:7:THR:HB	7:G:42:PHE:CE2	2.55	0.41
3:O:186:LEU:N	3:O:186:LEU:CD1	2.83	0.41
2:N:234:ILE:HG12	2:N:257:LYS:HG2	2.03	0.41
1:M:780:VAL:O	1:M:782:ARG:HG2	2.20	0.41
2:B:120:ARG:HH11	12:L:54:ARG:HH11	1.64	0.41
2:B:308:TRP:CZ3	9:I:45:ARG:HG2	2.54	0.41
3:O:215:GLU:O	3:O:217:ASP:N	2.53	0.41
1:A:738:LYS:HG3	1:A:740:LEU:HG	2.01	0.41
1:A:765:VAL:HB	1:A:800:VAL:HG12	2.02	0.41
3:C:24:ASN:O	3:C:24:ASN:CG	2.59	0.41
1:M:432:VAL:O	1:M:432:VAL:HG12	2.21	0.41
5:E:72:PHE:CD1	5:E:72:PHE:N	2.89	0.41
2:N:238:ALA:HB3	2:N:256:VAL:HB	2.02	0.41
2:B:508:LEU:HB3	14:2:1:DA:O3'	2.21	0.41
1:A:1155:ASP:O	1:A:1190:PRO:O	2.38	0.41
1:M:591:PHE:HA	1:M:595:THR:CG2	2.39	0.41
8:T:95:TYR:CD2	8:T:95:TYR:C	2.94	0.41
2:B:188:ASP:O	2:B:192:LEU:HD12	2.21	0.41
1:A:108:MET:O	1:A:109:HIS:HB3	2.21	0.41
1:A:108:MET:HB3	1:A:210:ILE:CD1	2.51	0.41
2:N:492:LEU:HB2	2:N:751:VAL:HG11	2.03	0.41
1:A:709:THR:HG22	1:A:711:ARG:H	1.85	0.41
2:B:280:ILE:HD11	2:B:334:ILE:HG12	2.03	0.41
2:B:281:PRO:O	2:B:283:VAL:N	2.54	0.41
2:B:847:ASP:O	3:C:65:HIS:HE1	2.03	0.41
11:W:65:HIS:NE2	11:W:67:PHE:CG	2.87	0.41
2:B:859:TYR:CD1	2:B:859:TYR:N	2.89	0.41
1:A:722:LEU:N	1:A:722:LEU:HD12	2.25	0.41
2:N:941:LEU:CD2	2:N:946:ASN:HA	2.50	0.41
1:M:1208:THR:HG22	1:M:1210:GLY:N	2.34	0.41
5:Q:63:ASN:HB3	5:Q:64:PRO:CD	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:14:HIS:HD2	7:G:16:SER:HB3	1.85	0.41
1:M:741:ASN:C	1:M:741:ASN:ND2	2.71	0.41
2:B:770:GLN:HB2	2:B:985:GLY:H	1.85	0.41
2:N:52:ASN:O	2:N:56:ASP:HB2	2.21	0.41
5:E:13:TRP:CE3	5:E:39:LEU:HD13	2.55	0.41
1:A:1198:ASP:O	1:A:1202:MET:HG2	2.20	0.41
8:H:116:TYR:HE2	8:H:140:ALA:CB	2.33	0.41
4:D:32:GLU:O	4:D:33:PHE:CG	2.74	0.41
1:A:416:ARG:NH1	1:A:417:TYR:CE1	2.89	0.41
11:K:21:ILE:HG12	11:K:33:ILE:HG23	2.02	0.41
1:A:130:ASP:O	1:A:131:SER:C	2.59	0.41
2:B:887:HIS:CD2	2:B:887:HIS:H	2.37	0.41
2:N:460:ALA:HB1	2:N:466:TRP:CE3	2.56	0.41
7:S:59:GLY:HA3	7:S:70:PHE:CD2	2.56	0.41
2:N:552:MET:C	2:N:554:ILE:N	2.74	0.41
2:B:571:PRO:O	2:B:574:SER:O	2.38	0.41
7:S:132:SER:HB3	7:S:135:ASP:HB2	2.03	0.41
3:C:196:ASP:OD1	3:C:198:ALA:N	2.54	0.41
2:B:1170:THR:O	2:B:1171:VAL:C	2.59	0.41
4:P:150:ASN:HB2	4:P:151:PHE:CE1	2.56	0.41
4:P:155:ARG:CZ	4:P:155:ARG:HB2	2.50	0.41
4:P:155:ARG:HH11	4:P:155:ARG:HB3	1.83	0.41
1:A:541:ILE:HG21	1:A:549:MET:HE3	2.03	0.41
2:N:1102:LYS:O	2:N:1103:ILE:C	2.58	0.41
1:M:1161:THR:HG22	1:M:1163:ILE:HG13	2.03	0.41
1:M:40:THR:HG21	1:M:259:GLU:OE2	2.21	0.41
12:L:27:LEU:HD13	12:L:37:LYS:CG	2.51	0.41
2:B:579:ARG:CG	2:B:579:ARG:NH1	2.82	0.41
1:M:446:ARG:HD2	1:M:480:ALA:HB2	2.03	0.41
12:X:37:LYS:HE3	12:X:37:LYS:HB2	1.81	0.41
12:L:48:CYS:HB3	12:L:51:CYS:O	2.20	0.41
9:U:6:PHE:CD2	9:U:12:ASN:O	2.73	0.41
2:B:360:PHE:HD2	2:B:374:LYS:HD3	1.85	0.41
2:B:222:ILE:O	2:B:240:ILE:HA	2.21	0.41
1:M:562:THR:HA	1:M:563:PRO:HD3	1.89	0.41
2:B:1085:ILE:HD12	2:B:1085:ILE:N	2.36	0.41
10:J:6:ARG:HA	10:J:12:LYS:O	2.21	0.41
7:S:111:THR:HG22	7:S:114:LEU:CB	2.47	0.41
7:S:111:THR:O	7:S:112:LYS:C	2.59	0.41
1:M:1208:THR:O	1:M:1209:MET:C	2.58	0.41
2:B:128:LEU:HD12	2:B:128:LEU:HA	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1034:VAL:O	2:N:1037:LEU:N	2.53	0.41
2:N:886:LYS:HB2	2:N:890:TYR:OH	2.21	0.41
3:O:75:MET:O	3:O:246:ARG:NH2	2.53	0.41
7:S:7:LEU:HD13	7:S:45:ILE:HD11	2.03	0.41
1:A:1158:PRO:C	1:A:1159:ARG:HG3	2.41	0.41
2:B:466:TRP:O	2:B:468:GLU:N	2.53	0.41
1:M:472:LEU:CD1	2:N:835:GLN:NE2	2.82	0.41
1:M:532:ARG:NH2	1:M:745:GLN:HG2	2.36	0.41
6:F:109:VAL:CG1	6:F:110:ASP:H	2.28	0.41
2:N:654:ARG:NH1	2:N:654:ARG:HG3	2.31	0.41
2:N:637:LEU:HD21	2:N:742:GLU:HA	2.03	0.41
2:B:241:ARG:HG2	2:B:253:THR:HG21	2.01	0.41
1:M:445:ASN:HB3	1:M:455:MET:HE2	2.02	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:CB	2.50	0.41
1:A:1094:VAL:HG13	1:A:1113:THR:HB	2.03	0.41
7:G:117:GLN:NE2	7:S:153:GLN:HG3	2.34	0.41
2:B:63:ILE:HD12	2:B:63:ILE:HA	1.76	0.41
2:N:1106:ARG:HH12	2:N:1110:PRO:HG2	1.86	0.41
4:D:52:LEU:H	4:D:182:SER:HB3	1.86	0.41
1:M:492:PRO:HB3	1:M:497:THR:HG22	2.02	0.41
2:N:990:ILE:HG22	2:N:991:GLY:N	2.35	0.41
2:N:449:ASN:O	2:N:451:LYS:N	2.53	0.41
2:N:610:ASN:HA	2:N:611:PRO:HD3	1.97	0.41
1:A:705:LYS:HB2	1:A:708:MET:CE	2.50	0.41
5:E:65:THR:O	5:E:69:ILE:CD1	2.68	0.41
1:A:145:LYS:HE3	1:A:145:LYS:CA	2.51	0.41
8:T:145:ARG:O	8:T:146:ARG:CB	2.69	0.41
1:M:1212:VAL:O	1:M:1215:ARG:HB2	2.21	0.41
3:C:34:ARG:O	3:C:38:ILE:HG13	2.21	0.41
11:W:40:HIS:O	11:W:41:THR:C	2.59	0.41
9:U:10:CYS:O	9:U:11:ASN:C	2.59	0.41
2:B:1110:PRO:HB2	2:B:1119:VAL:HG11	2.03	0.41
8:H:105:GLU:O	8:H:112:ILE:HD12	2.21	0.41
2:N:101:MET:HB3	2:N:109:THR:HG22	2.03	0.41
1:M:355:GLY:N	1:M:482:PHE:CZ	2.89	0.41
7:G:87:VAL:CG2	7:G:103:VAL:HG21	2.51	0.41
4:D:166:LEU:HD23	4:D:214:LEU:HD22	2.03	0.41
2:B:796:LEU:HA	2:B:796:LEU:HD12	1.88	0.41
11:K:56:VAL:HA	11:K:77:THR:HG22	2.02	0.41
2:N:1104:HIS:ND1	2:N:1105:ALA:N	2.68	0.41
1:A:696:GLU:O	1:A:696:GLU:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:228:LYS:HD3	2:N:228:LYS:HA	1.85	0.41
1:M:1395:GLY:HA3	1:M:1419:ASP:OD2	2.21	0.41
1:M:553:VAL:HA	1:M:554:PRO:HD2	1.87	0.41
9:U:22:ASN:O	9:U:23:ASN:HB2	2.21	0.41
2:B:1159:ARG:O	2:B:1159:ARG:HD2	2.21	0.41
11:K:13:GLY:O	11:K:14:GLU:C	2.59	0.41
8:H:83:GLN:C	8:H:85:GLY:H	2.23	0.41
1:A:68:GLN:O	1:A:70:CYS:N	2.51	0.41
4:P:119:ARG:CG	4:P:221:TYR:CZ	3.03	0.41
1:M:34:LYS:HB2	1:M:36:ARG:NH2	2.36	0.41
2:N:558:LEU:O	2:N:559:SER:C	2.59	0.41
2:N:641:GLU:C	2:N:643:ASP:H	2.24	0.41
8:T:26:ILE:O	8:T:27:GLU:HG3	2.21	0.41
5:E:90:VAL:HG23	5:E:120:ALA:HA	2.02	0.41
12:X:27:LEU:HD13	12:X:37:LYS:HG2	2.03	0.41
4:P:118:THR:HG21	4:P:121:LYS:HD2	2.03	0.41
1:M:826:ASP:OD1	1:M:827:THR:N	2.54	0.41
2:B:377:PHE:O	2:B:380:TYR:N	2.53	0.41
2:B:792:MET:CE	2:B:857:ARG:NH2	2.77	0.41
2:N:276:ILE:HD11	2:N:334:ILE:HG23	2.03	0.41
5:Q:90:VAL:HG23	5:Q:120:ALA:HA	2.02	0.41
2:N:886:LYS:HB2	2:N:890:TYR:CE1	2.56	0.41
5:Q:69:ILE:N	5:Q:69:ILE:CD1	2.82	0.41
2:B:469:GLN:HB3	2:B:470:LYS:H	1.53	0.41
1:M:95:PHE:O	1:M:98:LYS:N	2.54	0.41
2:N:658:ILE:HG22	2:N:659:ALA:N	2.35	0.41
8:H:129:TYR:CD1	8:H:130:ARG:CD	3.03	0.41
4:D:12:ARG:NH1	4:D:14:ARG:HG2	2.36	0.41
7:G:1:MET:SD	7:G:79:PHE:HD1	2.42	0.41
7:S:14:HIS:CE1	7:S:15:PRO:HD2	2.55	0.41
6:R:79:ARG:NH2	6:R:150:GLU:OE1	2.47	0.41
3:C:11:ARG:HE	3:C:21:ILE:HD11	1.86	0.41
1:M:84:ILE:CD1	1:M:270:LEU:HD13	2.51	0.41
8:T:51:ALA:O	8:T:52:GLN:CB	2.69	0.41
4:D:25:ALA:HB1	4:D:196:PRO:HG3	2.03	0.41
1:A:1017:LEU:HB2	5:E:206:GLY:N	2.36	0.41
9:I:55:THR:HG22	9:I:86:PHE:HZ	1.86	0.41
3:C:217:ASP:HA	3:C:218:PRO:HD3	1.92	0.41
1:A:606:LEU:HG	1:A:613:ILE:HD12	2.02	0.41
3:O:112:ASN:CB	3:O:114:TYR:CE1	3.03	0.41
1:M:920:LEU:HD23	1:M:920:LEU:C	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1109:GLY:O	2:B:1110:PRO:C	2.59	0.41
1:A:1195:LEU:HD11	1:A:1267:MET:CE	2.51	0.41
2:N:1169:MET:HE1	2:N:1204:PHE:HB2	2.03	0.41
2:B:992:ILE:HD11	11:K:66:PRO:HB2	2.01	0.41
13:1:27:DC:H2"	13:1:28:DA:C8	2.56	0.41
11:W:7:PHE:C	11:W:7:PHE:CD1	2.95	0.41
1:A:550:LEU:HD23	1:A:550:LEU:HA	1.95	0.41
1:M:113:LEU:HD23	1:M:113:LEU:HA	1.95	0.41
12:X:53:HIS:O	12:X:55:ILE:HD13	2.21	0.40
1:A:55:ASP:OD1	1:A:57:ARG:HA	2.21	0.40
1:M:565:ILE:O	1:M:570:PRO:HA	2.21	0.40
12:L:38:LEU:CG	12:L:39:SER:H	2.27	0.40
1:M:1383:SER:O	1:M:1385:THR:N	2.54	0.40
1:A:1279:ILE:HG23	1:A:1308:THR:OG1	2.21	0.40
4:P:14:ARG:NH1	4:P:16:LYS:HG2	2.35	0.40
1:M:828:ALA:C	1:M:831:THR:HG22	2.40	0.40
2:B:1160:VAL:CG1	2:B:1161:HIS:N	2.84	0.40
5:E:3:GLN:NE2	5:E:52:ARG:HH22	2.18	0.40
2:B:167:ILE:N	2:B:167:ILE:HD12	2.35	0.40
2:N:1064:TYR:O	2:N:1065:GLN:C	2.59	0.40
5:E:190:LEU:C	5:E:191:LYS:HG2	2.42	0.40
13:4:15:DG:C8	13:4:16:DT:H73	2.56	0.40
2:N:766:ARG:HD3	2:N:766:ARG:HA	1.80	0.40
9:U:80:SER:HB2	9:U:103:CYS:SG	2.61	0.40
3:C:73:GLN:HB3	3:C:131:HIS:H	1.85	0.40
1:M:535:THR:HG22	1:M:616:VAL:HA	2.00	0.40
1:M:225:ASN:HD22	1:M:227:VAL:N	2.19	0.40
1:M:1112:LYS:O	1:M:1114:PRO:CD	2.66	0.40
2:N:593:PRO:O	2:N:595:ARG:N	2.53	0.40
1:M:341:MET:CE	2:N:1135:ARG:NH1	2.84	0.40
11:W:6:ARG:O	11:W:9:LEU:HG	2.21	0.40
5:Q:13:TRP:O	5:Q:16:PHE:HB3	2.21	0.40
1:M:1127:ASP:CG	1:M:1130:GLN:CB	2.89	0.40
4:P:8:PHE:CD1	4:P:38:ILE:O	2.74	0.40
2:B:652:LYS:HD2	2:B:688:GLY:O	2.22	0.40
1:A:335:ARG:NH1	2:B:1206:GLU:OE1	2.55	0.40
3:O:31:ASN:O	3:O:34:ARG:HB3	2.22	0.40
1:M:130:ASP:O	1:M:131:SER:C	2.59	0.40
5:Q:136:ASN:OD1	5:Q:138:ALA:N	2.54	0.40
9:I:58:VAL:CG1	9:I:62:ILE:HG21	2.51	0.40
1:A:673:GLY:O	1:A:676:MET:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:460:ALA:HB1	2:N:466:TRP:CZ3	2.55	0.40
1:A:1345:ARG:HD2	1:A:1373:ASP:OD1	2.21	0.40
2:N:570:VAL:CG2	2:N:573:GLN:HB3	2.51	0.40
9:U:77:LYS:C	9:U:79:HIS:H	2.24	0.40
1:A:878:ILE:CG2	1:A:955:PRO:HB2	2.51	0.40
5:E:89:GLY:C	5:E:91:LYS:N	2.74	0.40
7:G:132:SER:HB3	7:G:135:ASP:HB2	2.03	0.40
2:B:910:VAL:CG1	2:B:938:SER:HB3	2.51	0.40
4:P:41:GLN:N	4:P:41:GLN:NE2	2.69	0.40
1:A:179:LEU:HD23	1:A:179:LEU:N	2.36	0.40
8:H:35:GLN:HB3	8:H:111:LEU:HD21	2.03	0.40
9:U:73:ARG:NH1	9:U:101:PHE:CZ	2.89	0.40
1:A:598:LEU:HA	8:H:122:LEU:HD13	2.03	0.40
4:P:151:PHE:HD1	4:P:151:PHE:N	2.04	0.40
2:B:102:VAL:HG23	2:B:112:LEU:CB	2.25	0.40
12:X:38:LEU:CG	12:X:39:SER:H	2.29	0.40
4:P:121:LYS:HA	4:P:124:GLU:OE2	2.20	0.40
7:S:102:GLN:HG3	7:S:106:MET:O	2.21	0.40
2:B:1064:TYR:O	2:B:1065:GLN:C	2.59	0.40
1:M:871:ASP:OD1	1:M:1366:ARG:NH2	2.54	0.40
1:M:1279:ILE:HG23	1:M:1308:THR:OG1	2.20	0.40
3:O:239:PRO:O	3:O:242:GLN:HB2	2.21	0.40
2:N:1200:ALA:O	2:N:1201:LYS:C	2.60	0.40
1:M:1402:PHE:CE2	1:M:1403:GLU:CG	3.04	0.40
1:M:1323:ASP:C	1:M:1325:THR:H	2.24	0.40
2:N:617:ARG:HA	2:N:624:LEU:HD12	2.03	0.40
1:M:332:LYS:O	1:M:334:GLY:N	2.54	0.40
5:Q:11:ARG:C	5:Q:13:TRP:N	2.75	0.40
1:A:1081:LEU:CD1	1:A:1097:GLY:HA3	2.51	0.40
1:A:320:ARG:HA	1:A:321:PRO:HD3	1.91	0.40
1:M:963:ILE:HD11	1:M:1049:ILE:N	2.36	0.40
4:D:40:HIS:C	4:D:42:GLY:H	2.24	0.40
1:M:320:ARG:HE	1:M:323:LYS:NZ	2.20	0.40
9:U:58:VAL:O	9:U:58:VAL:HG12	2.21	0.40
5:E:207:ARG:HB3	5:E:207:ARG:NH1	2.31	0.40
1:M:369:SER:HB3	11:W:2:ASN:HD21	1.86	0.40
2:N:466:TRP:O	2:N:468:GLU:N	2.53	0.40
3:C:215:GLU:O	3:C:217:ASP:N	2.54	0.40
2:B:59:LEU:HG	2:B:95:ILE:HD13	2.03	0.40
9:I:88:SER:HB3	9:I:95:THR:HG21	2.02	0.40
1:A:996:ASN:HA	1:A:998:LEU:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1264:GLU:OE2	9:I:46:HIS:HD2	2.05	0.40
2:N:782:LEU:HB3	2:N:784:ASN:OD1	2.21	0.40
1:M:1157:ASP:O	1:M:1159:ARG:N	2.49	0.40
1:M:1005:GLU:O	1:M:1009:ASN:ND2	2.54	0.40
1:A:650:GLN:O	1:A:654:ASN:HB2	2.21	0.40
1:A:55:ASP:OD2	1:A:55:ASP:O	2.39	0.40
4:P:56:ARG:HB2	4:P:148:LEU:HD22	2.03	0.40
2:B:780:VAL:HG21	10:J:56:LEU:CD1	2.47	0.40
2:B:1045:SER:O	2:B:1046:PRO:O	2.39	0.40
3:C:111:THR:O	3:C:147:LEU:HD23	2.20	0.40
7:S:90:THR:CG2	7:S:91:VAL:N	2.84	0.40
2:B:847:ASP:HB3	3:C:167:HIS:NE2	2.37	0.40
2:B:996:ARG:HH12	3:C:174:ALA:CA	2.24	0.40
2:B:945:GLU:O	2:B:946:ASN:HB3	2.21	0.40
1:M:316:GLN:HG2	1:M:317:LYS:H	1.85	0.40
5:Q:90:VAL:HB	5:Q:117:THR:HG21	2.04	0.40
2:B:129:PHE:CE2	2:B:166:PHE:CD1	3.10	0.40
1:A:850:VAL:HG21	1:A:1058:VAL:HG11	2.04	0.40
2:N:222:ILE:N	2:N:240:ILE:CD1	2.85	0.40
3:O:133:ILE:CD1	3:O:236:GLY:C	2.89	0.40
3:C:128:ASN:O	3:C:129:ILE:HG13	2.21	0.40
2:N:624:LEU:HA	2:N:624:LEU:HD12	1.92	0.40
1:A:698:GLN:NE2	9:I:99:LEU:HD11	2.37	0.40
3:O:34:ARG:O	3:O:38:ILE:HG13	2.22	0.40
2:B:211:VAL:HG21	2:B:483:LEU:HD13	2.04	0.40
1:M:967:ALA:HB2	1:M:1045:VAL:HG22	2.03	0.40
1:A:1410:PHE:HD2	2:B:1212:ILE:CD1	2.33	0.40
1:A:196:GLU:HG2	1:A:197:PRO:CD	2.52	0.40
1:A:347:PHE:H	2:B:1107:ALA:HA	1.87	0.40
2:B:838:SER:HA	2:B:989:THR:O	2.21	0.40
1:M:843:LYS:HD3	1:M:843:LYS:HA	1.76	0.40
1:A:752:LYS:HD3	1:A:752:LYS:HA	1.93	0.40
1:A:1143:LEU:O	1:A:1146:VAL:HG22	2.21	0.40
1:M:1350:LYS:O	1:M:1354:ASN:ND2	2.54	0.40
2:B:722:ASP:HB3	2:B:723:VAL:H	1.58	0.40
8:H:26:ILE:HD11	8:H:49:VAL:CG1	2.51	0.40
12:X:55:ILE:O	12:X:56:LEU:HB2	2.21	0.40
10:J:56:LEU:O	10:J:57:ILE:C	2.60	0.40
1:M:566:ILE:O	1:M:567:LYS:O	2.40	0.40
8:T:27:GLU:CG	8:T:39:THR:HG23	2.51	0.40
1:A:444:PHE:HB2	1:A:458:HIS:HD2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:102:GLU:C	5:E:104:ASN:N	2.73	0.40
8:T:83:GLN:C	8:T:85:GLY:H	2.24	0.40
2:B:189:LEU:HD13	2:B:196:PRO:HA	2.03	0.40
1:M:500:GLU:O	1:M:504:LEU:HB2	2.21	0.40
2:B:1158:PHE:CE2	2:B:1160:VAL:HG22	2.56	0.40
2:B:847:ASP:OD2	3:C:167:HIS:HD2	2.03	0.40
2:N:905:VAL:HG23	2:N:941:LEU:HD22	2.04	0.40
2:N:323:VAL:O	2:N:324:ILE:HG13	2.21	0.40
2:N:364:ILE:HG22	2:N:365:THR:N	2.37	0.40
1:M:254:GLU:HB3	1:M:255:SER:H	1.49	0.40
2:N:979:LYS:HG2	2:N:1095:LEU:CD1	2.51	0.40
1:M:1291:VAL:CG2	1:M:1292:PRO:CD	2.99	0.40
2:N:39:ARG:NH2	2:N:665:GLU:OE1	2.48	0.40
1:M:870:GLU:HB2	5:Q:204:THR:HG21	2.03	0.40
2:B:345:LYS:HE2	2:B:349:ILE:HD11	2.01	0.40
6:F:69:LEU:HB3	6:F:71:GLU:HG3	2.03	0.40
6:R:109:VAL:HG12	6:R:110:ASP:H	1.83	0.40
1:M:1222:ASN:O	1:M:1223:ASP:HB3	2.21	0.40
2:B:654:ARG:O	2:B:657:HIS:HB2	2.22	0.40
1:M:347:PHE:H	2:N:1107:ALA:HA	1.86	0.40
4:D:54:GLU:OE1	4:D:164:ILE:HD11	2.21	0.40
1:A:675:THR:O	1:A:675:THR:HG22	2.22	0.40
2:B:211:VAL:CG1	2:B:495:LEU:HD23	2.51	0.40
3:O:245:VAL:HG13	11:W:102:LYS:HG3	2.04	0.40
2:B:90:ILE:HD12	2:B:432:MET:CE	2.51	0.40
2:B:813:LYS:HD2	2:B:816:GLU:OE1	2.21	0.40
5:E:127:ILE:N	5:E:128:PRO:CD	2.84	0.40
2:N:269:ILE:CG2	2:N:282:ILE:HD13	2.52	0.40
1:A:1291:VAL:HG22	1:A:1292:PRO:CD	2.51	0.40
1:A:349:ALA:CB	1:A:374:LEU:HD11	2.52	0.40
1:A:436:ILE:HD11	1:A:491:VAL:HG11	2.03	0.40
2:N:40:GLU:OE1	2:N:681:TRP:HB3	2.22	0.40
2:N:984:HIS:NE2	2:N:1025:HIS:HA	2.37	0.40
1:A:996:ASN:HA	1:A:998:LEU:CD1	2.52	0.40
2:B:204:ILE:HG22	2:B:204:ILE:O	2.21	0.40
1:M:1153:TYR:HB2	1:M:1192:LEU:HD23	2.03	0.40
8:H:93:TYR:HB3	8:H:144:ILE:O	2.20	0.40
1:A:33:ALA:CA	1:A:57:ARG:HH12	2.23	0.40
2:N:826:ALA:HB2	2:N:1087:PHE:CE2	2.57	0.40
1:M:831:THR:HG23	1:M:832:ALA:N	2.37	0.40
1:A:905:ASP:O	1:A:906:HIS:ND1	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:273:LEU:HA	2:B:274:PRO:HD2	1.93	0.40
2:B:277:LYS:HG2	2:B:336:ARG:CB	2.44	0.40
1:A:783:THR:HG21	1:A:796:SER:O	2.20	0.40
2:N:911:ILE:HG21	2:N:966:VAL:HG11	2.01	0.40
6:F:81:THR:HG23	6:F:144:GLU:OE2	2.22	0.40
2:N:377:PHE:O	2:N:380:TYR:N	2.54	0.40
5:Q:48:ASP:OD1	5:Q:52:ARG:HB2	2.22	0.40
2:N:810:GLU:CA	2:N:815:ARG:HH22	2.35	0.40
13:1:15:DG:C8	13:1:16:DT:C7	3.05	0.40
2:N:98:THR:O	2:N:126:SER:CB	2.69	0.40
4:D:156:ASP:C	4:D:158:GLU:N	2.74	0.40
11:W:47:ARG:HB3	11:W:47:ARG:NH1	2.28	0.40
1:A:1339:LEU:HD13	5:E:147:HIS:CG	2.56	0.40
2:N:654:ARG:O	2:N:656:GLY:N	2.55	0.40
6:F:148:VAL:O	6:F:149:GLU:C	2.60	0.40
2:B:811:TYR:N	2:B:811:TYR:CD1	2.89	0.40
1:M:896:ARG:HB3	1:M:897:TYR:CD1	2.57	0.40
1:M:1241:ARG:O	1:M:1242:VAL:HG23	2.22	0.40
3:C:46:ILE:HD12	3:C:67:LEU:O	2.22	0.40
1:A:1202:MET:CE	1:A:1212:VAL:HG21	2.52	0.40
3:O:184:ASN:OD1	3:O:187:LYS:CA	2.69	0.40
1:M:1048:ASN:N	1:M:1048:ASN:ND2	2.70	0.40
5:E:63:ASN:HB3	5:E:64:PRO:CD	2.52	0.40
1:M:705:LYS:HB2	1:M:708:MET:HE2	2.03	0.40
2:N:212:LEU:HD21	2:N:466:TRP:CH2	2.56	0.40
1:M:1436:ILE:HG21	1:M:1436:ILE:HD13	1.91	0.40
2:B:1110:PRO:C	2:B:1119:VAL:HG13	2.42	0.40
1:A:1349:TYR:HA	1:A:1372:VAL:HG21	2.02	0.40
2:B:601:ARG:HD3	2:B:605:ARG:NH2	2.36	0.40
3:C:252:GLN:CG	11:K:95:ILE:HG23	2.51	0.40
1:A:1265:ASN:C	1:A:1267:MET:N	2.73	0.40
8:T:36:CYS:HA	8:T:126:GLU:O	2.22	0.40
2:N:629:ASP:HB3	2:N:632:ARG:CD	2.51	0.40
11:W:37:LYS:O	11:W:38:GLU:HG2	2.21	0.40
2:B:976:ILE:O	2:B:990:ILE:HB	2.21	0.40
1:M:752:LYS:HD3	1:M:752:LYS:HA	1.86	0.40
2:N:1221:SER:O	2:N:1223:ASP:N	2.55	0.40
1:A:367:PRO:HB3	1:A:465:TYR:O	2.22	0.40
2:B:908:GLU:O	2:B:909:ASP:C	2.59	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1406/1733 (81%)	1075 (76%)	225 (16%)	106 (8%)	1	9
1	M	1406/1733 (81%)	1073 (76%)	228 (16%)	105 (8%)	1	9
2	B	1082/1224 (88%)	800 (74%)	186 (17%)	96 (9%)	1	5
2	N	1082/1224 (88%)	798 (74%)	186 (17%)	98 (9%)	1	5
3	C	264/318 (83%)	202 (76%)	41 (16%)	21 (8%)	1	7
3	O	264/318 (83%)	203 (77%)	42 (16%)	19 (7%)	1	10
4	D	174/221 (79%)	120 (69%)	37 (21%)	17 (10%)	1	4
4	P	174/221 (79%)	122 (70%)	34 (20%)	18 (10%)	1	4
5	E	212/215 (99%)	155 (73%)	41 (19%)	16 (8%)	1	9
5	Q	212/215 (99%)	159 (75%)	37 (18%)	16 (8%)	1	9
6	F	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	7	43
6	R	85/155 (55%)	72 (85%)	11 (13%)	2 (2%)	7	43
7	G	169/171 (99%)	141 (83%)	23 (14%)	5 (3%)	5	35
7	S	169/171 (99%)	139 (82%)	23 (14%)	7 (4%)	3	27
8	H	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
8	T	130/146 (89%)	85 (65%)	25 (19%)	20 (15%)	0	1
9	I	117/122 (96%)	77 (66%)	28 (24%)	12 (10%)	1	4
9	U	117/122 (96%)	78 (67%)	28 (24%)	11 (9%)	1	5
10	J	63/70 (90%)	43 (68%)	9 (14%)	11 (18%)	0	0
10	V	63/70 (90%)	42 (67%)	10 (16%)	11 (18%)	0	0
11	K	112/120 (93%)	89 (80%)	20 (18%)	3 (3%)	6	39
11	W	112/120 (93%)	89 (80%)	19 (17%)	4 (4%)	4	30
12	L	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
12	X	44/70 (63%)	19 (43%)	15 (34%)	10 (23%)	0	0
All	All	7716/9130 (84%)	5757 (75%)	1319 (17%)	640 (8%)	1	7

All (640) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	4	GLN
1	A	43	GLU
1	A	57	ARG
1	A	62	ASP
1	A	63	ARG
1	A	67	CYS
1	A	70	CYS
1	A	130	ASP
1	A	250	ILE
1	A	255	SER
1	A	257	ARG
1	A	286	HIS
1	A	311	GLN
1	A	318	SER
1	A	332	LYS
1	A	399	HIS
1	A	410	GLY
1	A	423	ASP
1	A	517	ASN
1	A	567	LYS
1	A	597	LEU
1	A	1112	LYS
1	A	1114	PRO
1	A	1120	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1223	ASP
1	A	1233	ASP
1	A	1242	VAL
1	A	1255	GLU
1	A	1281	ARG
1	A	1403	GLU
1	A	1438	THR
2	B	21	GLU
2	B	67	SER
2	B	68	THR
2	B	108	VAL
2	B	124	TYR
2	B	186	GLU
2	B	291	ILE
2	B	295	GLY
2	B	334	ILE

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Mol	Chain	Res	Type
2	B	365	THR
2	B	367	LEU
2	B	391	ASP
2	B	435	THR
2	B	468	GLU
2	B	509	ALA
2	B	643	ASP
2	B	708	GLU
2	B	709	ASP
2	B	728	ARG
2	B	731	VAL
2	B	734	HIS
2	B	907	GLY
2	B	958	GLN
2	B	1046	PRO
2	B	1156	ASP
2	B	1175	LEU
3	C	110	THR
3	C	141	GLY
3	C	184	ASN
3	C	209	TYR
3	C	215	GLU
4	D	5	THR
4	D	8	PHE
4	D	17	LYS
4	D	19	GLU
4	D	52	LEU
4	D	218	GLU
5	E	45	LYS
5	E	115	ASN
5	E	129	PRO
5	E	130	ALA
7	G	139	ILE
8	H	77	ARG
8	H	82	PRO
8	H	128	ASN
8	H	140	ALA
9	I	11	ASN
9	I	78	CYS
10	J	2	ILE
10	J	55	ASP
10	J	64	ASN

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Mol	Chain	Res	Type
12	L	27	LEU
12	L	50	ASP
12	L	53	HIS
12	L	59	ALA
12	L	60	ARG
1	M	4	GLN
1	M	43	GLU
1	M	57	ARG
1	M	62	ASP
1	M	63	ARG
1	M	67	CYS
1	M	70	CYS
1	M	130	ASP
1	M	250	ILE
1	M	255	SER
1	M	257	ARG
1	M	286	HIS
1	M	311	GLN
1	M	318	SER
1	M	332	LYS
1	M	399	HIS
1	M	410	GLY
1	M	423	ASP
1	M	453	MET
1	M	517	ASN
1	M	567	LYS
1	M	597	LEU
1	M	1112	LYS
1	M	1114	PRO
1	M	1120	LEU
1	M	1122	PRO
1	M	1124	HIS
1	M	1223	ASP
1	M	1233	ASP
1	M	1242	VAL
1	M	1255	GLU
1	M	1281	ARG
1	M	1403	GLU
1	M	1438	THR
2	N	21	GLU
2	N	67	SER
2	N	68	THR

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Mol	Chain	Res	Type
2	N	108	VAL
2	N	124	TYR
2	N	186	GLU
2	N	258	LEU
2	N	334	ILE
2	N	365	THR
2	N	367	LEU
2	N	391	ASP
2	N	435	THR
2	N	468	GLU
2	N	509	ALA
2	N	643	ASP
2	N	708	GLU
2	N	709	ASP
2	N	728	ARG
2	N	731	VAL
2	N	734	HIS
2	N	907	GLY
2	N	958	GLN
2	N	1046	PRO
2	N	1069	PHE
2	N	1097	HIS
2	N	1156	ASP
2	N	1175	LEU
3	O	110	THR
3	O	141	GLY
3	O	184	ASN
3	O	215	GLU
3	O	216	GLY
4	P	5	THR
4	P	8	PHE
4	P	17	LYS
4	P	19	GLU
4	P	218	GLU
5	Q	45	LYS
5	Q	115	ASN
5	Q	129	PRO
5	Q	130	ALA
7	S	139	ILE
8	T	77	ARG
8	T	82	PRO
8	T	107	VAL

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Mol	Chain	Res	Type
8	T	128	ASN
8	T	140	ALA
9	U	11	ASN
9	U	78	CYS
9	U	106	CYS
10	V	2	ILE
10	V	55	ASP
10	V	64	ASN
12	X	27	LEU
12	X	50	ASP
12	X	59	ALA
12	X	60	ARG
1	A	41	MET
1	A	42	ASP
1	A	54	ASN
1	A	59	GLY
1	A	61	ILE
1	A	66	LYS
1	A	76	GLU
1	A	154	SER
1	A	167	CYS
1	A	253	ASN
1	A	314	ALA
1	A	322	VAL
1	A	331	GLY
1	A	424	ILE
1	A	453	MET
1	A	525	GLN
1	A	821	ARG
1	A	958	VAL
1	A	1002	GLY
1	A	1123	GLY
1	A	1139	GLU
1	A	1221	LYS
1	A	1308	THR
1	A	1314	SER
2	B	28	GLU
2	B	65	GLU
2	B	206	ASN
2	B	257	LYS
2	B	258	LEU
2	B	264	SER

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Mol	Chain	Res	Type
2	B	294	ASP
2	B	369	GLY
2	B	448	ILE
2	B	450	ALA
2	B	466	TRP
2	B	467	GLY
2	B	531	GLN
2	B	591	ARG
2	B	619	ILE
2	B	641	GLU
2	B	642	ASP
2	B	751	VAL
2	B	777	ALA
2	B	848	ARG
2	B	869	SER
2	B	879	ARG
2	B	943	SER
2	B	992	ILE
2	B	1069	PHE
2	B	1097	HIS
2	B	1155	SER
2	B	1176	ASN
3	C	126	GLY
3	C	149	LYS
3	C	216	GLY
3	C	237	SER
4	D	14	ARG
4	D	119	ARG
4	D	131	GLU
4	D	198	LEU
4	D	199	ASN
5	E	36	GLU
5	E	74	ASP
5	E	106	GLN
6	F	112	GLU
7	G	154	VAL
8	H	12	VAL
8	H	17	PRO
8	H	32	THR
8	H	59	ILE
8	H	62	SER
8	H	92	ASP

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Mol	Chain	Res	Type
8	H	107	VAL
8	H	108	SER
8	H	134	ASN
9	I	54	GLU
9	I	57	GLY
9	I	59	VAL
9	I	62	ILE
9	I	79	HIS
9	I	106	CYS
10	J	6	ARG
10	J	24	LEU
10	J	28	ASP
10	J	42	LYS
10	J	62	ARG
12	L	28	LYS
12	L	35	SER
1	M	41	MET
1	M	42	ASP
1	M	54	ASN
1	M	61	ILE
1	M	66	LYS
1	M	76	GLU
1	M	167	CYS
1	M	219	PHE
1	M	253	ASN
1	M	314	ALA
1	M	322	VAL
1	M	331	GLY
1	M	424	ILE
1	M	525	GLN
1	M	789	LYS
1	M	821	ARG
1	M	1002	GLY
1	M	1123	GLY
1	M	1169	ILE
1	M	1221	LYS
1	M	1308	THR
1	M	1314	SER
2	N	28	GLU
2	N	46	GLN
2	N	65	GLU
2	N	206	ASN

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Mol	Chain	Res	Type
2	N	257	LYS
2	N	259	TYR
2	N	264	SER
2	N	291	ILE
2	N	294	ASP
2	N	295	GLY
2	N	369	GLY
2	N	448	ILE
2	N	449	ASN
2	N	450	ALA
2	N	466	TRP
2	N	467	GLY
2	N	531	GLN
2	N	591	ARG
2	N	619	ILE
2	N	641	GLU
2	N	642	ASP
2	N	655	LYS
2	N	751	VAL
2	N	777	ALA
2	N	869	SER
2	N	879	ARG
2	N	943	SER
2	N	992	ILE
2	N	1155	SER
2	N	1176	ASN
3	O	126	GLY
3	O	149	LYS
3	O	209	TYR
3	O	237	SER
4	P	14	ARG
4	P	16	LYS
4	P	52	LEU
4	P	119	ARG
4	P	131	GLU
4	P	198	LEU
5	Q	36	GLU
5	Q	74	ASP
5	Q	106	GLN
7	S	154	VAL
8	T	17	PRO
8	T	32	THR

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Mol	Chain	Res	Type
8	T	59	ILE
8	T	62	SER
8	T	92	ASP
8	T	108	SER
8	T	134	ASN
9	U	8	ARG
9	U	54	GLU
9	U	57	GLY
9	U	59	VAL
9	U	62	ILE
9	U	79	HIS
10	V	6	ARG
10	V	24	LEU
10	V	28	ASP
10	V	62	ARG
11	W	53	ASP
12	X	28	LYS
12	X	35	SER
12	X	53	HIS
1	A	48	ALA
1	A	65	LEU
1	A	69	THR
1	A	93	VAL
1	A	128	ILE
1	A	138	ILE
1	A	219	PHE
1	A	400	PRO
1	A	789	LYS
1	A	795	GLU
1	A	846	GLU
1	A	986	ILE
1	A	1140	HIS
1	A	1231	ASP
1	A	1309	ASP
1	A	1405	THR
1	A	1448	GLU
2	B	24	PRO
2	B	27	ALA
2	B	46	GLN
2	B	58	THR
2	B	245	GLU
2	B	259	TYR

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Mol	Chain	Res	Type
2	B	433	GLN
2	B	449	ASN
2	B	559	SER
2	B	711	GLU
2	B	738	PHE
2	B	746	SER
2	B	906	SER
2	B	938	SER
2	B	1103	ILE
2	B	1222	ARG
3	C	90	ASP
3	C	132	PRO
3	C	148	ARG
3	C	213	PRO
4	D	15	LEU
4	D	16	LYS
4	D	21	GLU
4	D	168	LYS
5	E	44	ALA
5	E	92	THR
8	H	139	ASN
9	I	8	ARG
10	J	14	VAL
10	J	29	GLU
11	K	14	GLU
11	K	53	ASP
12	L	26	THR
1	M	48	ALA
1	M	58	LEU
1	M	59	GLY
1	M	65	LEU
1	M	93	VAL
1	M	154	SER
1	M	400	PRO
1	M	415	LEU
1	M	479	ASN
1	M	795	GLU
1	M	846	GLU
1	M	958	VAL
1	M	963	ILE
1	M	986	ILE
1	M	1115	SER

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Mol	Chain	Res	Type
1	M	1139	GLU
1	M	1140	HIS
1	M	1231	ASP
1	M	1309	ASP
1	M	1405	THR
1	M	1448	GLU
2	N	24	PRO
2	N	27	ALA
2	N	58	THR
2	N	245	GLU
2	N	282	ILE
2	N	433	GLN
2	N	559	SER
2	N	711	GLU
2	N	738	PHE
2	N	746	SER
2	N	810	GLU
2	N	848	ARG
2	N	906	SER
2	N	938	SER
2	N	1103	ILE
2	N	1222	ARG
3	O	90	ASP
3	O	132	PRO
3	O	148	ARG
3	O	213	PRO
4	P	15	LEU
4	P	53	SER
4	P	168	LYS
4	P	199	ASN
5	Q	44	ALA
6	R	112	GLU
7	S	136	VAL
8	T	139	ASN
10	V	42	LYS
11	W	14	GLU
12	X	26	THR
1	A	256	GLN
1	A	312	PRO
1	A	415	LEU
1	A	479	ASN
1	A	591	PHE

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Mol	Chain	Res	Type
1	A	1168	GLU
1	A	1169	ILE
1	A	1280	GLU
1	A	1316	VAL
2	B	45	SER
2	B	114	PRO
2	B	282	ILE
2	B	323	VAL
2	B	575	PRO
2	B	636	PRO
2	B	655	LYS
2	B	792	MET
2	B	810	GLU
2	B	818	PRO
2	B	1017	ILE
2	B	1108	ARG
2	B	1171	VAL
2	B	1181	GLU
3	C	12	GLU
3	C	142	VAL
5	E	192	ARG
6	F	128	LYS
8	H	52	GLN
8	H	81	PRO
8	H	90	ALA
8	H	91	ASP
9	I	9	ASP
12	L	40	LEU
1	M	69	THR
1	M	96	ILE
1	M	138	ILE
1	M	256	GLN
1	M	312	PRO
1	M	591	PHE
1	M	1168	GLU
1	M	1280	GLU
1	M	1316	VAL
2	N	114	PRO
2	N	323	VAL
2	N	575	PRO
2	N	636	PRO
2	N	705	MET

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Mol	Chain	Res	Type
2	N	792	MET
2	N	946	ASN
2	N	1017	ILE
2	N	1181	GLU
3	O	142	VAL
4	P	21	GLU
4	P	192	LYS
5	Q	3	GLN
5	Q	92	THR
5	Q	192	ARG
8	T	12	VAL
8	T	52	GLN
8	T	81	PRO
8	T	90	ALA
8	T	91	ASP
8	T	95	TYR
9	U	9	ASP
9	U	56	ALA
10	V	14	VAL
10	V	17	LYS
10	V	29	GLU
12	X	40	LEU
1	A	58	LEU
1	A	72	GLU
1	A	96	ILE
1	A	556	TRP
1	A	780	VAL
1	A	884	ASP
1	A	963	ILE
1	A	1390	ASN
2	B	680	THR
2	B	1157	ALA
3	C	11	ARG
3	C	48	SER
3	C	172	PRO
3	C	214	ASN
4	D	53	SER
4	D	75	LYS
5	E	3	GLN
5	E	73	PRO
7	G	20	PRO
7	G	113	HIS

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Mol	Chain	Res	Type
7	G	136	VAL
8	H	95	TYR
9	I	56	ALA
10	J	17	LYS
11	K	107	THR
1	M	128	ILE
1	M	145	LYS
1	M	556	TRP
1	M	1149	ALA
1	M	1390	ASN
2	N	45	SER
2	N	55	VAL
2	N	56	ASP
2	N	461	LEU
2	N	561	TRP
2	N	1157	ALA
2	N	1171	VAL
3	O	11	ARG
3	O	240	VAL
4	P	75	LYS
5	Q	154	ILE
6	R	128	LYS
7	S	112	LYS
7	S	113	HIS
11	W	64	GLU
11	W	107	THR
1	A	35	ILE
1	A	51	GLY
1	A	357	PRO
1	A	599	SER
1	A	972	HIS
1	A	1174	PHE
2	B	55	VAL
2	B	56	ASP
2	B	461	LEU
2	B	946	ASN
2	B	1214	PRO
5	E	40	GLU
5	E	154	ILE
9	I	3	THR
1	M	35	ILE
1	M	51	GLY

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Mol	Chain	Res	Type
1	M	284	ALA
1	M	599	SER
1	M	972	HIS
1	M	1278	ASN
2	N	249	ARG
2	N	594	ALA
2	N	680	THR
2	N	1214	PRO
3	O	175	ALA
3	O	214	ASN
5	Q	73	PRO
7	S	20	PRO
7	S	128	PRO
2	B	1110	PRO
3	C	240	VAL
5	E	51	GLY
5	E	64	PRO
8	H	44	VAL
1	M	283	GLY
1	M	780	VAL
1	M	948	VAL
3	O	172	PRO
5	Q	51	GLY
8	T	44	VAL
1	A	283	GLY
1	A	284	ALA
1	A	308	ILE
1	A	948	VAL
2	B	1018	PRO
12	L	46	VAL
1	M	308	ILE
1	M	357	PRO
2	N	100	PRO
2	N	818	PRO
5	Q	64	PRO
12	X	46	VAL
1	A	231	PRO
2	B	613	VAL
3	C	176	ILE
1	M	364	VAL
2	N	1018	PRO
2	N	1110	PRO

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Mol	Chain	Res	Type
5	Q	76	GLY
1	A	196	GLU
1	A	336	ILE
1	A	364	VAL
2	B	553	PRO
1	M	196	GLU
2	N	260	GLY
1	A	693	VAL
2	B	100	PRO
1	M	231	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1239/1520 (82%)	1116 (90%)	123 (10%)	10	38
1	M	1239/1520 (82%)	1107 (89%)	132 (11%)	8	34
2	B	958/1061 (90%)	860 (90%)	98 (10%)	9	36
2	N	958/1061 (90%)	853 (89%)	105 (11%)	8	33
3	C	234/274 (85%)	212 (91%)	22 (9%)	11	41
3	O	234/274 (85%)	207 (88%)	27 (12%)	7	30
4	D	160/200 (80%)	136 (85%)	24 (15%)	3	17
4	P	160/200 (80%)	127 (79%)	33 (21%)	1	7
5	E	196/197 (100%)	183 (93%)	13 (7%)	21	61
5	Q	196/197 (100%)	184 (94%)	12 (6%)	23	64
6	F	77/137 (56%)	71 (92%)	6 (8%)	16	53
6	R	77/137 (56%)	72 (94%)	5 (6%)	21	61
7	G	152/152 (100%)	140 (92%)	12 (8%)	15	53
7	S	152/152 (100%)	134 (88%)	18 (12%)	6	29
8	H	118/128 (92%)	105 (89%)	13 (11%)	8	33
8	T	118/128 (92%)	108 (92%)	10 (8%)	13	47

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	I	113/116 (97%)	101 (89%)	12 (11%)	8	34
9	U	113/116 (97%)	103 (91%)	10 (9%)	12	45
10	J	60/65 (92%)	51 (85%)	9 (15%)	3	17
10	V	60/65 (92%)	53 (88%)	7 (12%)	7	30
11	K	99/102 (97%)	94 (95%)	5 (5%)	29	70
11	W	99/102 (97%)	90 (91%)	9 (9%)	12	42
12	L	40/57 (70%)	34 (85%)	6 (15%)	3	17
12	X	40/57 (70%)	33 (82%)	7 (18%)	2	12
All	All	6892/8018 (86%)	6174 (90%)	718 (10%)	9	35

All (718) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	GLN
1	A	34	LYS
1	A	37	PHE
1	A	41	MET
1	A	53	LEU
1	A	68	GLN
1	A	70	CYS
1	A	83	HIS
1	A	93	VAL
1	A	110	CYS
1	A	121	LEU
1	A	141	LEU
1	A	145	LYS
1	A	157	ASP
1	A	160	GLN
1	A	173	THR
1	A	182	VAL
1	A	185	TRP
1	A	200	ARG
1	A	207	ILE
1	A	208	LEU
1	A	219	PHE
1	A	221	SER
1	A	225	ASN
1	A	230	ARG
1	A	231	PRO

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Mol	Chain	Res	Type
1	A	265	LYS
1	A	282	ASN
1	A	287	HIS
1	A	297	GLN
1	A	302	THR
1	A	320	ARG
1	A	322	VAL
1	A	324	SER
1	A	337	ARG
1	A	344	ARG
1	A	385	ILE
1	A	394	ASN
1	A	408	ASP
1	A	425	GLN
1	A	434	ARG
1	A	443	LEU
1	A	445	ASN
1	A	449	SER
1	A	451	HIS
1	A	469	ARG
1	A	470	LEU
1	A	475	THR
1	A	479	ASN
1	A	481	ASP
1	A	486	GLU
1	A	489	LEU
1	A	493	GLN
1	A	503	GLN
1	A	505	CYS
1	A	512	VAL
1	A	538	ASP
1	A	597	LEU
1	A	618	GLU
1	A	629	LEU
1	A	631	HIS
1	A	635	ARG
1	A	666	ILE
1	A	670	ILE
1	A	680	THR
1	A	685	GLU
1	A	690	VAL
1	A	710	LEU

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Mol	Chain	Res	Type
1	A	727	ASP
1	A	738	LYS
1	A	739	ASP
1	A	741	ASN
1	A	762	SER
1	A	774	ARG
1	A	783	THR
1	A	805	LEU
1	A	821	ARG
1	A	827	THR
1	A	834	THR
1	A	838	GLN
1	A	855	THR
1	A	858	ASN
1	A	903	ASN
1	A	906	HIS
1	A	907	THR
1	A	937	VAL
1	A	961	ARG
1	A	976	THR
1	A	978	PRO
1	A	983	ILE
1	A	1005	GLU
1	A	1029	ARG
1	A	1033	GLN
1	A	1036	ARG
1	A	1047	SER
1	A	1095	THR
1	A	1114	PRO
1	A	1116	LEU
1	A	1122	PRO
1	A	1124	HIS
1	A	1129	GLU
1	A	1170	ILE
1	A	1171	GLN
1	A	1193	LEU
1	A	1217	LYS
1	A	1257	ASP
1	A	1264	GLU
1	A	1270	ASN
1	A	1280	GLU
1	A	1288	ASP

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Mol	Chain	Res	Type
1	A	1295	THR
1	A	1297	GLU
1	A	1299	VAL
1	A	1325	THR
1	A	1333	ILE
1	A	1353	TYR
1	A	1370	LEU
1	A	1377	THR
1	A	1385	THR
1	A	1386	ARG
1	A	1394	THR
1	A	1444	MET
1	A	1445	ILE
2	B	20	ASP
2	B	21	GLU
2	B	30	SER
2	B	46	GLN
2	B	57	TYR
2	B	61	ASP
2	B	97	VAL
2	B	119	LEU
2	B	128	LEU
2	B	134	LYS
2	B	194	GLU
2	B	203	PHE
2	B	217	ARG
2	B	225	VAL
2	B	249	ARG
2	B	261	ARG
2	B	268	THR
2	B	272	THR
2	B	371	GLU
2	B	376	PHE
2	B	384	ARG
2	B	393	LYS
2	B	401	PHE
2	B	416	LEU
2	B	425	THR
2	B	427	ASP
2	B	429	PHE
2	B	430	ARG
2	B	452	THR

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Mol	Chain	Res	Type
2	B	465	ASN
2	B	466	TRP
2	B	473	MET
2	B	474	SER
2	B	479	VAL
2	B	485	ARG
2	B	491	THR
2	B	498	THR
2	B	516	ASN
2	B	552	MET
2	B	557	PHE
2	B	563	MET
2	B	582	VAL
2	B	597	MET
2	B	615	MET
2	B	616	ILE
2	B	636	PRO
2	B	694	ASP
2	B	705	MET
2	B	714	GLU
2	B	722	ASP
2	B	730	ARG
2	B	732	SER
2	B	737	THR
2	B	748	ILE
2	B	786	ASN
2	B	790	ASP
2	B	797	TYR
2	B	805	THR
2	B	816	GLU
2	B	831	SER
2	B	835	GLN
2	B	839	MET
2	B	868	MET
2	B	878	GLN
2	B	879	ARG
2	B	887	HIS
2	B	889	THR
2	B	894	ASP
2	B	895	ASP
2	B	901	PRO
2	B	904	ARG

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Mol	Chain	Res	Type
2	B	915	THR
2	B	939	THR
2	B	944	THR
2	B	953	LEU
2	B	956	THR
2	B	959	ASP
2	B	987	LYS
2	B	997	GLU
2	B	999	MET
2	B	1006	ILE
2	B	1007	VAL
2	B	1047	PHE
2	B	1049	ASP
2	B	1069	PHE
2	B	1084	GLN
2	B	1087	PHE
2	B	1095	LEU
2	B	1098	MET
2	B	1147	LEU
2	B	1151	LEU
2	B	1159	ARG
2	B	1175	LEU
2	B	1178	ASN
2	B	1183	LYS
2	B	1185	CYS
2	B	1202	LEU
2	B	1220	ARG
3	C	11	ARG
3	C	22	LEU
3	C	23	SER
3	C	26	ASP
3	C	57	VAL
3	C	62	PHE
3	C	77	ILE
3	C	78	GLU
3	C	89	GLU
3	C	91	HIS
3	C	99	LEU
3	C	102	GLN
3	C	104	PHE
3	C	124	LEU
3	C	129	ILE

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Mol	Chain	Res	Type
3	C	138	GLU
3	C	145	CYS
3	C	147	LEU
3	C	166	GLU
3	C	177	GLU
3	C	194	GLU
3	C	238	ILE
4	D	4	SER
4	D	11	ARG
4	D	12	ARG
4	D	17	LYS
4	D	18	VAL
4	D	20	GLU
4	D	22	GLU
4	D	23	ASN
4	D	29	LEU
4	D	38	ILE
4	D	40	HIS
4	D	47	LEU
4	D	65	GLU
4	D	70	PHE
4	D	120	GLU
4	D	124	GLU
4	D	138	ASN
4	D	156	ASP
4	D	187	THR
4	D	200	ASN
4	D	214	LEU
4	D	219	THR
4	D	220	LEU
4	D	221	TYR
5	E	7	ARG
5	E	31	THR
5	E	37	LEU
5	E	41	ASP
5	E	72	PHE
5	E	74	ASP
5	E	78	LEU
5	E	104	ASN
5	E	110	PHE
5	E	112	TYR
5	E	115	ASN

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Mol	Chain	Res	Type
5	E	192	ARG
5	E	212	ARG
6	F	79	ARG
6	F	81	THR
6	F	90	ARG
6	F	111	LEU
6	F	112	GLU
6	F	119	ARG
7	G	1	MET
7	G	13	LEU
7	G	21	ARG
7	G	24	GLN
7	G	45	ILE
7	G	53	ASN
7	G	65	ASP
7	G	74	TYR
7	G	111	THR
7	G	113	HIS
7	G	126	ASN
7	G	171	ILE
8	H	26	ILE
8	H	33	GLN
8	H	61	SER
8	H	64	ASN
8	H	86	ASP
8	H	89	LEU
8	H	123	MET
8	H	128	ASN
8	H	129	TYR
8	H	130	ARG
8	H	138	GLU
8	H	143	LEU
8	H	146	ARG
9	I	6	PHE
9	I	8	ARG
9	I	15	TYR
9	I	29	CYS
9	I	55	THR
9	I	59	VAL
9	I	86	PHE
9	I	93	LYS
9	I	94	ASP

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Mol	Chain	Res	Type
9	I	96	SER
9	I	101	PHE
9	I	106	CYS
10	J	2	ILE
10	J	7	CYS
10	J	13	VAL
10	J	23	ASN
10	J	28	ASP
10	J	43	ARG
10	J	44	TYR
10	J	48	ARG
10	J	55	ASP
11	K	42	LEU
11	K	47	ARG
11	K	51	LEU
11	K	111	LEU
11	K	114	LEU
12	L	27	LEU
12	L	35	SER
12	L	54	ARG
12	L	55	ILE
12	L	68	GLU
12	L	70	ARG
1	M	11	LEU
1	M	18	GLN
1	M	34	LYS
1	M	37	PHE
1	M	41	MET
1	M	54	ASN
1	M	68	GLN
1	M	70	CYS
1	M	83	HIS
1	M	93	VAL
1	M	110	CYS
1	M	121	LEU
1	M	145	LYS
1	M	160	GLN
1	M	173	THR
1	M	182	VAL
1	M	185	TRP
1	M	200	ARG
1	M	203	SER

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Mol	Chain	Res	Type
1	M	208	LEU
1	M	219	PHE
1	M	221	SER
1	M	225	ASN
1	M	230	ARG
1	M	244	PRO
1	M	265	LYS
1	M	275	SER
1	M	297	GLN
1	M	302	THR
1	M	315	LEU
1	M	320	ARG
1	M	322	VAL
1	M	337	ARG
1	M	344	ARG
1	M	369	SER
1	M	385	ILE
1	M	394	ASN
1	M	408	ASP
1	M	425	GLN
1	M	443	LEU
1	M	445	ASN
1	M	451	HIS
1	M	454	SER
1	M	469	ARG
1	M	470	LEU
1	M	476	SER
1	M	481	ASP
1	M	489	LEU
1	M	493	GLN
1	M	504	LEU
1	M	505	CYS
1	M	512	VAL
1	M	516	SER
1	M	524	VAL
1	M	538	ASP
1	M	597	LEU
1	M	618	GLU
1	M	626	ASN
1	M	631	HIS
1	M	635	ARG
1	M	666	ILE

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Mol	Chain	Res	Type
1	M	670	ILE
1	M	680	THR
1	M	685	GLU
1	M	690	VAL
1	M	710	LEU
1	M	738	LYS
1	M	740	LEU
1	M	741	ASN
1	M	762	SER
1	M	769	SER
1	M	774	ARG
1	M	783	THR
1	M	805	LEU
1	M	816	HIS
1	M	821	ARG
1	M	827	THR
1	M	834	THR
1	M	838	GLN
1	M	852	TYR
1	M	855	THR
1	M	858	ASN
1	M	871	ASP
1	M	873	MET
1	M	874	ASP
1	M	903	ASN
1	M	906	HIS
1	M	907	THR
1	M	909	ASP
1	M	937	VAL
1	M	961	ARG
1	M	976	THR
1	M	978	PRO
1	M	983	ILE
1	M	1005	GLU
1	M	1029	ARG
1	M	1033	GLN
1	M	1036	ARG
1	M	1110	ASN
1	M	1114	PRO
1	M	1116	LEU
1	M	1122	PRO
1	M	1124	HIS

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Mol	Chain	Res	Type
1	M	1129	GLU
1	M	1165	GLU
1	M	1170	ILE
1	M	1171	GLN
1	M	1187	GLN
1	M	1193	LEU
1	M	1217	LYS
1	M	1257	ASP
1	M	1264	GLU
1	M	1270	ASN
1	M	1273	LEU
1	M	1280	GLU
1	M	1288	ASP
1	M	1295	THR
1	M	1297	GLU
1	M	1325	THR
1	M	1329	THR
1	M	1333	ILE
1	M	1345	ARG
1	M	1353	TYR
1	M	1370	LEU
1	M	1386	ARG
1	M	1394	THR
1	M	1405	THR
1	M	1410	PHE
1	M	1426	GLU
1	M	1442	ASP
1	M	1444	MET
1	M	1445	ILE
2	N	20	ASP
2	N	22	SER
2	N	25	ILE
2	N	30	SER
2	N	57	TYR
2	N	61	ASP
2	N	128	LEU
2	N	134	LYS
2	N	175	ARG
2	N	194	GLU
2	N	217	ARG
2	N	218	SER
2	N	235	SER

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Mol	Chain	Res	Type
2	N	249	ARG
2	N	261	ARG
2	N	272	THR
2	N	294	ASP
2	N	298	LEU
2	N	299	GLU
2	N	319	GLU
2	N	364	ILE
2	N	371	GLU
2	N	376	PHE
2	N	393	LYS
2	N	401	PHE
2	N	416	LEU
2	N	419	THR
2	N	425	THR
2	N	427	ASP
2	N	429	PHE
2	N	465	ASN
2	N	466	TRP
2	N	473	MET
2	N	475	SER
2	N	479	VAL
2	N	485	ARG
2	N	490	SER
2	N	498	THR
2	N	502	ILE
2	N	516	ASN
2	N	552	MET
2	N	555	ILE
2	N	557	PHE
2	N	563	MET
2	N	582	VAL
2	N	597	MET
2	N	615	MET
2	N	616	ILE
2	N	636	PRO
2	N	643	ASP
2	N	645	SER
2	N	648	HIS
2	N	680	THR
2	N	694	ASP
2	N	705	MET

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Mol	Chain	Res	Type
2	N	714	GLU
2	N	722	ASP
2	N	732	SER
2	N	737	THR
2	N	748	ILE
2	N	786	ASN
2	N	790	ASP
2	N	797	TYR
2	N	805	THR
2	N	811	TYR
2	N	815	ARG
2	N	831	SER
2	N	835	GLN
2	N	837	ASP
2	N	839	MET
2	N	844	SER
2	N	868	MET
2	N	878	GLN
2	N	879	ARG
2	N	887	HIS
2	N	889	THR
2	N	895	ASP
2	N	901	PRO
2	N	915	THR
2	N	939	THR
2	N	944	THR
2	N	953	LEU
2	N	956	THR
2	N	959	ASP
2	N	987	LYS
2	N	999	MET
2	N	1006	ILE
2	N	1007	VAL
2	N	1022	THR
2	N	1047	PHE
2	N	1049	ASP
2	N	1060	ARG
2	N	1084	GLN
2	N	1087	PHE
2	N	1095	LEU
2	N	1147	LEU
2	N	1150	ARG

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Mol	Chain	Res	Type
2	N	1159	ARG
2	N	1175	LEU
2	N	1178	ASN
2	N	1183	LYS
2	N	1185	CYS
2	N	1202	LEU
2	N	1214	PRO
2	N	1220	ARG
3	O	3	GLU
3	O	11	ARG
3	O	16	ASP
3	O	26	ASP
3	O	52	GLU
3	O	54	ASN
3	O	57	VAL
3	O	62	PHE
3	O	69	LEU
3	O	77	ILE
3	O	78	GLU
3	O	89	GLU
3	O	91	HIS
3	O	99	LEU
3	O	104	PHE
3	O	115	SER
3	O	124	LEU
3	O	138	GLU
3	O	145	CYS
3	O	147	LEU
3	O	151	GLN
3	O	166	GLU
3	O	177	GLU
3	O	197	SER
3	O	202	PRO
3	O	238	ILE
3	O	259	LEU
4	P	4	SER
4	P	10	THR
4	P	11	ARG
4	P	16	LYS
4	P	17	LYS
4	P	20	GLU
4	P	22	GLU

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Mol	Chain	Res	Type
4	P	23	ASN
4	P	29	LEU
4	P	38	ILE
4	P	40	HIS
4	P	47	LEU
4	P	59	ILE
4	P	65	GLU
4	P	70	PHE
4	P	120	GLU
4	P	124	GLU
4	P	140	ASP
4	P	151	PHE
4	P	152	SER
4	P	185	CYS
4	P	187	THR
4	P	192	LYS
4	P	193	THR
4	P	197	SER
4	P	204	ASP
4	P	206	GLU
4	P	211	LEU
4	P	213	GLU
4	P	214	LEU
4	P	215	SER
4	P	216	ASN
4	P	221	TYR
5	Q	31	THR
5	Q	37	LEU
5	Q	41	ASP
5	Q	72	PHE
5	Q	74	ASP
5	Q	78	LEU
5	Q	104	ASN
5	Q	110	PHE
5	Q	115	ASN
5	Q	134	THR
5	Q	191	LYS
5	Q	212	ARG
6	R	79	ARG
6	R	90	ARG
6	R	111	LEU
6	R	112	GLU

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Mol	Chain	Res	Type
6	R	119	ARG
7	S	1	MET
7	S	13	LEU
7	S	21	ARG
7	S	38	CYS
7	S	53	ASN
7	S	74	TYR
7	S	75	ARG
7	S	78	VAL
7	S	95	SER
7	S	110	VAL
7	S	111	THR
7	S	113	HIS
7	S	120	THR
7	S	129	SER
7	S	139	ILE
7	S	141	SER
7	S	143	ILE
7	S	145	VAL
8	T	2	SER
8	T	64	ASN
8	T	89	LEU
8	T	95	TYR
8	T	123	MET
8	T	128	ASN
8	T	129	TYR
8	T	130	ARG
8	T	135	LEU
8	T	138	GLU
9	U	7	CYS
9	U	9	ASP
9	U	15	TYR
9	U	55	THR
9	U	59	VAL
9	U	86	PHE
9	U	93	LYS
9	U	94	ASP
9	U	100	PHE
9	U	106	CYS
10	V	7	CYS
10	V	13	VAL
10	V	23	ASN

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Mol	Chain	Res	Type
10	V	43	ARG
10	V	44	TYR
10	V	48	ARG
10	V	59	LYS
11	W	17	SER
11	W	25	THR
11	W	31	VAL
11	W	42	LEU
11	W	47	ARG
11	W	50	LEU
11	W	61	TYR
11	W	111	LEU
11	W	114	LEU
12	X	27	LEU
12	X	38	LEU
12	X	54	ARG
12	X	55	ILE
12	X	63	ARG
12	X	68	GLU
12	X	70	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (226) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	54	ASN
1	A	68	GLN
1	A	75	ASN
1	A	169	ASN
1	A	171	GLN
1	A	225	ASN
1	A	253	ASN
1	A	256	GLN
1	A	282	ASN
1	A	297	GLN
1	A	316	GLN
1	A	339	ASN
1	A	394	ASN
1	A	435	HIS
1	A	451	HIS
1	A	479	ASN
1	A	493	GLN
1	A	503	GLN

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Mol	Chain	Res	Type
1	A	517	ASN
1	A	603	ASN
1	A	611	GLN
1	A	631	HIS
1	A	640	GLN
1	A	723	ASN
1	A	741	ASN
1	A	745	GLN
1	A	757	ASN
1	A	786	HIS
1	A	858	ASN
1	A	903	ASN
1	A	926	GLN
1	A	965	GLN
1	A	969	GLN
1	A	1011	GLN
1	A	1048	ASN
1	A	1078	GLN
1	A	1106	ASN
1	A	1203	ASN
1	A	1218	GLN
1	A	1258	HIS
1	A	1354	ASN
1	A	1387	HIS
1	A	1432	GLN
2	B	46	GLN
2	B	115	GLN
2	B	178	ASN
2	B	224	GLN
2	B	236	HIS
2	B	366	GLN
2	B	465	ASN
2	B	484	ASN
2	B	499	ASN
2	B	513	GLN
2	B	515	HIS
2	B	516	ASN
2	B	518	HIS
2	B	538	ASN
2	B	686	ASN
2	B	744	HIS
2	B	835	GLN

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Mol	Chain	Res	Type
2	B	842	ASN
2	B	862	GLN
2	B	887	HIS
2	B	946	ASN
2	B	957	ASN
2	B	958	GLN
2	B	975	GLN
2	B	986	GLN
2	B	1025	HIS
2	B	1065	GLN
2	B	1074	ASN
2	B	1161	HIS
2	B	1179	GLN
2	B	1193	GLN
3	C	17	ASN
3	C	24	ASN
3	C	65	HIS
3	C	73	GLN
3	C	79	GLN
3	C	91	HIS
3	C	112	ASN
3	C	123	ASN
3	C	167	HIS
3	C	252	GLN
4	D	39	ASN
4	D	40	HIS
4	D	41	GLN
4	D	138	ASN
4	D	165	GLN
5	E	3	GLN
5	E	101	GLN
5	E	104	ASN
5	E	106	GLN
5	E	113	GLN
5	E	147	HIS
6	F	100	GLN
7	G	14	HIS
7	G	53	ASN
7	G	57	GLN
7	G	71	ASN
7	G	97	HIS
7	G	117	GLN

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Mol	Chain	Res	Type
7	G	122	ASN
7	G	126	ASN
7	G	158	HIS
8	H	64	ASN
8	H	128	ASN
8	H	131	ASN
8	H	137	GLN
9	I	12	ASN
9	I	46	HIS
9	I	60	GLN
9	I	83	ASN
9	I	108	HIS
10	J	53	HIS
11	K	65	HIS
11	K	89	ASN
11	K	104	ASN
1	M	75	ASN
1	M	169	ASN
1	M	171	GLN
1	M	225	ASN
1	M	253	ASN
1	M	256	GLN
1	M	282	ASN
1	M	297	GLN
1	M	316	GLN
1	M	339	ASN
1	M	390	GLN
1	M	435	HIS
1	M	451	HIS
1	M	479	ASN
1	M	493	GLN
1	M	503	GLN
1	M	517	ASN
1	M	611	GLN
1	M	631	HIS
1	M	698	GLN
1	M	736	ASN
1	M	741	ASN
1	M	745	GLN
1	M	757	ASN
1	M	786	HIS
1	M	858	ASN

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Mol	Chain	Res	Type
1	M	903	ASN
1	M	926	GLN
1	M	965	GLN
1	M	969	GLN
1	M	1011	GLN
1	M	1048	ASN
1	M	1110	ASN
1	M	1203	ASN
1	M	1218	GLN
1	M	1258	HIS
1	M	1354	ASN
1	M	1432	GLN
2	N	46	GLN
2	N	115	GLN
2	N	121	ASN
2	N	178	ASN
2	N	224	GLN
2	N	236	HIS
2	N	363	HIS
2	N	366	GLN
2	N	465	ASN
2	N	484	ASN
2	N	499	ASN
2	N	513	GLN
2	N	515	HIS
2	N	516	ASN
2	N	518	HIS
2	N	573	GLN
2	N	744	HIS
2	N	842	ASN
2	N	862	GLN
2	N	957	ASN
2	N	975	GLN
2	N	1015	HIS
2	N	1025	HIS
2	N	1040	ASN
2	N	1062	HIS
2	N	1065	GLN
2	N	1076	HIS
2	N	1117	GLN
2	N	1161	HIS
2	N	1179	GLN

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Mol	Chain	Res	Type
2	N	1193	GLN
2	N	1211	ASN
3	O	17	ASN
3	O	65	HIS
3	O	73	GLN
3	O	79	GLN
3	O	91	HIS
3	O	112	ASN
3	O	123	ASN
3	O	167	HIS
3	O	252	GLN
4	P	9	GLN
4	P	40	HIS
4	P	51	ASN
4	P	74	GLN
5	Q	3	GLN
5	Q	99	HIS
5	Q	101	GLN
5	Q	104	ASN
5	Q	106	GLN
5	Q	113	GLN
5	Q	147	HIS
6	R	100	GLN
7	S	14	HIS
7	S	53	ASN
7	S	97	HIS
7	S	122	ASN
7	S	126	ASN
8	T	64	ASN
8	T	128	ASN
8	T	131	ASN
8	T	137	GLN
9	U	46	HIS
9	U	83	ASN
9	U	89	GLN
9	U	108	HIS
10	V	53	HIS
10	V	64	ASN
11	W	65	HIS
11	W	89	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
15	3	10/17 (58%)	0	0
15	6	10/17 (58%)	0	0
All	All	20/34 (58%)	0	0

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
13	BRU	1	23	13,15	13,21,22	4.63	4 (30%)	16,30,33	4.03	3 (18%)
13	BRU	4	23	13,15	13,21,22	4.65	4 (30%)	16,30,33	4.06	3 (18%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
13	BRU	1	23	13,15	-	0/3/21/22	0/2/2/2
13	BRU	4	23	13,15	-	0/3/21/22	0/2/2/2

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	BR-C5	-15.07	1.50	1.90
13	1	23	BRU	BR-C5	-14.98	1.50	1.90
13	1	23	BRU	C6-N1	2.87	1.39	1.35
13	4	23	BRU	C6-N1	2.88	1.39	1.35
13	4	23	BRU	C4-N3	3.43	1.39	1.33
13	1	23	BRU	C4-N3	3.53	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	4	23	BRU	C4-C5	5.57	1.45	1.38
13	1	23	BRU	C4-C5	5.58	1.45	1.38

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	4	23	BRU	C5-C4-N3	-8.15	115.30	124.00
13	1	23	BRU	C5-C4-N3	-8.09	115.36	124.00
13	4	23	BRU	C5-C6-N1	2.09	123.89	119.79
13	1	23	BRU	C5-C6-N1	2.11	123.93	119.79
13	1	23	BRU	C4-N3-C2	13.55	126.96	115.25
13	4	23	BRU	C4-N3-C2	13.64	127.04	115.25

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
13	1	23	BRU	6	0
13	4	23	BRU	6	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 16 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1416/1733 (81%)	-0.07	8 (0%) 90 84	12, 52, 93, 119	0
1	M	1416/1733 (81%)	-0.06	14 (0%) 84 75	10, 53, 94, 123	0
2	B	1104/1224 (90%)	-0.02	8 (0%) 89 83	12, 62, 103, 120	0
2	N	1104/1224 (90%)	0.04	13 (1%) 81 69	16, 65, 104, 121	0
3	C	266/318 (83%)	-0.11	0 100 100	24, 52, 83, 100	0
3	O	266/318 (83%)	-0.12	0 100 100	25, 54, 85, 106	0
4	D	178/221 (80%)	-0.04	1 (0%) 90 84	36, 68, 100, 108	0
4	P	178/221 (80%)	0.81	23 (12%) 5 3	55, 85, 105, 113	0
5	E	214/215 (99%)	-0.01	1 (0%) 91 87	35, 80, 106, 114	0
5	Q	214/215 (99%)	0.10	1 (0%) 91 87	35, 82, 107, 119	0
6	F	87/155 (56%)	-0.28	0 100 100	13, 34, 62, 78	0
6	R	87/155 (56%)	-0.21	0 100 100	15, 34, 63, 76	0
7	G	171/171 (100%)	-0.08	0 100 100	37, 55, 85, 99	0
7	S	171/171 (100%)	0.75	17 (9%) 9 5	37, 69, 110, 116	0
8	H	134/146 (91%)	0.21	3 (2%) 65 50	60, 88, 105, 114	0
8	T	134/146 (91%)	0.18	2 (1%) 76 63	66, 89, 104, 116	0
9	I	119/122 (97%)	0.11	2 (1%) 73 60	47, 81, 102, 117	0
9	U	119/122 (97%)	0.11	3 (2%) 61 47	45, 84, 102, 119	0
10	J	65/70 (92%)	-0.16	0 100 100	23, 52, 74, 91	0
10	V	65/70 (92%)	-0.15	0 100 100	28, 53, 78, 91	0
11	K	114/120 (95%)	-0.26	0 100 100	23, 54, 72, 83	0
11	W	114/120 (95%)	-0.20	0 100 100	21, 54, 74, 84	0
12	L	46/70 (65%)	0.28	4 (8%) 13 7	37, 89, 107, 107	0
12	X	46/70 (65%)	0.29	2 (4%) 39 25	42, 93, 107, 108	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1	17/26 (65%)	0.20	1 (5%) 26 14	47, 101, 140, 144	0
13	4	17/26 (65%)	0.26	0 100 100	50, 102, 139, 142	0
14	2	6/13 (46%)	0.32	0 100 100	114, 121, 127, 133	0
14	5	6/13 (46%)	0.34	0 100 100	114, 121, 129, 136	0
15	3	11/17 (64%)	0.17	1 (9%) 11 6	88, 93, 131, 133	0
15	6	11/17 (64%)	0.11	1 (9%) 11 6	88, 96, 130, 133	0
All	All	7896/9242 (85%)	0.01	105 (1%) 79 67	10, 61, 102, 144	0

All (105) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	734	HIS	5.1
4	P	188	ALA	5.0
7	S	137	ILE	4.9
4	P	185	CYS	4.6
7	S	116	PRO	4.4
9	U	119	THR	4.4
7	S	133	SER	4.1
12	L	26	THR	3.8
9	I	119	THR	3.8
2	B	167	ILE	3.7
1	M	1455	PRO	3.7
1	M	158	PRO	3.6
2	N	867	GLY	3.6
7	S	114	LEU	3.5
4	P	210	ILE	3.4
4	P	123	LEU	3.4
1	M	69	THR	3.3
4	P	134	THR	3.3
1	A	69	THR	3.3
7	S	130	TYR	3.3
2	N	734	HIS	3.2
1	A	255	SER	3.2
2	N	715	ALA	3.2
2	N	918	ILE	3.2
7	S	117	GLN	3.2
1	M	2	VAL	3.1
1	A	2	VAL	3.1
12	L	25	ALA	3.1
4	P	126	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
2	N	733	HIS	3.1
9	U	120	GLN	3.1
4	P	203	SER	3.0
7	S	103	VAL	2.9
2	N	709	ASP	2.9
1	M	155	GLU	2.9
7	S	134	GLU	2.8
2	N	246	LYS	2.8
2	N	250	PHE	2.8
4	P	144	THR	2.8
1	M	255	SER	2.8
2	N	167	ILE	2.7
12	X	27	LEU	2.7
7	S	132	SER	2.7
7	S	84	GLY	2.7
1	A	1455	PRO	2.6
4	P	136	GLY	2.6
2	N	713	ALA	2.6
4	P	38	ILE	2.6
2	N	868	MET	2.6
12	X	25	ALA	2.6
12	L	43	THR	2.6
1	M	195	ASP	2.6
4	P	207	LEU	2.6
8	T	76	THR	2.6
4	P	119	ARG	2.6
12	L	27	LEU	2.5
7	S	162	SER	2.5
2	B	715	ALA	2.5
7	S	101	VAL	2.5
2	N	869	SER	2.5
2	N	247	GLY	2.5
9	U	117	LYS	2.5
8	H	76	THR	2.4
8	H	108	SER	2.4
15	3	0	U	2.4
9	I	60	GLN	2.4
5	E	126	SER	2.4
7	S	118	ASP	2.4
4	P	217	LEU	2.4
4	P	141	LEU	2.4
1	M	257	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
8	H	139	ASN	2.3
4	P	200	ASN	2.3
7	S	91	VAL	2.3
4	P	213	GLU	2.3
15	6	0	U	2.3
7	S	166	ASP	2.3
4	P	12	ARG	2.3
4	P	118	THR	2.3
8	T	2	SER	2.3
4	P	189	ASP	2.3
1	M	44	THR	2.3
1	M	173	THR	2.2
7	S	99	PHE	2.2
4	D	18	VAL	2.2
4	P	18	VAL	2.2
1	A	1092	LYS	2.2
2	B	918	ILE	2.2
13	1	12	DG	2.2
2	B	470	LYS	2.2
5	Q	50	MET	2.2
4	P	154	PHE	2.2
1	A	256	GLN	2.2
1	M	161	LEU	2.1
1	A	253	ASN	2.1
7	S	113	HIS	2.1
4	P	206	GLU	2.1
2	B	250	PHE	2.1
1	A	195	ASP	2.1
1	M	71	GLN	2.1
1	M	251	SER	2.1
2	B	867	GLY	2.1
1	M	1257	ASP	2.0
4	P	171	GLY	2.0
2	B	108	VAL	2.0

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

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

less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
13	BRU	1	23	20/21	0.70	0.21	-	85,89,94,97	0
13	BRU	4	23	20/21	0.75	0.19	-	83,89,95,98	0

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
16	ZN	V	9998	1/1	0.99	0.25	1.91	52,52,52,52	0
16	ZN	J	9990	1/1	0.97	0.23	1.80	52,52,52,52	0
16	ZN	I	9988	1/1	0.98	0.23	1.35	65,65,65,65	0
16	ZN	C	9987	1/1	0.99	0.22	1.01	28,28,28,28	0
16	ZN	O	9995	1/1	0.98	0.23	0.86	43,43,43,43	0
16	ZN	U	9996	1/1	0.99	0.22	0.84	71,71,71,71	0
16	ZN	M	9992	1/1	0.95	0.22	0.48	74,74,74,74	0
16	ZN	N	9994	1/1	0.98	0.22	0.48	38,38,38,38	0
16	ZN	B	9986	1/1	0.99	0.24	0.45	33,33,33,33	0
16	ZN	A	9985	1/1	0.98	0.23	-0.21	40,40,40,40	0
16	ZN	A	9984	1/1	0.96	0.19	-0.29	70,70,70,70	0
16	ZN	M	9993	1/1	0.99	0.23	-0.61	37,37,37,37	0
16	ZN	I	9989	1/1	0.90	0.17	-0.66	117,117,117,117	0
16	ZN	U	9997	1/1	0.97	0.18	-0.81	119,119,119,119	0
16	ZN	L	9991	1/1	0.99	0.15	-0.93	90,90,90,90	0
16	ZN	X	9999	1/1	0.97	0.17	-1.08	103,103,103,103	0

6.5 Other polymers [i](#)

There are no such residues in this entry.