



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 3, 2023 – 06:59 AM EDT

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

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.34

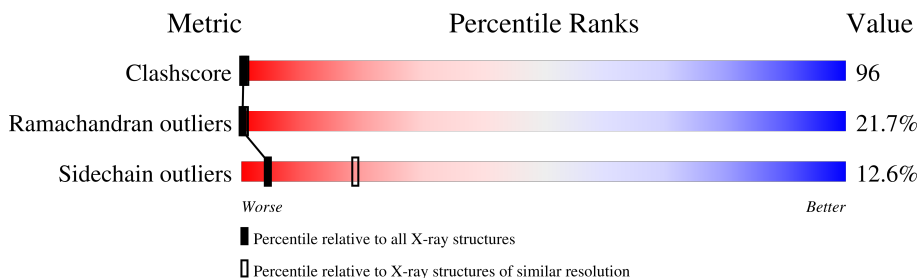
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.

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



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

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

Note EDS was not executed.

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

2 Entry composition

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

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

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

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

There are 4 discrepancies between the modelled and reference sequences:

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

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

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

There are 3 discrepancies between the modelled and reference sequences:

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

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

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

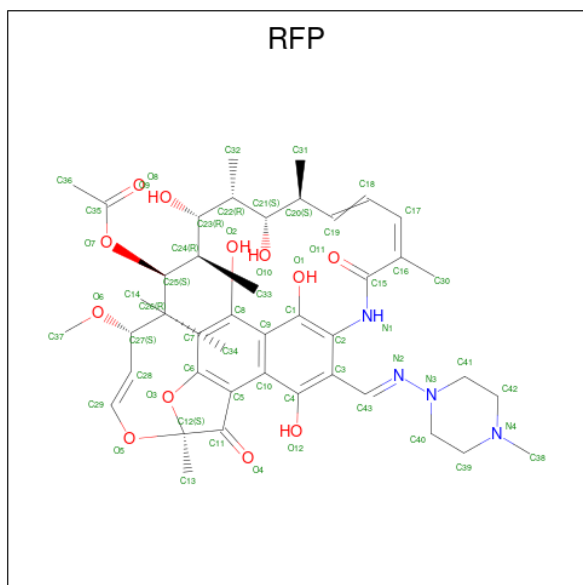
There are 9 discrepancies between the modelled and reference sequences:

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

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

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

- Molecule 5 is RIFAMPICIN (three-letter code: RFP) (formula: $C_{43}H_{58}N_4O_{12}$).



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

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

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

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

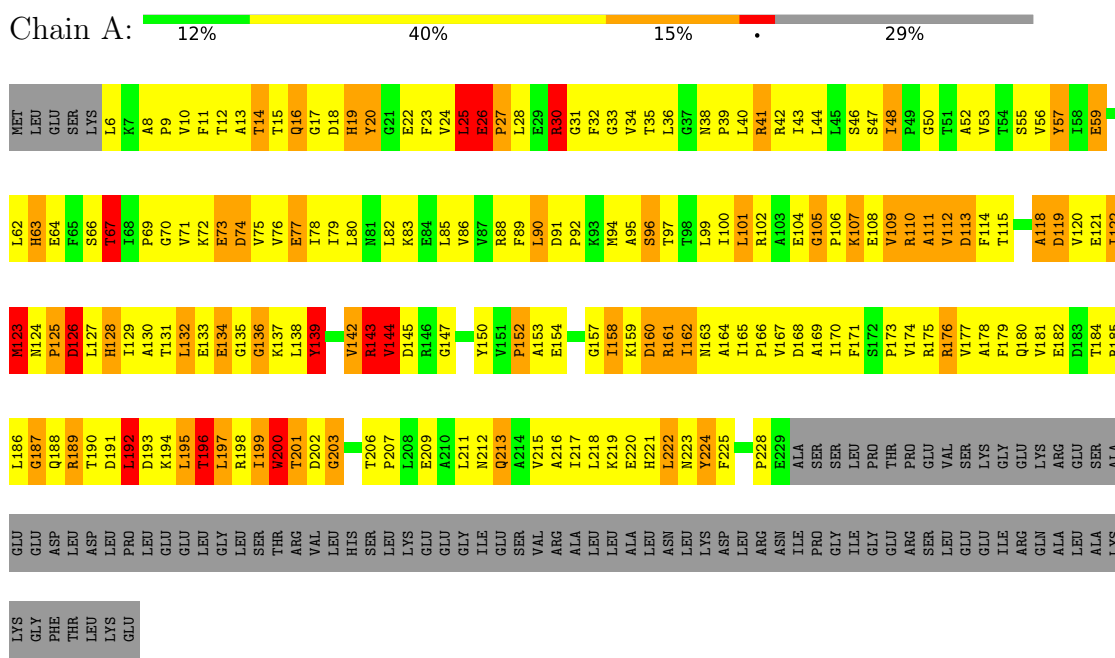
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	D	1	Total	Zn	0	0
			1	1		

3 Residue-property plots

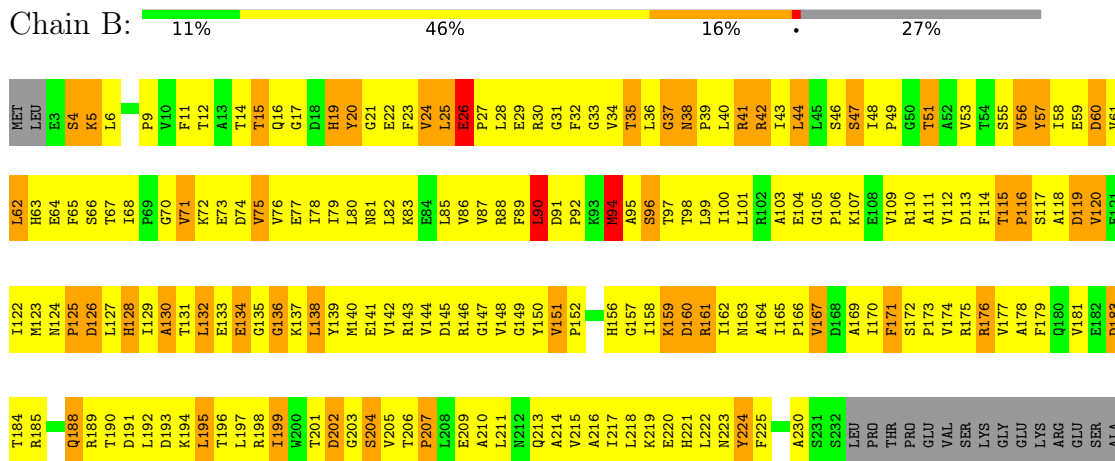
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded 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. 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.

Note EDS was not executed.

• Molecule 1: DNA-DIRECTED RNA POLYMERASE



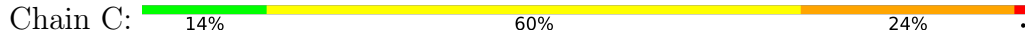
• Molecule 1: DNA-DIRECTED RNA POLYMERASE



GLU
GLU
ASP
LEU
ASP
LEU
PRO
LEU
LEU
GLU
GLU
LEU
GLY
LEU
LEU
SER
THR
ARG
ARG
LYS
GLY
GLU
GLY
GLY
ILE
GLU
SER
SER
LYS
ARG
ASN
ASN
ILE
PRO
GLY
ILE
GLY
GLU
ARG
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LEU
LEU
GLU
ALA
LYS

LYS
GLY
PHE
THR
LEU
LEU
GLU

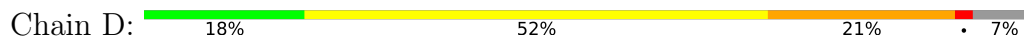
● Molecule 2: DNA-DIRECTED RNA POLYMERASE



MET	G62	G63	L64	V65	L66	D67	F68	L69	I9	R10	E11	V12	I13	P14	L15	P16	F17	L18	T19	E20	I21	C22	V23	E24	S25	Y26	K27	K28	C29	Y30	L30	Q31	A32	A33	D33	D33	V34	P35	P36	E37	K38	R39	V42	G43	I44	Q45	A46	A47	K49	K49	F48	H108	K109	E110	D111	F52	P53	I54	E55	E56	G57	D58	K59	G60	M61
G62	G63	L64	V65	L66	D67	F68	L69	I9	R10	E11	V12	I13	P14	L15	P16	F17	L18	T19	E20	I21	C22	V23	E24	S25	Y26	K27	K28	C29	Y30	L30	Q31	A32	A33	D33	D33	V34	P35	P36	E37	K38	R39	V42	G43	I44	Q45	A46	A47	K49	K49	F48	H108	K109	E110	D111	F52	P53	I54	E55	E56	G57	D58	K59	G60	M61	
T122	E123	D124	G125	S126	L127	I128	I129	N130	G131	R134	L135	I136	V137	S138	P144	G145	V146	Y147	F148	T149	S150	D151	P152	A153	R154	L155	Y158	I159	L160	S161	I162	I163	P164	L165	P166	K167	R168	R168	L168	L168	I101	H101	H102	K103	D104	Q105	K106	R107	F108	K109	E110	D111	F112	D113	L114	E115	E116	H117	L118	P119	L120	T183			
M184	K185	L186	M187	K190	S191	F191	F192	L193	V194	L195	L196	L197	R198	V199	L200	T206	L207	V208	R209	E210	L211	S212	T213	Y214	G215	D216	L217	V218	G219	G220	L221	L222	D223	E224	A225	V226	L227	A228	M229	R230	P231	P231	E232	E233	A234	R235	R235	V236	R237	L238	F239	T240	L241	L242	V181	L182	L244								
G246	D246	P248	K249	K250	D251	K252	L253	L254	A255	L256	L257	E258	G259	L260	L261	Y262	D263	P264	K265	L266	G270	G273	R274	Y275	K276	A277	E278	L281	G282	V283	G284	L285	S286	G287	R288	T289	L290	V291	R292	D295	F298	K299	D300	E301	G302	F303	F303	L304	P305	T306	L307	R308													
Y309	L310	F311	A312	L313	T314	A315	G316	L317	P318	G319	H320	E321	V322	D323	R324	I325	D326	H327	L328	G329	N330	R331	F332	R333	R334	T335	G336	G337	P338	N339	P340	L341	M342	A343	D344	F345	R346	G347	L348	A349	R350	L351	A352	R353	V354	V355	R356	E357	R358	M359	V360	M361	G362	S363	P364	L367	T368	P369							
A370	K371	V372	N374	Y375	R376	P377	L378	E379	A380	A381	L382	R383	E384	F385	F386	F387	N388	L391	L451	I452	T453	S454	K395	D396	E397	T398	E399	P400	N399	L401	S402	S403	L404	R405	H406	K407	R408	R409	I410	S411	R350	L413	G414	P415	G416	G417	L418	T419	R420	E421	A423	G424	F425	M426	V427	R428	D429	E430							
H431	R432	T433	H434	Y435	G436	R437	I438	C439	P440	V441	E442	T443	P444	E445	G446	A447	N448	I449	G450	L451	I452	T453	S454	L455	A456	A457	E458	E520	P521	L460	V461	D462	A463	L464	G465	F466	R468	T469	P470	S471	R472	A473	V474	K475	M476	G477	F478	V479	T480	E481	V483	V484	L546	L547	M486	T487	A488	E489	H552						
E491	D492	R493	Y494	T495	L496	A497	Q498	A499	N500	T501	P502	L503	R507	A508	V509	P570	L571	I572	R573	A574	V514	Q575	A576	P577	V578	E579	M580	T581	G582	L583	E584	E585	R586	V587	L588	E520	E528	V529	E530	F531	M532	D533	V534	F535	F540	S541	L542	M543	T544	N545	G546	L547	L548	L549	L550	E551	H552								
D553	D554	A555	N556	R557	L558	M559	M560	G561	M564	G565	Q566	A568	V569	Q570	P570	L571	I572	R573	A574	V514	Q575	A576	P577	V578	E579	M580	T581	G582	L583	E584	E585	R586	V587	L588	E520	E528	V529	E530	F531	M532	D533	V534	F535	F540	S541	L542	M543	T544	N545	G546	L547	L548	L549	L550	E551	H552									
E616	D617	G618	R619	N620	V621	H623	P624	L625	R626	G627	V628	A629	R630	S631	N632	Q633	G634	T635	A636	F637	D638	Q1639	R640	P641	R642	V643	R644	V645	L646	L647	L648	D653	L654	L655	A656	D657	G658	P659	A660	S661	T662	E663	G664	F665	L666	L668	G669	Q670	M671	V672	L673	T674	V675	L676	M677	P678	F679								
D680	G681	Y682	N683	F684	E685	D686	A687	L688	V689	I690	S691	Y628	E692	E693	L694	L695	K696	G697	T698	Y700	T701	S702	R703	H704	I705	I706	R707	L710	E711	A712	R713	D714	L715	L716	K717	L718	P719	E720	R721	I722	T723	E663	G664	F665	L666	L668	G669	Q670	M671	V672	L673	T674	V675	L676	M677	P678	F679								
I742	V743	R744	I745	G746	A747	E748	V749	K750	D753	L754	I755	L756	G757	R758	T759	S760	F761	K762	Y700	T701	S702	R703	H704	I705	I706	R707	L710	E711	A712	R713	D714	L715	L716	K717	L718	P719	E720	R721	I722	T723	E663	G664	F665	L666	L668	G669	Q670	M671	V672	L673	T674	V675	L676	M677	P678	F679									
S768	R769	E770	T771	L772	L773	L774	R775	S776	I777	F778	G779	H780	K781	A782	R783	D784	V785	D786	D787	T788	S789	L790	R791	V792	P793	P794	G795	E796	G797	L798	I799	V800	V801	R802	G803	L804	R791	V792	P793	P794	G795	E796	G797	L798	I799	V800	V801	R802	G803	L804															

R805	R806	R807	D810	P811	G812	E814	L815	K816	P817	G818	V819	R820	E821	R822	V823	R824	V825	F826	V827	A828	R831	K832	L833	Q834	V835	G836	D837	K838	L839	R900	N841	R842	H843	G844	N845	K846	G847	V848	A909	T810	K851	L852	L853	P854	K855	L856	D857	M858	L859	E920	L861	A921	F922	D863	G864	L924	V925	F926
V867	D868	V869	I870	L871	N872	P873	L874	G875	V876	P877	S878	R879	M880	N881	G883	Q884	L885	L886	E887	T888	H889	L890	G891	L892	A893	G894	F895	V896	L897	E898	Q899	R900	K964	I902	S903	P904	V905	L906	G907	G908	A909	T910	E911	P912	E913	L914	K915	E916	L917	E981	P982	E920	A921	F922	N923	L924	V925	F926
G927	K928	R929	Q930	G931	E932	G933	F934	G935	V936	D937	K938	R939	E940	V943	L944	A945	R946	A947	K949	T888	L950	G951	L952	V953	S954	S958	F959	E960	E961	Q962	L963	K964	E965	L966	F967	D968	L969	G970	K971	G972	V973	L974	Y975	D976	G977	K978	T979	G980	E981	P982	E920	A921	F922	N923	L924	V925	F926	
G990	Q991	M992	I994	M995	K996	L997	Y998	H999	M1000	V1001	L1002	E1003	K1004	M1005	H1006	R1007	L1008	S1009	T1010	G1011	P1012	Y1013	S1014	L1035	I1016	T1017	Q1018	Q1019	P1020	L1021	G1022	K1023	K1024	A1025	Q1026	F1027	G1028	G1029	Q1030	R1031	W1032	F1033	E1034	M1035	E1036	V1037	W1038	A1039	L1040	E1041	A1042	Y1043	G1044	A1045	T1048	L1049	Q1050	
E1051	M1052	L1053	T1054	K1055	S1057	D1058	I1059	I1060	E1061	G1062	L1063	A1066	Q1068	A1069	I1070	I1071	K1072	G1073	E1074	D1075	V1076	F1077	E1078	P1079	S1080	V1081	P1082	L1083	S1084	F1085	V1087	L1088	V1089	A1090	E1091	L1092	Q1093	A1094	L1095	A1096	L1097	D1098	V1099	Q1100	T1101	L1102	D1103	E1104	K1105	D1106	M1107	P1108	V1109	D1110	V1111			
F1112	E1113	G1114	L1115	ALA	SER	LYS	ARG																																																			

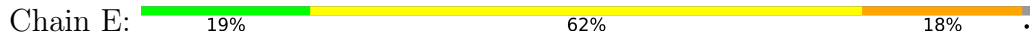
Molecule 3: DNA-DIRECTED RNA POLYMERASE



RET	LYS	R3	E4	V6	R6	K7	R8	V9	I10	A11	L12	P15	R19	S20	W21	S22	V23	G24	E25	V26	E27	K28	P29	E30	T31	ILE	ASN	TVR	ARG	THR	LEU	PRO	GLU	ARG	ASP	GLY	PHE	GLY	PRO	ILE	LYS	ASP	ARG	ASP	GLY	LEU	PHE	GLY	PRO	ILE	LYS	ASP	TYR	GLU	CYS	ALA	CYS	GLY	LYS	TYR	V126
LYS	ARG	GLN	ARG	PHE	E69	A70	K71	V72	I73	R75	C76	A77	V78	E79	W80	R81	S83	L84	V85	R86	R87	Y88	H90	A91	H92	I93	E94	L95	A96	L97	P98	A100	H103	F104	V105	K106	D107	V108	S110	K111	I112	A113	T114	L115	L116	D117	S119	A120	T121	A456	H456	G457	A458	E459							
L127	Y128	F129	M130	K131	Y132	I133	V134	L135	D136	P137	D143	A144	V145	P146	K149	R150	Q151	L152	L153	E154	D155	Y156	X30	X60	X70	X80	X90	L100	X200	X210	X220	X230	X240	X250	X300	X310	X320	X350	X360	X390	X400	X410	X420	X430	X440	D453	A454	A455	H456	G457	A458	E459									
A460	L461	Q462	E463	L464	L465	K466	E467	L468	D469	L470	E471	K472	L473	E474	E480	A481	K482	H483	P484	S485	R486	A487	R488	R489	A490	K491	A492	R493	K494	R495	A496	E497	V498	V499	R500	A501	F502	L503	D504	S505	G506	M507	R508	P509	E510	M511	A512	W513	L514	E515	A516	V517	P518	V519	L520	P521	F522	A458	E459		
LEU	ARG	PRO	MET	VAL	GLN	VAL	ASP	GLY	GLY	ARG	PHE	A536	S538	D539	L540	N541	D542	L543	V544	R545	R546	L547	V548	N551	N552	R553	L554	K555	K556	L557	A558	Q559	Q560	G561	A562	P563	E564	L565	L566	A567	R568	M569	E570	K571	R572	N573	L574	Q575	E576	A577	V578	D579	A580	V581	L582	D583	N584				
G585	R586	R587	G588	S589	P590	E597	R598	M600	L601	R601	S602	L603	V604	D605	L606	L607	S608	G609	K610	Q611	G612	R613	F614	R615	Q616	N617	L618	L619	Q620	K621	R622	V623	D624	E625	Q626	G627	R628	S629	V630	L631	V632	V633	G634	P635	Q636	L637	K638	V639	V700	H640	Q641	C642	G643	R704	A705	L644	P645	P646	K647	M648	R710
E651	L652	Q653	K654	P655	G656	L657	L658	K659	L660	M661	E662	K664	A665	F666	A667	P668	N669	V670	K671	A672	A673	R674	S675	M676	L677	F678	R679	D680	F681	R682	L683	D684	E685	E686	V687	V688	D689	A689	L691	E692	L693	E693	V694	I695	H696	G697	A757	E758	A759	V700	L701	L702	N703	R704	A705	L706	P707	T707	L708	H709	R710
L711	G712	I713	Q714	F715	L716	Q717	F718	V719	L720	W721	E722	G723	Q724	S725	I726	Q727	L728	H729	P730	L731	V732	C733	Q734	E735	F736	M737	A738	F739	D740	D741	G742	D743	Q744	N745	A746	V747	H748	V749	L751	L752	S752	S753	F754	A755	Q756	A757	E758	A759	R760	I761	L702	N703	R704	A705	L706	P707	T707	L708	H709	R710	
S771	F772	A773	S774	G775	E776	P777	L778	A779	L780	V781	S782	R783	D784	I785	L786	L787	L788	H789	V790	L791	I792	T793	Q794	V795	R796	G797	F798	R799	K900	A805	F806	A807	T808	P809	E810	E811	A814	A815	Y816	E817	V821	A822	L823	N824	A825	P826	I827	V828	V829	A830	G831	S785	R832	E833	R834	S835	V836				

G837	R838	R839	K840	R845	P846	D847	E848	E849	A849	R850	L851	R852	V853	A854	H855	G856	L857	L858	D859	L860	R861	D862	T863	G864	T865	R866	R867	L869	G870	R871	R872	L873	E874	T875	S876	P877	G878	R879	L880	L881	F882	R883	L884	L885	V886	G887	L888	D889	V890	V891	V892	D893	A894	V895	L896	D897	E898	E899	K900	M901	D902	D903	A904	P905	R906	K907	K908	N909	S910	L911	R912	V913	L914	V915	Y916	Y917	L918	A919	L920	R921	L922	T923	G924	E925	K926	T927	L930	L931	D932	A933	L934	K935	Y936	Y937	G938	F939	T940	L941	G946	L947	T948	L949	V950	M951	D952	D953	A954	V955	L956	E957	E958	K959	V960	K961	L962	Y963	L964	E965	E966	A967	D968	R969	K970	L971	R972	R973	Q974	E975	C976	K977	Y978	G979	G980	L983	T984	D985	R988	L989	L990	R991	Y992	T993	L995	A996	T999	T1000	E1001	Y1002	V1003	V1004	Q1005	A1006	V1007	L1008	E1009	F1010	Y1011	N1012	F1013	E1014	M1015	P1016	D1017	R1018	P1019	L1020	P1021	E1022	V1023	T1024	A1025	G1027	A1028	R1029	M1030	N1031	F1032	Q1033	Q1034	L1035	R1036	Q1037	L1038	L1039	C1040	C1041	M1042	G1043	G1044	M1045	Q1046	P1047	P1048	S1049	Q1050	E1051	Y989	T1052	F1053	E1054	P1056	Y1057	L1058	S1059	S1060	P1061	E1063	G1064	L1065	T1066	V1067	L1068	E1069	Y1070	F1071	L1072	S1073	H1074	G1075	A1077	R1078	K1079	G1080	G1081	L1082	D1083	T1084	A1085	L1086	R1087	T1088	A1089	D1090	S1091	Y1092	Y1093	L1094	T1095	R1096	L1097	L1098	L1099	E1100	V1101	A1102	H1103	E1104	L1105	V1106	V1107	R1108	E1109	A1110	D1111	C1112	G1113	T1114	Y1117	L1118	S1119	L1122	F1123	E1124	M1125	D1126	E1127	V1128	T1129	R1130	L1131	L1132	R1133	L1134	R1135	L1136	S1137	V1200	D1139	I1140	E1141	S1142	L1143	Y1205	G1206	L1144	Y1207	D1208	L1209	S1210	L1149	L1211	R1212	P1214	V1215	S1216	I1217	G1218	E1219	A1220	V1221	G1222	E1223	V1224	A1225	A1226	S1228	E1231	P1232	G1233	T1234	Q1235	L1236	T1237	M1238	R1239	T1240	PHE	HIS	THR	GLY	VAL	ALA	VAL	G1249	T1250	D1251	T1252	Q1253	Q1254	Q1255	G1256	L1257	R1258	R1259	E1261	A1265	L1262	F1263	E1264	H1265	R1266	R1267	R1268	K1269	A1270	L1271	A1272	V1273	L1274	S1275	V1276	A1277	D1278	G1279	L1280	V1281	A1282	I1283	L1290	S1291	V1292	F1293	V1294	F1299	K1300	E1301	E1302	Y1303	K1304	L1305	P1306	K1307	L1308	L1310	L1311	L1312	V1313	K1314	D1315	G1316	D1317	Y1318	V1319	E1320	A1321	Q1322	Q1323	L1324	L1325	T1326	R1327	G1328	A1329	Q1330	L1331	P1332	H1333	Q1334	L1335	D1336	E1337	A1338	K1339	G1340	P1341	E1342	A1343	V1344	A1345	R1346	Y1347	L1348	V1349	D1350	E1351	I1352	Q1353	K1354	V1355	L1356	R1357	V1361	K1362	L1363	H1364	D1365	A1428	L1429	S1430	T1431	S1432	S1433	V1434	L1435	S1436	A1437	A1438	S1439	F1440	Q1441	M1442	T1443	T1444	L1447	E1448	A1449	A1450	A1451	T1452	A1453	G1454	K1455	K1456	D1457	E1458	L1459	I1460	G1461	L1462	K1463	L1464	M1465	P1341	E1342	A1343	V1344	A1345	R1346	Y1347	L1348	V1349	D1350	E1351	I1352	Q1353	K1354	V1355	L1356	R1357	V1361	K1362	L1363	H1364	D1365	A1428	L1429	S1430	T1431	S1432	S1433	V1434	L1435	S1436	A1437	A1438	S1439	F1440	Q1441	M1442	T1443	T1444	L1447	E1448	A1449	A1450	A1451	T1452	A1453	G1454	K1455	K1456	D1457	E1458	L1459	I1460	G1461	L1462	K1463	L1464	M1465
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● Molecule 4: DNA-DIRECTED RNA POLYMERASE



H1	A2	E3	P4	G5	T6	D7	P1473	L9	F10	G11	T1476	G1477	S1478	D1479	F1480	V1481	R1482	F1483	T1484	Q1485	V1486	V22	K25	A27	Q28	Q29	L30	L31	R32	H33	R34	F35	N37	T38	V39	L40	E41	E42	E43	E44	K47	N48	R49	T50	L51	E52	G53	L54	Y55	D56	D57	P58	H59	A60	T62	M63	A64	R65	K66	G67	L68	L69	T70	G71	R72	L73	F74	F75	G76	E77	N78	L79	V80	P81	E82	D83	R84	L85	Q86	H89	L92	Y93	P94	T95	E98	ALA
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4 Data and refinement statistics

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

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

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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

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

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

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

All (2) bond length outliers are listed below:

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

All (28) bond angle outliers are listed below:

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

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

There are no chirality outliers.

All (5) planarity outliers are listed below:

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

5.2 Too-close contacts [i](#)

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

the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1741	0	1747	348	0
1	B	1761	0	1754	316	0
2	C	8508	0	8421	1817	0
3	D	8502	0	8002	1671	0
4	E	719	0	685	138	0
5	C	59	0	56	6	0
6	D	1	0	0	0	0
7	D	1	0	0	0	0
All	All	21292	0	20665	4041	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 96.

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

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

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

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

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

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

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1119:SER:HB3	3:D:1185:GLU:HB3	1.62	0.81
2:C:892:LEU:H	2:C:892:LEU:HD22	1.46	0.81
3:D:582:ILE:O	3:D:584:ASN:N	2.14	0.81
2:C:376:ARG:N	2:C:377:PRO:HD2	1.95	0.81
3:D:1037:GLN:HG3	3:D:1042:ARG:HG2	1.63	0.81
3:D:1403:LEU:O	3:D:1407:LEU:HB2	1.81	0.81
1:A:10:VAL:HB	1:A:26:GLU:CG	2.11	0.81
1:A:180:GLN:HE21	2:C:934:PHE:HB3	1.45	0.81
1:B:109:VAL:O	1:B:129:ILE:HB	1.80	0.81
2:C:467:ILE:CG2	2:C:484:VAL:HG21	2.11	0.81
2:C:589:ARG:HH21	2:C:654:LEU:HD12	1.45	0.81
3:D:1459:LEU:HB3	3:D:1465:ASN:HD22	1.46	0.81
2:C:1053:LEU:HD12	3:D:621:LYS:HD2	1.63	0.80
3:D:882:PHE:HA	3:D:885:ILE:HD12	1.63	0.80
3:D:1258:ARG:CZ	3:D:1262:LEU:HD11	2.11	0.80
2:C:136:ILE:HG21	2:C:336:VAL:HG13	1.60	0.80
3:D:969:ARG:HG3	3:D:970:LYS:N	1.95	0.80
2:C:969:LEU:HD11	3:D:952:ASP:H	1.42	0.80
1:A:158:ILE:HG23	1:A:159:LYS:H	1.45	0.80
1:B:26:GLU:HB3	1:B:27:PRO:CD	2.11	0.80
1:B:41:ARG:HD3	1:B:42:ARG:N	1.96	0.80
2:C:216:ASP:O	2:C:218:VAL:HG23	1.80	0.80
2:C:671:ASN:HA	2:C:993:PHE:HA	1.62	0.80
2:C:889:HIS:HE1	3:D:951:ILE:H	1.26	0.80
3:D:968:ASP:O	3:D:970:LYS:N	2.14	0.80
2:C:613:VAL:HG12	2:C:614:ARG:N	1.96	0.80
3:D:795:VAL:HG13	3:D:864:VAL:CG2	2.10	0.80
2:C:580:MET:HB2	2:C:584:GLU:OE1	1.81	0.80
2:C:261:LEU:CG	2:C:263:ASP:HB3	2.12	0.80
2:C:572:ILE:O	2:C:573:ARG:HB2	1.81	0.80
2:C:84:ARG:HA	2:C:131:GLY:HA2	1.64	0.80
2:C:108:ILE:HD13	2:C:368:THR:HG22	1.64	0.80
2:C:654:LEU:O	2:C:655:LEU:HB3	1.81	0.80
3:D:881:LEU:O	3:D:885:ILE:HG13	1.82	0.80
1:A:24:VAL:HG12	1:A:25:LEU:O	1.82	0.80
2:C:1005:MET:HB2	3:D:629:SER:HB2	1.63	0.80
3:D:1062:ARG:HH11	3:D:1062:ARG:HG3	1.45	0.80
3:D:1086:LEU:HD13	3:D:1238:MET:HB2	1.63	0.80
3:D:1351:GLU:OE1	3:D:1354:LYS:HD2	1.82	0.80
2:C:9:ILE:HG22	2:C:10:ARG:H	1.47	0.80
3:D:890:VAL:CG1	3:D:922:LEU:HD13	2.11	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1067:VAL:HG12	3:D:1069:GLU:HB2	1.64	0.80
2:C:149:THR:OG1	2:C:323:ASP:HA	1.82	0.79
2:C:460:ARG:NH1	2:C:464:LEU:HD21	1.97	0.79
2:C:631:SER:HB2	2:C:635:THR:N	1.96	0.79
3:D:772:PRO:HD3	3:D:778:LEU:H	1.47	0.79
3:D:886:VAL:CG1	3:D:900:ILE:HD11	2.12	0.79
1:B:38:ASN:HB3	1:B:39:PRO:HD3	1.63	0.79
2:C:147:TYR:O	2:C:322:VAL:HG13	1.83	0.79
3:D:876:SER:H	3:D:879:ARG:CG	1.95	0.79
2:C:290:LEU:HD12	2:C:291:VAL:H	1.45	0.79
3:D:1378:TYR:HE2	3:D:1431:THR:HB	1.45	0.79
2:C:149:THR:HB	2:C:158:TYR:HE1	1.46	0.79
2:C:440:PRO:HG3	2:C:454:SER:H	1.46	0.79
2:C:921:ALA:H	2:C:924:LEU:HD21	1.47	0.79
3:D:1459:LEU:CD1	3:D:1470:ARG:HH11	1.96	0.79
2:C:140:ILE:CG2	2:C:333:ILE:HG12	2.12	0.79
2:C:474:VAL:HG13	2:C:529:VAL:O	1.83	0.79
3:D:113:ALA:HB2	3:D:495:ARG:NH2	1.98	0.79
3:D:1046:GLN:HA	3:D:1052:THR:HA	1.64	0.79
1:A:163:ASN:O	1:A:165:ILE:HG23	1.82	0.79
2:C:478:VAL:O	2:C:479:VAL:HG13	1.81	0.79
2:C:613:VAL:HG11	2:C:619:ARG:CG	2.12	0.79
2:C:452:ILE:HG21	5:C:1640:RFP:O11	1.82	0.79
2:C:807:ARG:O	2:C:810:ASP:HB2	1.83	0.79
3:D:721:VAL:HG12	3:D:722:GLU:N	1.98	0.79
2:C:839:LEU:HD12	2:C:994:ILE:CG2	2.12	0.79
3:D:1483:PHE:CZ	4:E:18:ARG:HG3	2.17	0.79
2:C:531:PHE:O	2:C:532:MET:HB2	1.82	0.79
2:C:163:ILE:HG22	2:C:164:PRO:HD2	1.65	0.78
2:C:577:PRO:HG2	2:C:580:MET:HB3	1.65	0.78
3:D:728:LEU:HD22	3:D:745:MET:CE	2.13	0.78
3:D:1207:TYR:HA	3:D:1213:ARG:O	1.82	0.78
2:C:873:PRO:HG2	2:C:874:LEU:H	1.46	0.78
2:C:862:PRO:HA	2:C:975:TYR:HE1	1.48	0.78
1:A:222:LEU:HD12	1:B:215:VAL:HG13	1.63	0.78
2:C:399:ASN:C	2:C:399:ASN:ND2	2.36	0.78
2:C:690:ILE:HB	2:C:852:ILE:CG2	2.08	0.78
2:C:952:LEU:HD23	2:C:966:LEU:HD11	1.65	0.78
3:D:1160:LEU:HD22	3:D:1164:ARG:NH1	1.98	0.78
3:D:1196:THR:HB	3:D:1199:GLY:O	1.84	0.78
1:B:44:LEU:O	1:B:174:VAL:HG21	1.83	0.78

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

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

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

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

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1356:TYR:HB3	3:D:1361:VAL:HB	1.70	0.71
2:C:775:ARG:HA	2:C:780:GLU:CB	2.20	0.71
2:C:1012:PRO:CB	2:C:1023:GLY:HA3	2.21	0.71
3:D:756:GLN:O	3:D:760:ARG:HG2	1.90	0.71
3:D:1443:THR:CG2	3:D:1447:LEU:HD22	2.20	0.71
1:A:10:VAL:H	1:A:26:GLU:HB2	1.55	0.71
1:B:174:VAL:HA	1:B:201:THR:HG22	1.72	0.71
2:C:262:ALA:CB	2:C:266:ARG:HD3	2.08	0.71
2:C:921:ALA:N	2:C:924:LEU:HD21	2.05	0.71
2:C:940:GLU:HG2	2:C:973:VAL:HG21	1.73	0.71
3:D:564:GLU:HG3	3:D:568:ARG:HE	1.55	0.71
1:B:82:LEU:HD21	1:B:142:VAL:HG21	1.72	0.71
2:C:166:PRO:HB3	2:C:417:GLY:H	1.56	0.71
2:C:399:ASN:HD21	2:C:401:LEU:HB3	1.56	0.71
2:C:523:ILE:O	2:C:525:ALA:N	2.23	0.71
2:C:525:ALA:CB	2:C:526:PRO:HD2	2.20	0.71
2:C:570:PRO:HB3	2:C:659:PRO:O	1.90	0.71
3:D:705:ALA:HB3	3:D:706:PRO:CD	2.21	0.71
3:D:728:LEU:HD13	3:D:745:MET:HE3	1.73	0.71
4:E:40:LEU:HD21	4:E:67:GLU:HA	1.72	0.71
1:A:75:VAL:HA	1:A:78:ILE:HD12	1.71	0.71
2:C:51:THR:OG1	2:C:348:LEU:HD23	1.91	0.71
2:C:910:THR:HG22	2:C:912:PRO:HD2	1.72	0.71
3:D:691:LEU:HD12	3:D:691:LEU:N	1.98	0.71
3:D:899:LEU:HD13	3:D:899:LEU:N	2.06	0.71
3:D:1486:VAL:HG21	4:E:25:LYS:HZ1	1.55	0.71
1:A:110:ARG:HB2	1:A:126:ASP:O	1.90	0.71
1:B:213:GLN:O	1:B:217:ILE:HG13	1.90	0.71
3:D:688:TRP:O	3:D:690:ALA:N	2.24	0.71
3:D:699:VAL:CB	3:D:716:PHE:O	2.36	0.71
2:C:144:PRO:HA	2:C:162:ILE:CG2	2.21	0.71
2:C:877:PRO:O	2:C:881:ASN:N	2.22	0.71
2:C:939:ARG:HD3	2:C:975:TYR:HE2	1.55	0.71
2:C:1066:ALA:O	2:C:1070:ILE:HD13	1.90	0.71
3:D:486:ARG:HG3	3:D:487:ALA:H	1.55	0.71
3:D:586:ARG:O	3:D:588:GLY:N	2.23	0.71
1:A:47:SER:O	1:A:48:ILE:HG13	1.88	0.70
1:A:112:VAL:O	1:A:114:PHE:N	2.24	0.70
2:C:467:ILE:HG21	2:C:484:VAL:HG21	1.71	0.70
2:C:630:ARG:HA	2:C:705:ILE:HD13	1.73	0.70
3:D:460:ALA:O	3:D:463:GLU:HB3	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1311:LEU:HB2	3:D:1323:GLN:OE1	1.91	0.70
1:A:85:LEU:HA	1:A:124:ASN:HD21	1.55	0.70
1:A:106:PRO:O	1:A:107:LYS:HB3	1.91	0.70
1:B:26:GLU:CB	1:B:27:PRO:HD3	2.20	0.70
2:C:196:LEU:O	2:C:200:LEU:HG	1.91	0.70
2:C:564:MET:HG3	2:C:997:LEU:HD11	1.72	0.70
3:D:571:LYS:C	3:D:573:MET:H	1.94	0.70
3:D:631:ILE:CD1	3:D:745:MET:HE2	2.21	0.70
1:A:30:ARG:HD2	1:A:191:ASP:CB	2.19	0.70
3:D:645:PRO:HD2	3:D:648:MET:SD	2.30	0.70
3:D:899:LEU:HD11	3:D:921:ARG:HD2	1.73	0.70
3:D:1402:ALA:CB	3:D:1415:VAL:HG11	2.22	0.70
3:D:1457:ASP:CG	3:D:1459:LEU:HD23	2.11	0.70
2:C:613:VAL:HG22	2:C:620:LEU:C	2.12	0.70
2:C:801:VAL:HG21	2:C:828:ALA:HB2	1.74	0.70
2:C:922:PHE:HA	2:C:925:TYR:HB3	1.73	0.70
2:C:943:VAL:HG21	2:C:973:VAL:HG13	1.73	0.70
3:D:502:PHE:HE2	3:D:509:PRO:HG3	1.56	0.70
3:D:1281:VAL:HG12	3:D:1282:ARG:H	1.55	0.70
3:D:1432:LYS:HG3	3:D:1433:SER:H	1.55	0.70
2:C:90:TYR:CE2	2:C:120:LEU:HB2	2.27	0.70
3:D:590:PRO:O	3:D:600:LEU:HD11	1.92	0.70
3:D:1145:TYR:C	3:D:1145:TYR:CD2	2.63	0.70
3:D:1273:VAL:CG2	3:D:1324:PRO:HG3	2.18	0.70
2:C:841:ASN:C	2:C:841:ASN:HD22	1.94	0.70
1:A:30:ARG:NH1	1:A:191:ASP:HB2	2.06	0.70
2:C:148:PHE:CZ	2:C:309:TYR:HD2	2.10	0.70
2:C:197:LEU:HD22	2:C:202:TYR:HD1	1.54	0.70
2:C:1099:VAL:HG22	3:D:10:ILE:HD12	1.73	0.70
3:D:688:TRP:C	3:D:690:ALA:H	1.94	0.70
2:C:142:ARG:HG2	2:C:147:TYR:CZ	2.26	0.70
2:C:874:LEU:HD13	3:D:787:LEU:HD22	1.73	0.70
3:D:890:VAL:CG1	3:D:891:GLY:H	1.97	0.70
3:D:890:VAL:HG13	3:D:926:LYS:HE2	1.74	0.70
3:D:1104:GLU:HG2	3:D:1104:GLU:O	1.91	0.70
3:D:1265:ALA:O	3:D:1266:ARG:HG3	1.91	0.70
1:A:66:SER:HB2	1:A:75:VAL:HG21	1.72	0.70
1:B:25:LEU:HD11	1:B:28:LEU:CD2	2.22	0.70
2:C:565:GLN:HG3	2:C:995:MET:CE	2.21	0.70
3:D:1211:MET:CE	4:E:16:LYS:HD2	2.21	0.70
3:D:1431:THR:O	3:D:1432:LYS:HG2	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:291:VAL:HG11	2:C:299:LYS:HE2	1.74	0.70
2:C:674:VAL:HG22	2:C:675:ALA:N	2.07	0.70
4:E:26:ARG:NE	4:E:67:GLU:OE2	2.25	0.70
2:C:588:VAL:HG23	2:C:666:LEU:HB2	1.74	0.69
3:D:657:LEU:O	3:D:660:LYS:N	2.24	0.69
3:D:1019:PRO:CB	3:D:1022:VAL:HG23	2.19	0.69
3:D:1403:LEU:HG	3:D:1415:VAL:HB	1.73	0.69
1:B:25:LEU:HD11	1:B:28:LEU:CG	2.23	0.69
1:B:199:ILE:HG23	1:B:201:THR:CG2	2.22	0.69
2:C:177:GLU:HG2	2:C:181:VAL:H	1.55	0.69
2:C:498:GLN:H	2:C:502:PRO:HD3	1.56	0.69
2:C:862:PRO:HA	2:C:975:TYR:CE1	2.27	0.69
2:C:950:LEU:O	3:D:1018:ASN:OD1	2.10	0.69
3:D:587:ARG:HG2	3:D:588:GLY:N	2.07	0.69
3:D:836:VAL:HG11	3:D:858:LEU:HG	1.72	0.69
2:C:312:ALA:HB1	2:C:318:PRO:CG	2.22	0.69
2:C:391:LEU:HD22	2:C:415:PRO:HD2	1.74	0.69
2:C:500:ASN:C	2:C:502:PRO:HD2	2.12	0.69
2:C:536:PRO:HB3	3:D:1068:LEU:HD11	1.75	0.69
3:D:1107:VAL:HG21	3:D:1215:VAL:CG1	2.21	0.69
3:D:1202:GLN:O	3:D:1203:LYS:HB2	1.92	0.69
1:A:206:THR:HB	1:A:209:GLU:HG3	1.75	0.69
2:C:666:LEU:HD11	2:C:668:LEU:CD2	2.22	0.69
1:A:109:VAL:O	1:A:129:ILE:HB	1.93	0.69
2:C:142:ARG:HA	2:C:330:ASN:O	1.91	0.69
2:C:299:LYS:HG3	2:C:299:LYS:O	1.91	0.69
3:D:701:LEU:HD12	3:D:715:ALA:HB2	1.75	0.69
3:D:1108:ARG:O	3:D:1109:GLU:HG2	1.92	0.69
2:C:352:ALA:O	2:C:355:VAL:HG12	1.92	0.69
3:D:552:ASN:HA	3:D:555:LYS:CB	2.22	0.69
3:D:1145:TYR:HD2	3:D:1146:GLY:N	1.91	0.69
1:A:6:LEU:C	1:A:8:ALA:H	1.94	0.69
1:B:179:PHE:HB2	1:B:197:LEU:HD12	1.73	0.69
2:C:889:HIS:C	2:C:891:GLY:H	1.95	0.69
3:D:1270:ALA:CB	3:D:1328:GLY:HA3	2.22	0.69
2:C:126:SER:HB3	2:C:135:VAL:HG13	1.73	0.69
2:C:726:ILE:HD12	2:C:726:ILE:N	2.07	0.69
2:C:796:GLU:HG2	3:D:681:ARG:HH12	1.57	0.69
2:C:1052:MET:HG2	3:D:623:VAL:HG22	1.75	0.69
3:D:42(U):UNK:O	3:D:43(U):UNK:O	2.10	0.69
3:D:654:LYS:HB3	3:D:655:PRO:HD3	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1144:LEU:O	3:D:1147:ARG:HG2	1.92	0.69
4:E:59:ASN:ND2	4:E:61:VAL:HG23	2.08	0.69
1:B:59:GLU:O	1:B:60:ASP:HB2	1.93	0.69
2:C:42:VAL:N	2:C:46:ALA:HB2	2.08	0.69
2:C:323:ASP:C	2:C:325:ILE:N	2.47	0.69
2:C:333:ILE:HG21	2:C:460:ARG:HH22	1.58	0.69
2:C:413:LEU:HD21	2:C:451:LEU:HD13	1.74	0.69
2:C:683:ASN:HB2	2:C:872:ASN:HB2	1.74	0.69
2:C:1005:MET:HA	3:D:628:ARG:O	1.92	0.69
3:D:1147:ARG:HB3	3:D:1188:VAL:HG22	1.74	0.69
3:D:1251:ASP:C	3:D:1253:THR:H	1.95	0.69
2:C:469:THR:HB	2:C:482:GLU:O	1.93	0.69
3:D:456:MET:HG2	3:D:457:GLY:N	2.08	0.69
3:D:493:ARG:O	3:D:496:LEU:HB3	1.93	0.69
3:D:808:THR:N	3:D:809:PRO:HD3	2.08	0.69
3:D:886:VAL:HG11	3:D:900:ILE:CD1	2.18	0.69
3:D:1201:CYS:SG	3:D:1202:GLN:N	2.65	0.69
4:E:50:THR:O	4:E:52:GLU:N	2.26	0.69
1:A:72:LYS:HG3	2:C:607:ASP:OD1	1.92	0.68
1:B:44:LEU:HG	1:B:199:ILE:HD11	1.74	0.68
2:C:613:VAL:HG21	2:C:619:ARG:CG	2.17	0.68
3:D:115:LEU:C	3:D:117:ASP:H	1.93	0.68
3:D:1104:GLU:HB2	3:D:1461:GLY:HA2	1.75	0.68
4:E:30:LEU:C	4:E:32:ARG:H	1.97	0.68
1:A:105:GLY:N	1:A:136:GLY:HA3	2.07	0.68
2:C:211:LEU:HD22	2:C:304:LEU:HD12	1.75	0.68
2:C:837:ASP:OD2	2:C:837:ASP:N	2.24	0.68
3:D:1014:ASN:O	3:D:1015:TYR:CG	2.47	0.68
3:D:1105:ILE:HD11	3:D:1374:GLN:NE2	2.07	0.68
3:D:1160:LEU:HD22	3:D:1164:ARG:HH12	1.58	0.68
2:C:54:ILE:HD11	2:C:356:ARG:HB2	1.75	0.68
2:C:64:LEU:HD11	2:C:367:LEU:HD12	1.73	0.68
2:C:545:ASN:HB3	2:C:583:LEU:HD12	1.75	0.68
2:C:569:VAL:HG12	2:C:996:LYS:O	1.94	0.68
3:D:765:SER:HB2	3:D:769:LEU:HD12	1.76	0.68
2:C:139:GLN:NE2	2:C:334:ARG:HH21	1.91	0.68
2:C:759:THR:HB	2:C:785:VAL:CG1	2.23	0.68
2:C:881:ASN:N	2:C:881:ASN:ND2	2.42	0.68
2:C:1052:MET:C	2:C:1053:LEU:HD22	2.14	0.68
3:D:1062:ARG:HG3	3:D:1062:ARG:NH1	2.08	0.68
2:C:22:GLN:HE21	2:C:336:VAL:CG2	2.06	0.68

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:285:LEU:HD11	2:C:302:VAL:CG2	2.24	0.67
2:C:729:LEU:HB2	2:C:787:ASP:OD2	1.93	0.67
3:D:26:VAL:C	3:D:28:LYS:H	1.95	0.67
3:D:126:VAL:H	3:D:456:MET:HE2	1.58	0.67
3:D:502:PHE:CE1	3:D:1452:ILE:HG13	2.28	0.67
3:D:631:ILE:HG21	3:D:745:MET:HE2	1.77	0.67
3:D:709:HIS:HD2	3:D:711:LEU:HB2	1.59	0.67
3:D:1106:VAL:O	3:D:1108:ARG:HG3	1.94	0.67
4:E:29:GLN:N	4:E:32:ARG:HG2	2.10	0.67
1:B:16:GLN:HB3	1:B:19:HIS:O	1.93	0.67
1:B:26:GLU:O	1:B:28:LEU:HG	1.95	0.67
2:C:35:PRO:O	2:C:37:GLU:N	2.27	0.67
2:C:328:LEU:O	2:C:467:ILE:HG21	1.94	0.67
2:C:903:SER:HB2	2:C:909:ALA:HB2	1.77	0.67
3:D:578:VAL:O	3:D:582:ILE:HG13	1.94	0.67
3:D:957:PRO:HB2	3:D:959:GLU:HG2	1.76	0.67
3:D:1033:GLN:O	3:D:1036:ARG:HG2	1.94	0.67
3:D:1153:VAL:HG12	3:D:1153:VAL:O	1.95	0.67
3:D:1207:TYR:HA	3:D:1214:PRO:HA	1.76	0.67
1:B:72:LYS:N	1:B:131:THR:O	2.27	0.67
2:C:257:LEU:O	2:C:259:GLY:N	2.28	0.67
2:C:285:LEU:CD2	2:C:286:SER:H	2.06	0.67
2:C:605:LYS:HD3	2:C:607:ASP:HA	1.76	0.67
2:C:674:VAL:CG2	2:C:675:ALA:N	2.57	0.67
2:C:892:LEU:HD23	2:C:893:ALA:H	1.60	0.67
3:D:551:ASN:O	3:D:555:LYS:HB2	1.93	0.67
3:D:639:LEU:H	3:D:729:HIS:HD2	1.38	0.67
3:D:1327:ARG:NH1	3:D:1327:ARG:HB3	2.10	0.67
1:B:202:ASP:C	1:B:204:SER:H	1.98	0.67
2:C:246:ASP:HB3	2:C:247:PRO:CD	2.25	0.67
2:C:423:ALA:HA	2:C:427:VAL:HG21	1.77	0.67
2:C:159:ILE:O	2:C:173:ASP:HA	1.93	0.67
2:C:440:PRO:HD3	2:C:455:LEU:CA	2.24	0.67
2:C:579:VAL:HG21	2:C:887:GLU:HG3	1.75	0.67
3:D:612:GLY:O	3:D:614:PHE:N	2.27	0.67
4:E:48:MET:HG2	4:E:49:ARG:N	2.10	0.67
2:C:164:PRO:HD3	2:C:267:TYR:CD2	2.30	0.67
2:C:673:LEU:O	2:C:868:ASP:HB2	1.95	0.67
2:C:1034:GLU:CD	3:D:1096:ARG:HH12	1.98	0.67
3:D:465:LEU:HD22	3:D:512:MET:CE	2.25	0.67
3:D:553:ARG:O	3:D:554:LEU:HD23	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:699:VAL:HG22	3:D:756:GLN:NE2	2.10	0.67
3:D:709:HIS:CD2	3:D:711:LEU:HB2	2.30	0.67
3:D:947:ILE:HD12	3:D:1020:LEU:HB3	1.77	0.67
3:D:1125:MET:HB2	3:D:1132:LEU:HD23	1.75	0.67
4:E:82:GLU:O	4:E:85:LEU:HB3	1.95	0.67
1:B:76:VAL:HB	3:D:872:ARG:HH22	1.58	0.67
2:C:640:ARG:HH11	2:C:640:ARG:HG3	1.60	0.67
3:D:906:GLN:OE1	3:D:906:GLN:N	2.28	0.67
3:D:1043:GLY:O	3:D:1056:PRO:HA	1.95	0.67
3:D:1103:HIS:HB2	3:D:1462:LEU:HD12	1.77	0.67
1:A:44:LEU:HD13	1:A:199:ILE:HG13	1.75	0.67
1:A:180:GLN:HG3	2:C:934:PHE:CD2	2.30	0.67
1:B:25:LEU:C	1:B:25:LEU:HD12	2.15	0.67
1:B:30:ARG:HA	1:B:193:ASP:OD1	1.95	0.67
3:D:557:LEU:HD11	3:D:563:PRO:HD2	1.77	0.67
3:D:891:GLY:N	3:D:926:LYS:HZ1	1.92	0.67
1:A:194:LYS:O	1:A:196:THR:HG22	1.94	0.67
1:A:197:LEU:HD23	1:A:197:LEU:N	2.08	0.67
2:C:605:LYS:HA	2:C:612:ALA:CB	2.24	0.67
3:D:100:ALA:CB	3:D:575:GLN:HG3	2.25	0.67
3:D:795:VAL:HG13	3:D:864:VAL:HG22	1.77	0.67
3:D:1136:LYS:O	3:D:1138:SER:N	2.28	0.67
3:D:1252:ILE:C	3:D:1254:GLN:H	1.96	0.67
4:E:29:GLN:CA	4:E:32:ARG:HG2	2.25	0.67
2:C:882:LEU:N	2:C:882:LEU:CD2	2.59	0.66
3:D:705:ALA:CB	3:D:706:PRO:CD	2.73	0.66
3:D:760:ARG:HH12	4:E:59:ASN:HD21	1.42	0.66
3:D:777:PRO:HG2	3:D:912:LYS:HG3	1.76	0.66
3:D:947:ILE:HB	3:D:1020:LEU:HD22	1.76	0.66
4:E:25:LYS:HA	4:E:28:GLN:HB3	1.77	0.66
2:C:438:ILE:CD1	2:C:484:VAL:HG22	2.25	0.66
2:C:676:ILE:CG2	2:C:873:PRO:HB3	2.25	0.66
2:C:929:ARG:C	2:C:931:GLY:H	1.98	0.66
3:D:103:TRP:O	3:D:104:PHE:CB	2.43	0.66
3:D:510:GLU:O	3:D:512:MET:N	2.28	0.66
1:A:62:LEU:HD13	2:C:745:ILE:HB	1.78	0.66
2:C:266:ARG:NE	2:C:268:ASP:HB3	2.10	0.66
2:C:323:ASP:O	2:C:325:ILE:N	2.24	0.66
2:C:440:PRO:HG3	2:C:454:SER:N	2.10	0.66
2:C:755:LEU:CD1	2:C:790:LEU:HD23	2.23	0.66
2:C:876:VAL:HB	2:C:877:PRO:CD	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1018:GLN:OE1	2:C:1018:GLN:HA	1.95	0.66
3:D:764:LEU:HG	3:D:766:ALA:H	1.60	0.66
3:D:1304:LYS:HD3	3:D:1304:LYS:N	2.10	0.66
1:A:195:LEU:HD23	1:A:196:THR:N	2.11	0.66
1:B:25:LEU:CD1	1:B:28:LEU:HD21	2.25	0.66
2:C:148:PHE:O	2:C:149:THR:CB	2.42	0.66
2:C:710:ILE:HG12	2:C:790:LEU:HB2	1.77	0.66
3:D:91:ALA:O	3:D:517:VAL:HG13	1.96	0.66
3:D:108:VAL:N	3:D:511:TRP:HH2	1.94	0.66
3:D:849:ALA:O	3:D:853:VAL:HG23	1.95	0.66
3:D:1141:GLU:HA	3:D:1171:VAL:CG1	2.22	0.66
1:A:41:ARG:HG2	1:A:177:VAL:CG1	2.25	0.66
1:B:106:PRO:CA	1:B:133:GLU:HA	2.24	0.66
2:C:712:ALA:HB2	2:C:722:ILE:HD12	1.78	0.66
3:D:1486:VAL:HG21	4:E:25:LYS:NZ	2.11	0.66
2:C:881:ASN:N	2:C:881:ASN:HD22	1.92	0.66
2:C:922:PHE:C	2:C:924:LEU:N	2.49	0.66
3:D:546:ARG:HH12	3:D:589:SER:HB2	1.59	0.66
3:D:879:ARG:NH2	3:D:905:PRO:HD2	2.11	0.66
3:D:904:VAL:HG12	3:D:906:GLN:OE1	1.95	0.66
3:D:1236:LEU:HD11	3:D:1356:TYR:CE2	2.22	0.66
3:D:1396:GLU:O	3:D:1400:VAL:HG23	1.95	0.66
1:A:211:LEU:O	1:A:215:VAL:HG13	1.95	0.66
1:A:217:ILE:HG22	1:A:221:HIS:CD2	2.31	0.66
2:C:862:PRO:HG3	2:C:925:TYR:OH	1.96	0.66
2:C:892:LEU:CD2	2:C:892:LEU:N	2.54	0.66
2:C:953:VAL:HG11	2:C:962:GLN:HB3	1.78	0.66
2:C:839:LEU:HD12	2:C:994:ILE:HG22	1.77	0.66
3:D:91:ALA:HB3	3:D:518:PRO:HG2	1.76	0.66
3:D:1142:SER:O	3:D:1365:ASP:HB2	1.95	0.66
2:C:502:PRO:HB2	2:C:507:ARG:HH12	1.59	0.66
3:D:772:PRO:HG3	3:D:778:LEU:CD2	2.26	0.66
3:D:792:ILE:O	3:D:792:ILE:HG22	1.95	0.66
3:D:908:LYS:HG3	3:D:1027:GLY:HA3	1.77	0.66
2:C:163:ILE:HG23	2:C:265:LYS:NZ	2.11	0.65
2:C:626:ARG:NE	2:C:637:PHE:HZ	1.94	0.65
4:E:40:LEU:HB3	4:E:44:GLU:O	1.96	0.65
1:B:30:ARG:HG3	1:B:30:ARG:O	1.95	0.65
2:C:336:VAL:HA	2:C:339:LEU:HD12	1.78	0.65
2:C:958:SER:HB2	2:C:959:PRO:HD2	1.78	0.65
3:D:772:PRO:HD3	3:D:778:LEU:N	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1112:CYS:SG	3:D:1113:GLY:N	2.69	0.65
3:D:1273:VAL:HG23	3:D:1324:PRO:CG	2.19	0.65
2:C:721:ARG:O	2:C:758:ARG:HB2	1.95	0.65
3:D:90:MET:N	3:D:520:LEU:HD21	2.10	0.65
3:D:91:ALA:HB3	3:D:518:PRO:HD2	1.78	0.65
1:B:150:TYR:CE1	1:B:170:ILE:HG22	2.31	0.65
2:C:613:VAL:CG1	2:C:620:LEU:H	2.05	0.65
2:C:648:ARG:HG2	2:C:648:ARG:HH11	1.61	0.65
2:C:943:VAL:O	2:C:946:ARG:N	2.28	0.65
2:C:1045:ALA:HB1	2:C:1048:THR:CB	2.23	0.65
3:D:681:ARG:O	3:D:682:ASP:HB2	1.97	0.65
3:D:1069:GLU:O	3:D:1072:ILE:N	2.28	0.65
1:A:162:ILE:HG12	1:A:163:ASN:OD1	1.95	0.65
1:B:58:ILE:HG23	1:B:140:MET:HG2	1.77	0.65
1:B:174:VAL:HG12	1:B:201:THR:CG2	2.26	0.65
2:C:142:ARG:HH12	2:C:171:TRP:HH2	1.45	0.65
2:C:159:ILE:HG12	2:C:310:LEU:HD13	1.76	0.65
2:C:410:ILE:HG12	2:C:468:ARG:NH2	2.11	0.65
2:C:576:ALA:H	2:C:662:GLU:HG2	1.62	0.65
2:C:1034:GLU:HB3	3:D:618:LEU:O	1.96	0.65
3:D:754:PHE:O	3:D:758:GLU:HG2	1.96	0.65
3:D:789:LEU:HD11	3:D:934:LEU:HD22	1.78	0.65
1:A:35:THR:HG22	1:B:218:LEU:HD13	1.77	0.65
1:B:94:MET:CE	1:B:94:MET:HB2	2.27	0.65
2:C:796:GLU:HG2	3:D:681:ARG:HH22	1.62	0.65
2:C:857:ASP:O	2:C:858:MET:HB2	1.95	0.65
2:C:1020:PRO:HD2	3:D:622:ARG:O	1.96	0.65
3:D:860:LEU:HA	3:D:877:PRO:CG	2.21	0.65
2:C:404:LEU:HD23	2:C:587:VAL:HG13	1.79	0.65
2:C:467:ILE:HG22	2:C:484:VAL:HG21	1.77	0.65
2:C:564:MET:CG	2:C:997:LEU:HD11	2.26	0.65
2:C:575:GLN:O	2:C:667:ALA:HB1	1.96	0.65
2:C:604:VAL:HG11	2:C:619:ARG:HH22	1.61	0.65
2:C:1008:ARG:HB2	2:C:1028:GLY:HA3	1.77	0.65
1:A:213:GLN:O	1:A:216:ALA:HB3	1.97	0.65
2:C:813:VAL:CG1	2:C:815:LEU:HD11	2.26	0.65
2:C:953:VAL:CG2	2:C:966:LEU:HD13	2.27	0.65
3:D:129:PHE:CA	3:D:454:ALA:HB1	2.15	0.65
3:D:916:TYR:C	3:D:916:TYR:CD2	2.71	0.65
2:C:439:CYS:SG	2:C:440:PRO:HD2	2.37	0.65
2:C:631:SER:OG	2:C:635:THR:HG22	1.97	0.65

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:768:SER:HB2	2:C:769:PRO:HD2	1.79	0.64
2:C:859:PRO:O	2:C:867:VAL:HG23	1.98	0.64
3:D:968:ASP:O	3:D:969:ARG:C	2.36	0.64
3:D:996:TRP:HA	3:D:999:THR:HG22	1.78	0.64
3:D:1037:GLN:HG3	3:D:1042:ARG:CG	2.26	0.64
3:D:1323:GLN:N	3:D:1324:PRO:CD	2.61	0.64
2:C:12:VAL:HG21	2:C:479:VAL:HG11	1.79	0.64
2:C:256:TYR:CA	2:C:260:LEU:HD13	2.28	0.64
3:D:886:VAL:HG21	3:D:914:LEU:HD11	1.79	0.64
3:D:1086:LEU:O	3:D:1089:ALA:HB3	1.98	0.64
3:D:1142:SER:O	3:D:1364:HIS:HD2	1.80	0.64
2:C:946:ARG:HH11	2:C:946:ARG:HG2	1.63	0.64
4:E:59:ASN:HD22	4:E:62:THR:HG1	1.46	0.64
3:D:626:SER:HB2	3:D:748:HIS:HA	1.80	0.64
3:D:1378:TYR:CE2	3:D:1431:THR:HB	2.30	0.64
3:D:1433:SER:HB3	3:D:1464:GLU:OE2	1.98	0.64
4:E:59:ASN:HD21	4:E:61:VAL:HG23	1.63	0.64
1:B:14:THR:CB	1:B:22:GLU:HB3	2.27	0.63
3:D:606:ILE:H	3:D:606:ILE:HD12	1.63	0.63
3:D:840:LYS:CB	3:D:846:PRO:HA	2.28	0.63
3:D:1326:THR:O	3:D:1327:ARG:HB3	1.97	0.63
3:D:1484:THR:HG21	4:E:79:LEU:HB2	1.79	0.63
4:E:47:LYS:HD3	4:E:54:LEU:HD23	1.80	0.63
1:A:88:ARG:HB2	1:A:123:MET:SD	2.38	0.63
1:B:23:PHE:HD1	1:B:211:LEU:HD22	1.63	0.63
1:B:76:VAL:HB	3:D:872:ARG:NH2	2.13	0.63
2:C:831:ARG:HH12	2:C:1002:GLU:HB2	1.63	0.63
3:D:1280:VAL:HG12	3:D:1281:VAL:H	1.63	0.63
1:A:115:THR:HG23	1:A:115:THR:O	1.98	0.63
2:C:66:LEU:HD11	2:C:98:LEU:CB	2.27	0.63
2:C:1087:VAL:HG12	2:C:1091:GLU:OE2	1.97	0.63
3:D:496:LEU:HD12	3:D:500:ARG:HG2	1.81	0.63
3:D:723:GLY:O	3:D:724:GLN:HB2	1.98	0.63
3:D:965:GLU:O	3:D:968:ASP:HB2	1.97	0.63
3:D:969:ARG:HG3	3:D:970:LYS:H	1.60	0.63
3:D:1096:ARG:HG3	3:D:1096:ARG:NH1	2.10	0.63
2:C:303:PHE:H	2:C:305:PRO:HD2	1.63	0.63
3:D:580:ALA:HB2	3:D:587:ARG:HH22	1.63	0.63
3:D:769:LEU:HD22	3:D:779:ALA:HB2	1.80	0.63
3:D:788:GLY:O	3:D:792:ILE:HD13	1.97	0.63
3:D:1043:GLY:HA2	3:D:1057:VAL:CG2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1282:ARG:HB3	3:D:1293:PHE:HB2	1.80	0.63
2:C:38:LYS:O	2:C:39:ARG:HB2	1.98	0.63
2:C:66:LEU:CA	2:C:100:LEU:HA	2.28	0.63
2:C:129:ILE:CD1	2:C:386:PHE:HB3	2.29	0.63
2:C:408:ARG:NH2	2:C:456:ALA:O	2.28	0.63
2:C:475:LYS:C	2:C:477:GLY:H	2.02	0.63
2:C:580:MET:HB2	2:C:584:GLU:CD	2.19	0.63
2:C:602:GLU:O	2:C:603:VAL:HG13	1.99	0.63
2:C:1089:VAL:HG13	2:C:1099:VAL:HB	1.80	0.63
3:D:976:GLN:C	3:D:978:TYR:H	2.02	0.63
3:D:1103:HIS:C	3:D:1105:ILE:N	2.50	0.63
1:A:131:THR:CG2	2:C:644:ARG:HE	2.12	0.63
2:C:87:ASP:OD2	2:C:824:ARG:NH2	2.31	0.63
2:C:202:TYR:CE1	2:C:304:LEU:HB3	2.32	0.63
2:C:401:LEU:O	2:C:404:LEU:HB3	1.99	0.63
2:C:588:VAL:O	2:C:588:VAL:CG1	2.46	0.63
2:C:685:GLU:OE1	2:C:685:GLU:HA	1.99	0.63
2:C:874:LEU:O	2:C:876:VAL:HG23	1.98	0.63
3:D:89:ARG:O	3:D:520:LEU:HD11	1.97	0.63
3:D:643:GLY:HA2	3:D:721:VAL:HG21	1.80	0.63
3:D:880:ILE:O	3:D:883:ALA:HB3	1.98	0.63
3:D:972:ARG:O	3:D:976:GLN:HB2	1.99	0.63
3:D:1403:LEU:HD12	3:D:1417:TRP:HZ3	1.64	0.63
1:B:87:VAL:HG12	1:B:88:ARG:N	2.14	0.63
1:B:174:VAL:HA	1:B:201:THR:CB	2.28	0.63
3:D:1139:ASP:O	3:D:1143:GLY:N	2.32	0.63
3:D:1304:LYS:HD3	3:D:1304:LYS:H	1.61	0.63
1:A:46:SER:OG	2:C:856:GLU:HG2	1.98	0.63
1:B:90:LEU:HB2	1:B:119:ASP:HA	1.80	0.63
2:C:26:TYR:O	2:C:30:LEU:N	2.29	0.63
2:C:492:ASP:O	2:C:532:MET:HA	1.98	0.63
3:D:35(U):UNK:O	3:D:36(U):UNK:CB	2.47	0.63
3:D:456:MET:HG2	3:D:457:GLY:H	1.64	0.63
3:D:519:VAL:HG12	3:D:520:LEU:N	2.13	0.63
3:D:679:ARG:O	3:D:681:ARG:N	2.32	0.63
3:D:1154:GLU:O	3:D:1155:ALA:HB2	1.98	0.63
4:E:14:ASP:CG	4:E:15:SER:N	2.51	0.63
1:A:86:VAL:HG12	1:A:124:ASN:CG	2.18	0.63
2:C:202:TYR:HB3	2:C:207:LEU:HD13	1.80	0.63
2:C:257:LEU:CD2	2:C:264:PRO:HG3	2.29	0.63
2:C:268:ASP:O	2:C:270:GLY:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:816:LYS:HD2	2:C:817:PRO:CD	2.28	0.63
3:D:678:GLU:C	3:D:680:GLN:H	2.02	0.63
3:D:908:LYS:HD3	3:D:909:ASN:HB2	1.81	0.63
3:D:1236:LEU:HD12	3:D:1256:LEU:HD13	1.81	0.63
3:D:1324:PRO:HG2	3:D:1325:LEU:N	2.14	0.63
1:A:217:ILE:HG22	1:A:221:HIS:NE2	2.14	0.62
1:B:98:THR:CG2	1:B:99:LEU:H	2.12	0.62
1:B:115:THR:O	1:B:117:SER:N	2.32	0.62
2:C:110:GLU:HB2	2:C:369:PRO:HG2	1.80	0.62
2:C:787:ASP:O	2:C:787:ASP:OD1	2.17	0.62
2:C:66:LEU:HD11	2:C:98:LEU:HB3	1.80	0.62
2:C:676:ILE:O	2:C:677:MET:CB	2.47	0.62
2:C:722:ILE:HA	2:C:758:ARG:CB	2.29	0.62
2:C:1107:ASN:N	2:C:1108:PRO:CD	2.62	0.62
3:D:502:PHE:CE2	3:D:509:PRO:HG3	2.33	0.62
2:C:603:VAL:HG21	2:C:646:GLY:H	1.65	0.62
2:C:1012:PRO:HB3	2:C:1023:GLY:CA	2.29	0.62
2:C:1034:GLU:HA	2:C:1037:VAL:HG23	1.81	0.62
3:D:767:HIS:HE1	4:E:2:ALA:HB1	1.64	0.62
3:D:1083:ASP:O	3:D:1086:LEU:HB2	1.99	0.62
2:C:208:VAL:HG12	2:C:209:ARG:HG3	1.80	0.62
2:C:324:ASP:C	2:C:326:ASP:H	2.02	0.62
3:D:554:LEU:O	3:D:558:LEU:HD12	1.99	0.62
3:D:770:LEU:H	3:D:770:LEU:CD1	2.11	0.62
1:A:28:LEU:HD12	1:A:195:LEU:HB2	1.81	0.62
1:A:173:PRO:O	1:A:203:GLY:N	2.31	0.62
2:C:100:LEU:HD11	2:C:369:PRO:HD3	1.81	0.62
2:C:911:GLU:HA	2:C:914:ILE:HD12	1.81	0.62
2:C:1001:VAL:O	2:C:1004:LYS:N	2.27	0.62
3:D:688:TRP:HA	3:D:688:TRP:CE3	2.34	0.62
1:B:76:VAL:O	1:B:80:LEU:HG	1.98	0.62
2:C:595:LEU:HD21	2:C:623:HIS:HB3	1.82	0.62
2:C:946:ARG:NE	3:D:861:GLN:HE22	1.89	0.62
2:C:1038:TRP:CD1	3:D:1099:VAL:HG11	2.34	0.62
3:D:558:LEU:CD2	3:D:567:ILE:HG13	2.30	0.62
3:D:1291:SER:HA	3:D:1303:TYR:O	1.99	0.62
3:D:1462:LEU:HD23	3:D:1473:PRO:HG2	1.80	0.62
1:B:53:VAL:HG11	1:B:82:LEU:HG	1.82	0.62
1:B:174:VAL:HA	1:B:201:THR:CG2	2.29	0.62
2:C:502:PRO:HB2	2:C:507:ARG:NH1	2.14	0.62
3:D:3(U):UNK:O	3:D:39(U):UNK:O	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:639:LEU:HD23	3:D:729:HIS:CD2	2.35	0.62
3:D:793:THR:CG2	3:D:879:ARG:HH22	2.12	0.62
3:D:795:VAL:HG12	3:D:796:ARG:N	2.15	0.62
3:D:1019:PRO:C	3:D:1021:TYR:N	2.48	0.62
2:C:565:GLN:HG3	2:C:995:MET:HE1	1.81	0.62
2:C:635:THR:HG22	2:C:636:ALA:N	2.14	0.62
2:C:1052:MET:HE1	3:D:748:HIS:HB3	1.82	0.62
3:D:1075:HIS:O	3:D:1077:ALA:N	2.32	0.62
3:D:1266:ARG:O	3:D:1268:PRO:HD3	2.00	0.62
1:B:49:PRO:HD2	1:B:213:GLN:NE2	2.15	0.62
1:B:80:LEU:O	1:B:83:LYS:HB2	2.00	0.62
2:C:168:ARG:HH21	2:C:266:ARG:HG2	1.64	0.62
3:D:637:LEU:O	3:D:638:LYS:O	2.17	0.62
3:D:658:LEU:HA	3:D:661:MET:HE2	1.81	0.62
3:D:903:ASP:OD1	3:D:903:ASP:O	2.18	0.62
3:D:952:ASP:C	3:D:954:ALA:H	2.03	0.62
2:C:379:GLU:O	2:C:380:ALA:HB3	1.99	0.62
2:C:629:ALA:C	2:C:630:ARG:HD3	2.21	0.62
2:C:1113:GLU:C	2:C:1115:LEU:H	2.02	0.62
3:D:793:THR:CG2	3:D:879:ARG:HH12	2.13	0.62
3:D:863:THR:N	3:D:876:SER:OG	2.33	0.62
3:D:1059:SER:O	3:D:1061:PHE:N	2.33	0.62
3:D:1304:LYS:O	3:D:1304:LYS:HG2	2.00	0.62
3:D:1394:VAL:HG12	3:D:1395:LEU:N	2.15	0.62
3:D:1403:LEU:CD2	3:D:1415:VAL:H	2.11	0.62
1:A:110:ARG:HD3	1:A:113:ASP:OD2	2.00	0.61
1:A:224:TYR:CD1	1:B:9:PRO:HD2	2.35	0.61
2:C:22:GLN:HE21	2:C:336:VAL:HG21	1.64	0.61
2:C:22:GLN:O	2:C:24:GLU:N	2.32	0.61
2:C:559:LEU:HD12	2:C:559:LEU:C	2.21	0.61
3:D:10:ILE:HG21	3:D:1450:ALA:HB1	1.82	0.61
3:D:757:ALA:HB2	4:E:61:VAL:CG1	2.30	0.61
3:D:1263:PHE:CE2	3:D:1352:ILE:HD13	2.35	0.61
1:A:15:THR:OG1	1:A:16:GLN:N	2.32	0.61
1:A:35:THR:HG21	1:B:43:ILE:CD1	2.30	0.61
2:C:159:ILE:HG21	2:C:306:THR:CG2	2.30	0.61
2:C:438:ILE:HG23	2:C:470:PRO:HB3	1.81	0.61
2:C:613:VAL:CG1	2:C:614:ARG:N	2.64	0.61
2:C:946:ARG:NE	3:D:861:GLN:NE2	2.43	0.61
3:D:1262:LEU:HD21	3:D:1351:GLU:HG3	1.81	0.61
3:D:1264:GLU:HG2	3:D:1266:ARG:NH2	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:188:GLN:CG	3:D:688:TRP:HD1	2.13	0.61
2:C:14:PRO:O	2:C:15:LEU:HB3	1.99	0.61
2:C:686:ASP:OD2	3:D:739:ASP:OD2	2.18	0.61
3:D:518:PRO:CB	3:D:544:TYR:CE1	2.82	0.61
3:D:770:LEU:HD12	3:D:770:LEU:N	2.15	0.61
3:D:891:GLY:N	3:D:926:LYS:NZ	2.47	0.61
3:D:921:ARG:O	3:D:922:LEU:HD23	2.00	0.61
3:D:1103:HIS:O	3:D:1104:GLU:HB3	2.01	0.61
3:D:1270:ALA:HB3	3:D:1328:GLY:HA3	1.82	0.61
3:D:1333:HIS:CE1	3:D:1421:LEU:HB3	2.35	0.61
1:A:86:VAL:HG21	1:A:203:GLY:C	2.20	0.61
1:A:142:VAL:O	1:A:143:ARG:O	2.18	0.61
2:C:614:ARG:O	2:C:616:GLU:N	2.30	0.61
3:D:633:VAL:HG22	3:D:634:GLY:N	2.15	0.61
3:D:638:LYS:HA	3:D:729:HIS:CG	2.35	0.61
3:D:699:VAL:HG12	3:D:717:GLN:CG	2.30	0.61
3:D:1045:MET:HA	3:D:1045:MET:HE2	1.82	0.61
1:A:31:GLY:H	1:A:193:ASP:CG	2.03	0.61
1:A:169:ALA:O	1:A:170:ILE:HD13	2.01	0.61
2:C:184:MET:HB3	2:C:191:PHE:CE1	2.36	0.61
2:C:348:LEU:CD1	2:C:378:LEU:HD11	2.30	0.61
2:C:588:VAL:CG2	2:C:666:LEU:HB2	2.29	0.61
2:C:605:LYS:HA	2:C:612:ALA:H	1.65	0.61
2:C:729:LEU:O	2:C:731:GLU:N	2.33	0.61
3:D:1036:ARG:O	3:D:1040:GLY:O	2.18	0.61
3:D:1150:ALA:HB2	3:D:1189:ARG:CG	2.29	0.61
1:A:10:VAL:HB	1:A:26:GLU:HG3	1.82	0.61
1:B:125:PRO:HG2	1:B:126:ASP:H	1.65	0.61
2:C:9:ILE:CG2	2:C:10:ARG:N	2.61	0.61
2:C:342:ASP:O	2:C:345:ARG:HB2	2.01	0.61
2:C:466:PHE:CE1	2:C:467:ILE:HD12	2.35	0.61
2:C:1005:MET:HB2	3:D:629:SER:CB	2.29	0.61
3:D:760:ARG:NH1	4:E:59:ASN:HD21	1.98	0.61
3:D:792:ILE:N	3:D:792:ILE:HD12	2.16	0.61
2:C:491:GLU:O	2:C:509:ALA:HB1	2.01	0.61
2:C:1101:THR:O	2:C:1110:ASP:N	2.33	0.61
3:D:607:LEU:O	3:D:608:SER:HB2	2.00	0.61
3:D:1372:VAL:HG22	3:D:1375:MET:HE3	1.80	0.61
2:C:1067:TYR:CG	2:C:1067:TYR:O	2.54	0.61
3:D:509:PRO:HA	3:D:511:TRP:HE1	1.64	0.61
3:D:590:PRO:HA	3:D:600:LEU:HG	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:985:ASP:O	3:D:988:ARG:HB3	2.00	0.61
3:D:1017:PHE:HA	3:D:1023:MET:HE1	1.81	0.61
3:D:1278:ASP:HA	3:D:1317:ASP:O	2.01	0.61
3:D:1379:VAL:O	3:D:1393:GLN:HA	2.01	0.61
1:A:175:ARG:O	1:A:176:ARG:HB2	2.01	0.61
1:A:180:GLN:HE21	2:C:934:PHE:CB	2.12	0.61
1:B:26:GLU:HG3	1:B:194:LYS:CD	2.22	0.61
2:C:327:HIS:C	2:C:329:GLY:H	2.03	0.61
2:C:482:GLU:HA	2:C:486:MET:CE	2.31	0.61
2:C:552:HIS:CE1	3:D:1064:GLY:N	2.69	0.61
3:D:545:ARG:HG3	3:D:546:ARG:N	2.15	0.61
1:B:175:ARG:O	1:B:176:ARG:HB2	2.01	0.60
2:C:8:ARG:HH11	2:C:495:THR:HG23	1.65	0.60
2:C:569:VAL:O	2:C:569:VAL:CG1	2.44	0.60
2:C:963:LEU:CD1	2:C:972:VAL:HG22	2.30	0.60
3:D:857:LEU:O	3:D:858:LEU:C	2.39	0.60
3:D:916:TYR:HD2	3:D:917:GLN:N	1.99	0.60
3:D:1192:LEU:HD13	3:D:1345:GLU:OE1	2.01	0.60
3:D:1356:TYR:HD1	3:D:1363:LEU:HD21	1.65	0.60
3:D:1485:GLN:CB	4:E:22:VAL:HG22	2.31	0.60
1:B:86:VAL:HG23	1:B:124:ASN:CG	2.22	0.60
1:B:143:ARG:HD2	1:B:159:LYS:CG	2.31	0.60
2:C:475:LYS:CB	2:C:527:GLU:H	2.14	0.60
2:C:491:GLU:HG3	2:C:510:THR:HB	1.81	0.60
2:C:589:ARG:NH1	2:C:596:TYR:HB3	2.16	0.60
2:C:598:GLU:OE2	2:C:614:ARG:NH2	2.33	0.60
3:D:638:LYS:C	3:D:639:LEU:O	2.38	0.60
3:D:747:VAL:O	3:D:747:VAL:HG22	2.01	0.60
3:D:1324:PRO:HG2	3:D:1325:LEU:H	1.67	0.60
1:B:42:ARG:HG3	1:B:42:ARG:HH11	1.65	0.60
2:C:342:ASP:O	2:C:346:VAL:HG23	2.01	0.60
2:C:588:VAL:HG11	2:C:661:SER:HB3	1.81	0.60
2:C:729:LEU:HB3	2:C:734:LEU:HD21	1.83	0.60
2:C:1055:ILE:H	2:C:1055:ILE:CD1	2.02	0.60
3:D:948:THR:H	3:D:1020:LEU:HD13	1.66	0.60
1:B:148:VAL:HG23	1:B:149:GLY:N	2.16	0.60
2:C:165:LEU:HD13	2:C:342:ASP:OD2	2.01	0.60
3:D:100:ALA:HB2	3:D:575:GLN:HG3	1.83	0.60
3:D:566:ILE:C	3:D:570:GLU:HG3	2.21	0.60
3:D:1003:VAL:O	3:D:1006:ALA:HB3	2.02	0.60
3:D:1272:ALA:CB	3:D:1325:LEU:HA	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1346:ARG:HH12	3:D:1349:VAL:HG11	1.66	0.60
3:D:1364:HIS:CD2	3:D:1365:ASP:H	2.19	0.60
4:E:29:GLN:HA	4:E:32:ARG:HG2	1.84	0.60
1:B:51:THR:HG21	1:B:87:VAL:O	2.01	0.60
2:C:317:VAL:H	2:C:318:PRO:HD2	1.66	0.60
2:C:706:GLU:HG3	2:C:707:ARG:N	2.15	0.60
2:C:875:GLY:HA3	2:C:879:ARG:HD2	1.84	0.60
3:D:10:ILE:HG13	3:D:11:ALA:N	2.17	0.60
3:D:609:GLY:HA2	3:D:615:ARG:NH2	2.15	0.60
3:D:1236:LEU:CB	3:D:1256:LEU:HB2	2.27	0.60
1:A:30:ARG:HH11	1:A:191:ASP:HB2	1.66	0.60
2:C:110:GLU:HB2	2:C:369:PRO:CG	2.32	0.60
2:C:391:LEU:HD22	2:C:415:PRO:HD3	1.82	0.60
2:C:519:GLY:C	2:C:521:PRO:HD3	2.22	0.60
2:C:636:ALA:HB2	2:C:705:ILE:HD11	1.82	0.60
3:D:465:LEU:HD22	3:D:512:MET:HE1	1.83	0.60
3:D:932:ASP:O	3:D:933:ALA:C	2.40	0.60
1:A:16:GLN:HG3	1:A:20:TYR:HB2	1.83	0.60
2:C:152:PRO:HD2	2:C:158:TYR:CE2	2.35	0.60
2:C:184:MET:HE1	2:C:303:PHE:CZ	2.37	0.60
2:C:440:PRO:CG	2:C:454:SER:H	2.15	0.60
2:C:460:ARG:HD2	2:C:464:LEU:CD2	2.30	0.60
2:C:730:SER:O	2:C:731:GLU:C	2.40	0.60
2:C:1033:GLY:O	2:C:1035:MET:N	2.35	0.60
3:D:88:TYR:O	3:D:520:LEU:HD13	2.01	0.60
3:D:566:ILE:HG22	3:D:566:ILE:O	2.01	0.60
3:D:969:ARG:CG	3:D:970:LYS:N	2.62	0.60
3:D:1194:CYS:SG	3:D:1201:CYS:HB2	2.41	0.60
4:E:30:LEU:O	4:E:32:ARG:N	2.31	0.60
1:A:41:ARG:HH11	1:A:41:ARG:C	2.04	0.60
2:C:572:ILE:O	2:C:573:ARG:CB	2.49	0.60
2:C:743:VAL:HG11	2:C:800:VAL:HG21	1.83	0.60
3:D:91:ALA:HB3	3:D:518:PRO:CG	2.31	0.60
4:E:14:ASP:CG	4:E:15:SER:H	2.05	0.60
1:A:44:LEU:O	1:A:174:VAL:HG21	2.01	0.60
2:C:253:ALA:CA	2:C:256:TYR:HB2	2.22	0.60
2:C:613:VAL:HG11	2:C:619:ARG:HA	1.83	0.60
2:C:712:ALA:HB1	2:C:720:GLU:O	2.02	0.60
2:C:815:LEU:HD12	2:C:815:LEU:N	2.16	0.60
2:C:1054:THR:CB	2:C:1055:ILE:HD12	2.32	0.60
3:D:587:ARG:HG2	3:D:588:GLY:H	1.66	0.60

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:9:ILE:N	2:C:9:ILE:HD12	2.18	0.59
2:C:679:PHE:O	2:C:681:GLY:N	2.35	0.59
2:C:861:LEU:HG	2:C:862:PRO:CD	2.16	0.59
3:D:701:LEU:HD12	3:D:715:ALA:CB	2.33	0.59
3:D:964:LEU:O	3:D:966:GLU:N	2.33	0.59
3:D:1222:GLY:O	3:D:1225:ALA:HB3	2.02	0.59
3:D:1364:HIS:CG	3:D:1365:ASP:N	2.69	0.59
1:B:79:ILE:HG23	1:B:167:VAL:HG12	1.85	0.59
2:C:480:THR:HG23	2:C:480:THR:O	2.03	0.59
2:C:527:GLU:O	2:C:528:GLU:C	2.41	0.59
2:C:564:MET:SD	2:C:840:ALA:CB	2.87	0.59
2:C:577:PRO:HA	2:C:671:ASN:HD22	1.67	0.59
2:C:769:PRO:O	2:C:771:GLU:N	2.34	0.59
2:C:1034:GLU:HA	2:C:1037:VAL:CG2	2.33	0.59
3:D:518:PRO:HB3	3:D:544:TYR:CZ	2.38	0.59
3:D:719:VAL:O	3:D:721:VAL:HG23	2.02	0.59
3:D:850:LEU:HA	3:D:853:VAL:HB	1.85	0.59
3:D:978:TYR:CG	3:D:988:ARG:HD2	2.37	0.59
3:D:1017:PHE:HA	3:D:1023:MET:CE	2.33	0.59
3:D:1107:VAL:HG13	3:D:1202:GLN:HA	1.84	0.59
3:D:1109:GLU:HG3	3:D:1110:ALA:H	1.67	0.59
1:B:42:ARG:HG3	1:B:42:ARG:NH1	2.18	0.59
1:B:214:ALA:HA	1:B:217:ILE:CG1	2.32	0.59
1:B:223:ASN:O	1:B:225:PHE:N	2.36	0.59
2:C:11:GLU:OE1	2:C:473:ARG:HG3	2.03	0.59
2:C:367:LEU:HD13	2:C:372:LEU:HD21	1.85	0.59
2:C:439:CYS:HB2	2:C:468:ARG:NH1	2.17	0.59
2:C:882:LEU:HD11	2:C:884:GLN:HE21	1.67	0.59
2:C:950:LEU:HB3	3:D:1018:ASN:OD1	2.03	0.59
3:D:795:VAL:HG21	3:D:904:VAL:HG21	1.85	0.59
3:D:1431:THR:C	3:D:1432:LYS:HG2	2.23	0.59
1:B:199:ILE:O	1:B:199:ILE:HG22	2.03	0.59
2:C:972:VAL:O	2:C:974:LEU:N	2.35	0.59
3:D:7(U):UNK:O	3:D:35(U):UNK:N	2.36	0.59
3:D:590:PRO:CB	3:D:599:PRO:HA	2.33	0.59
3:D:916:TYR:C	3:D:918:ALA:H	2.05	0.59
3:D:927:THR:HG22	3:D:931:LEU:HD23	1.84	0.59
3:D:961:GLN:O	3:D:962:ARG:C	2.40	0.59
1:A:101:LEU:HD12	1:A:101:LEU:C	2.22	0.59
1:B:149:GLY:HA2	1:B:172:SER:OG	2.03	0.59
2:C:181:VAL:HG21	2:C:220:GLY:HA3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:368:THR:HB	2:C:369:PRO:HD2	1.85	0.59
2:C:461:VAL:O	2:C:462:ASP:CB	2.51	0.59
2:C:467:ILE:O	2:C:469:THR:HG23	2.03	0.59
2:C:525:ALA:O	2:C:526:PRO:C	2.40	0.59
2:C:568:ALA:O	2:C:569:VAL:HB	2.03	0.59
2:C:613:VAL:CG1	2:C:614:ARG:H	2.16	0.59
2:C:1021:LEU:HG	3:D:622:ARG:HD2	1.84	0.59
2:C:1103:ASP:HB2	2:C:1108:PRO:CB	2.30	0.59
3:D:126:VAL:H	3:D:456:MET:CE	2.15	0.59
3:D:1147:ARG:CB	3:D:1188:VAL:HG21	2.32	0.59
4:E:86:GLN:O	4:E:89:MET:HB2	2.03	0.59
1:A:185:ARG:HH21	1:A:194:LYS:HE3	1.68	0.58
1:A:221:HIS:HA	1:A:224:TYR:CD2	2.38	0.58
2:C:162:ILE:CG2	2:C:163:ILE:N	2.66	0.58
2:C:440:PRO:HG3	2:C:454:SER:HB3	1.85	0.58
2:C:755:LEU:O	2:C:755:LEU:HD13	2.03	0.58
2:C:882:LEU:HD23	2:C:882:LEU:H	1.68	0.58
2:C:989:VAL:HG12	2:C:990:GLY:N	2.16	0.58
3:D:762:GLN:NE2	4:E:20:THR:HG21	2.18	0.58
3:D:948:THR:N	3:D:1020:LEU:HD13	2.18	0.58
2:C:164:PRO:HG2	2:C:168:ARG:HG2	1.84	0.58
2:C:839:LEU:O	2:C:995:MET:O	2.21	0.58
3:D:879:ARG:HG2	3:D:879:ARG:HH11	1.68	0.58
3:D:1273:VAL:N	3:D:1324:PRO:CG	2.67	0.58
1:B:14:THR:OG1	1:B:22:GLU:HB3	2.03	0.58
1:B:80:LEU:HD13	3:D:839:LEU:CB	2.33	0.58
1:B:101:LEU:HD13	1:B:114:PHE:HA	1.85	0.58
2:C:110:GLU:H	2:C:369:PRO:CG	2.16	0.58
2:C:483:VAL:O	2:C:486:MET:N	2.36	0.58
2:C:603:VAL:CG2	2:C:646:GLY:H	2.16	0.58
2:C:841:ASN:ND2	2:C:845:ASN:H	2.00	0.58
3:D:701:LEU:HD11	3:D:759:ALA:HB1	1.85	0.58
3:D:757:ALA:HB2	4:E:61:VAL:HG11	1.86	0.58
3:D:1165:TYR:CZ	3:D:1214:PRO:HB3	2.38	0.58
1:A:224:TYR:CE1	1:B:9:PRO:HD2	2.39	0.58
2:C:11:GLU:OE2	2:C:473:ARG:NE	2.36	0.58
2:C:348:LEU:C	2:C:350:ARG:H	2.06	0.58
2:C:636:ALA:CB	2:C:705:ILE:HD11	2.33	0.58
2:C:850:ALA:HA	3:D:632:VAL:CG1	2.34	0.58
2:C:885:ILE:O	2:C:887:GLU:N	2.37	0.58
3:D:1125:MET:HG2	3:D:1126:ASP:N	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1200:VAL:HA	3:D:1373:ARG:HH12	1.69	0.58
2:C:483:VAL:O	2:C:486:MET:HB2	2.03	0.58
2:C:501:THR:O	2:C:502:PRO:C	2.42	0.58
2:C:565:GLN:HG3	2:C:995:MET:HE3	1.85	0.58
2:C:945:ALA:O	2:C:949:LYS:HG3	2.03	0.58
2:C:1098:ASP:OD1	2:C:1100:GLN:HG3	2.02	0.58
3:D:129:PHE:O	3:D:130:ASN:CB	2.50	0.58
3:D:599:PRO:O	3:D:600:LEU:HD23	2.04	0.58
3:D:798:GLU:HG3	3:D:821:VAL:CB	2.32	0.58
3:D:907:GLU:HB3	3:D:911:LEU:HD22	1.86	0.58
3:D:948:THR:H	3:D:1020:LEU:CD1	2.16	0.58
3:D:1353:GLN:HE21	3:D:1368:ILE:CD1	2.07	0.58
2:C:419:THR:O	2:C:420:ARG:C	2.42	0.58
2:C:987:ILE:HD11	3:D:946:GLY:C	2.23	0.58
3:D:699:VAL:HA	3:D:717:GLN:HA	1.84	0.58
3:D:1211:MET:HE2	4:E:16:LYS:HD2	1.84	0.58
1:A:131:THR:HG23	2:C:644:ARG:HE	1.68	0.58
1:B:94:MET:HE1	1:B:119:ASP:HB2	1.86	0.58
2:C:198:ARG:NH1	2:C:231:PRO:HD3	2.19	0.58
2:C:312:ALA:HB1	2:C:318:PRO:HG3	1.85	0.58
2:C:613:VAL:CG1	2:C:619:ARG:HG2	2.33	0.58
2:C:1052:MET:HE3	2:C:1056:LYS:HZ1	1.69	0.58
2:C:1100:GLN:O	3:D:8:VAL:O	2.22	0.58
3:D:551:ASN:HA	3:D:574:LEU:HD13	1.84	0.58
3:D:582:ILE:HG22	3:D:583:ASP:H	1.68	0.58
3:D:1035:ILE:C	3:D:1037:GLN:H	2.05	0.58
1:A:90:LEU:HB2	1:A:119:ASP:CB	2.34	0.58
1:A:143:ARG:HD3	1:A:145:ASP:OD1	2.04	0.58
1:A:158:ILE:HG13	1:A:161:ARG:HG2	1.86	0.58
1:A:181:VAL:O	1:A:181:VAL:HG12	2.04	0.58
1:B:36:LEU:O	1:B:39:PRO:HD2	2.03	0.58
1:B:55:SER:OG	1:B:157:GLY:HA3	2.03	0.58
2:C:395:LYS:HG3	2:C:397:GLU:HG3	1.85	0.58
3:D:642:CYS:SG	3:D:702:LEU:HD23	2.43	0.58
3:D:704:ARG:NH1	3:D:743:ASP:CG	2.53	0.58
3:D:898:GLU:C	3:D:899:LEU:HD13	2.24	0.58
3:D:959:GLU:O	3:D:963:TYR:CD1	2.56	0.58
1:A:198:ARG:HH12	2:C:932:GLU:HB3	1.68	0.58
2:C:386:PHE:O	2:C:392:SER:OG	2.15	0.58
2:C:487:THR:O	2:C:489:SER:N	2.37	0.58
2:C:684:PHE:CD2	2:C:685:GLU:HG2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1008:ARG:NH2	2:C:1020:PRO:HB3	2.18	0.58
3:D:1008:PHE:CE1	3:D:1035:ILE:HG13	2.28	0.58
3:D:1014:ASN:C	3:D:1015:TYR:CG	2.76	0.58
3:D:1194:CYS:HB3	3:D:1373:ARG:HH22	1.66	0.58
3:D:1281:VAL:HA	3:D:1314:LYS:HA	1.85	0.58
3:D:1452:ILE:HG22	3:D:1453:ALA:N	2.19	0.58
3:D:1486:VAL:O	4:E:79:LEU:HD12	2.04	0.58
2:C:128:ILE:HD12	2:C:128:ILE:N	2.19	0.58
2:C:758:ARG:HH11	2:C:758:ARG:HG3	1.68	0.58
2:C:1082:PRO:HG2	2:C:1085:PHE:CB	2.34	0.58
3:D:1059:SER:O	3:D:1060:SER:C	2.38	0.58
3:D:1234:THR:HG22	3:D:1234:THR:O	2.04	0.58
3:D:1261:GLU:OE1	3:D:1268:PRO:HB3	2.02	0.58
1:A:124:ASN:O	1:A:125:PRO:O	2.22	0.57
2:C:281:LEU:HD21	2:C:306:THR:OG1	2.04	0.57
2:C:349:ALA:C	2:C:350:ARG:HG3	2.23	0.57
2:C:579:VAL:CG2	2:C:887:GLU:HG3	2.34	0.57
2:C:635:THR:O	2:C:636:ALA:CB	2.51	0.57
3:D:789:LEU:HD13	3:D:882:PHE:CE1	2.39	0.57
3:D:794:GLN:O	3:D:795:VAL:HB	2.03	0.57
3:D:1031:ASN:OD1	3:D:1033:GLN:HG2	2.04	0.57
3:D:1059:SER:C	3:D:1061:PHE:N	2.56	0.57
4:E:68:LEU:HD13	4:E:73:LEU:HD12	1.84	0.57
2:C:136:ILE:CG2	2:C:336:VAL:HG13	2.33	0.57
2:C:137:VAL:CG1	2:C:411:SER:HB2	2.34	0.57
2:C:695:LEU:O	2:C:698:ASP:N	2.35	0.57
2:C:926:PHE:CE1	2:C:929:ARG:HD2	2.39	0.57
2:C:946:ARG:O	2:C:950:LEU:HG	2.04	0.57
3:D:959:GLU:O	3:D:963:TYR:HD1	1.87	0.57
1:A:106:PRO:O	1:A:107:LYS:CB	2.52	0.57
2:C:26:TYR:CE2	2:C:30:LEU:HD22	2.39	0.57
2:C:399:ASN:ND2	2:C:401:LEU:H	2.01	0.57
2:C:551:GLU:HG3	2:C:906:PHE:CD2	2.39	0.57
2:C:742:ILE:HG23	2:C:756:VAL:HG22	1.86	0.57
3:D:969:ARG:HG3	3:D:970:LYS:HG3	1.85	0.57
3:D:1076:GLY:O	3:D:1079:LYS:HG2	2.04	0.57
3:D:1103:HIS:H	3:D:1222:GLY:HA3	1.70	0.57
3:D:1109:GLU:O	3:D:1217:ILE:HD11	2.03	0.57
1:A:71:VAL:HG13	1:A:132:LEU:HB3	1.85	0.57
1:A:178:ALA:O	1:A:179:PHE:HB3	2.04	0.57
1:A:222:LEU:HD12	1:B:215:VAL:CG1	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:73:GLU:N	1:B:73:GLU:OE2	2.38	0.57
2:C:64:LEU:CD1	2:C:367:LEU:HD12	2.34	0.57
2:C:157:ARG:HG3	2:C:313:LEU:HG	1.85	0.57
2:C:466:PHE:CD1	2:C:467:ILE:HG13	2.39	0.57
3:D:772:PRO:CD	3:D:778:LEU:HB2	2.34	0.57
3:D:1204:CYS:C	3:D:1206:GLY:H	2.08	0.57
1:A:228:PRO:HA	1:B:11:PHE:O	2.05	0.57
1:B:95:ALA:O	1:B:96:SER:HB3	2.05	0.57
2:C:34:VAL:HG11	2:C:38:LYS:HG3	1.86	0.57
3:D:639:LEU:HD23	3:D:729:HIS:HD2	1.68	0.57
3:D:829:VAL:O	3:D:830:ALA:HB3	2.05	0.57
3:D:1084:THR:C	3:D:1086:LEU:H	2.07	0.57
3:D:1275:SER:N	3:D:1322:GLY:HA2	2.18	0.57
3:D:1280:VAL:HG13	3:D:1315:ASP:CA	2.18	0.57
3:D:1280:VAL:CG1	3:D:1281:VAL:N	2.68	0.57
3:D:1353:GLN:HB3	3:D:1357:ARG:CD	2.34	0.57
4:E:38:THR:HG22	4:E:39:VAL:N	2.20	0.57
1:B:19:HIS:HB3	1:B:201:THR:O	2.04	0.57
2:C:3:ILE:CG2	2:C:902:ILE:HD13	2.35	0.57
2:C:142:ARG:CD	2:C:324:ASP:HA	2.34	0.57
2:C:662:GLU:O	2:C:663:GLU:HB2	2.04	0.57
2:C:1054:THR:C	2:C:1056:LYS:H	2.08	0.57
3:D:758:GLU:O	3:D:762:GLN:HG3	2.04	0.57
3:D:1430:SER:O	3:D:1431:THR:HB	2.05	0.57
4:E:17:TYR:O	4:E:21:VAL:HG23	2.05	0.57
1:A:56:VAL:HB	1:A:142:VAL:HB	1.86	0.57
2:C:202:TYR:CD1	2:C:304:LEU:HD13	2.39	0.57
2:C:374:ASN:O	2:C:376:ARG:N	2.38	0.57
2:C:747:ALA:O	2:C:749:VAL:HG23	2.05	0.57
2:C:760:SER:O	2:C:785:VAL:HG22	2.05	0.57
3:D:558:LEU:HD21	3:D:567:ILE:HG13	1.86	0.57
3:D:890:VAL:HG11	3:D:922:LEU:HD11	1.87	0.57
4:E:79:LEU:O	4:E:81:PRO:HD2	2.04	0.57
1:A:41:ARG:HG2	1:A:177:VAL:HB	1.85	0.57
1:A:225:PHE:CZ	1:B:25:LEU:HD23	2.40	0.57
1:B:25:LEU:CD1	1:B:28:LEU:HD11	2.29	0.57
2:C:149:THR:HB	2:C:158:TYR:CE1	2.34	0.57
2:C:162:ILE:HG22	2:C:163:ILE:N	2.20	0.57
2:C:211:LEU:HD22	2:C:304:LEU:CD1	2.34	0.57
2:C:410:ILE:HG21	2:C:468:ARG:NH2	2.19	0.57
2:C:1052:MET:HE2	3:D:623:VAL:HG11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1014:ASN:O	3:D:1015:TYR:CB	2.53	0.57
2:C:51:THR:HG1	2:C:348:LEU:HD23	1.70	0.57
2:C:260:LEU:HD12	2:C:292:ARG:CB	2.35	0.57
2:C:988:VAL:HG12	3:D:948:THR:OG1	2.04	0.57
3:D:480:GLU:HA	3:D:493:ARG:NH1	2.19	0.57
3:D:853:VAL:HG21	3:D:877:PRO:CB	2.35	0.57
3:D:1312:LEU:O	3:D:1313:VAL:CB	2.53	0.57
3:D:1479:ASP:C	3:D:1481:VAL:H	2.07	0.57
1:B:26:GLU:CB	1:B:27:PRO:CD	2.79	0.57
1:B:129:ILE:O	1:B:130:ALA:HB2	2.04	0.57
2:C:12:VAL:O	2:C:13:ILE:HD12	2.05	0.57
2:C:545:ASN:CB	2:C:583:LEU:HD12	2.35	0.57
2:C:659:PRO:O	2:C:660:ALA:CB	2.52	0.57
3:D:69:GLU:O	3:D:70:ALA:HB3	2.05	0.57
3:D:626:SER:HA	3:D:652:LEU:CD1	2.35	0.57
3:D:1023:MET:SD	3:D:1023:MET:N	2.77	0.57
3:D:1250:THR:HG21	3:D:1270:ALA:HB2	1.86	0.57
4:E:3:GLU:HB3	4:E:4:PRO:CD	2.35	0.57
1:A:72:LYS:N	2:C:607:ASP:HB3	2.20	0.56
1:A:101:LEU:HD21	1:A:109:VAL:HG11	1.85	0.56
1:B:150:TYR:CD1	1:B:170:ILE:HG22	2.40	0.56
2:C:468:ARG:O	2:C:469:THR:O	2.23	0.56
2:C:597:ALA:HA	2:C:614:ARG:NH1	2.19	0.56
2:C:728:HIS:CD2	2:C:783:ARG:HH11	2.22	0.56
2:C:843:HIS:HD2	2:C:884:GLN:HA	1.66	0.56
2:C:874:LEU:CD2	3:D:784:ASP:HA	2.35	0.56
2:C:892:LEU:HD23	2:C:892:LEU:N	2.19	0.56
2:C:1077:PRO:O	2:C:1079:PRO:HD3	2.05	0.56
3:D:663:GLU:C	3:D:665:ALA:H	2.09	0.56
3:D:777:PRO:CG	3:D:912:LYS:HG3	2.34	0.56
3:D:934:LEU:O	3:D:935:LYS:C	2.44	0.56
3:D:1277:ILE:HG22	3:D:1278:ASP:N	2.20	0.56
3:D:1379:VAL:HG22	3:D:1394:VAL:O	2.04	0.56
1:B:53:VAL:HG12	1:B:167:VAL:HG21	1.86	0.56
1:B:72:LYS:HB3	1:B:131:THR:HB	1.87	0.56
2:C:100:LEU:HD21	2:C:368:THR:CA	2.36	0.56
2:C:129:ILE:HD12	2:C:386:PHE:HB3	1.85	0.56
2:C:142:ARG:HE	2:C:324:ASP:HA	1.69	0.56
2:C:163:ILE:CG2	2:C:164:PRO:HD2	2.34	0.56
2:C:317:VAL:N	2:C:318:PRO:HD2	2.20	0.56
2:C:568:ALA:O	2:C:569:VAL:CB	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1055:ILE:CG2	2:C:1066:ALA:HB2	2.34	0.56
3:D:461:ILE:HG22	3:D:465:LEU:CD1	2.35	0.56
3:D:580:ALA:HB2	3:D:587:ARG:NH2	2.21	0.56
3:D:702:LEU:HD12	3:D:745:MET:SD	2.45	0.56
3:D:957:PRO:HG3	3:D:1007:VAL:HB	1.87	0.56
1:A:52:ALA:HB3	1:A:171:PHE:CE1	2.39	0.56
1:B:77:GLU:OE1	1:B:77:GLU:HA	2.05	0.56
1:B:100:ILE:HA	1:B:141:GLU:HA	1.86	0.56
1:B:126:ASP:O	1:B:127:LEU:HB3	2.05	0.56
2:C:159:ILE:HD11	2:C:310:LEU:CB	2.29	0.56
2:C:169:GLY:HA2	2:C:264:PRO:O	2.06	0.56
2:C:640:ARG:HG3	2:C:640:ARG:NH1	2.20	0.56
2:C:726:ILE:H	2:C:726:ILE:CD1	2.14	0.56
2:C:735:ARG:HA	2:C:737:LEU:O	2.04	0.56
2:C:873:PRO:HG2	2:C:874:LEU:N	2.18	0.56
2:C:989:VAL:CG1	2:C:990:GLY:N	2.68	0.56
3:D:88:TYR:O	3:D:89:ARG:CB	2.53	0.56
3:D:88:TYR:C	3:D:520:LEU:HD13	2.25	0.56
3:D:91:ALA:CB	3:D:518:PRO:HG2	2.36	0.56
3:D:811:GLU:CA	3:D:814:ALA:HB3	2.24	0.56
3:D:1154:GLU:CB	3:D:1159:ARG:HG2	2.25	0.56
3:D:1381:VAL:HG12	3:D:1382:THR:N	2.20	0.56
3:D:1475:GLY:C	3:D:1477:GLY:N	2.59	0.56
1:A:26:GLU:OE2	1:A:185:ARG:CZ	2.53	0.56
1:A:99:LEU:O	1:A:100:ILE:HD13	2.06	0.56
2:C:100:LEU:HD21	2:C:368:THR:HA	1.87	0.56
2:C:493:ARG:HH12	3:D:1069:GLU:CD	2.08	0.56
2:C:873:PRO:CG	2:C:874:LEU:H	2.18	0.56
2:C:940:GLU:HA	2:C:973:VAL:HG21	1.87	0.56
3:D:20(U):UNK:O	3:D:21(U):UNK:CB	2.53	0.56
3:D:898:GLU:OE1	3:D:921:ARG:NH1	2.38	0.56
3:D:1062:ARG:C	3:D:1062:ARG:HD3	2.25	0.56
3:D:1208:ASP:HA	3:D:1215:VAL:HG22	1.87	0.56
3:D:1376:LEU:HD11	3:D:1421:LEU:CD1	2.32	0.56
3:D:1463:LYS:O	3:D:1467:ILE:HG13	2.05	0.56
3:D:1483:PHE:HE2	4:E:18:ARG:NE	2.03	0.56
1:A:199:ILE:HG22	1:A:199:ILE:O	2.05	0.56
2:C:443:THR:N	2:C:444:PRO:CD	2.69	0.56
2:C:456:ALA:HB3	2:C:459:ALA:CB	2.24	0.56
2:C:918:LEU:HD13	2:C:968:ASP:HA	1.87	0.56
2:C:944:LEU:C	2:C:946:ARG:H	2.07	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1076:VAL:HG21	3:D:753:SER:HB3	1.88	0.56
2:C:1087:VAL:HG12	2:C:1087:VAL:O	2.06	0.56
3:D:87:ARG:CB	3:D:522:PRO:HG2	2.36	0.56
3:D:616:GLN:O	3:D:617:ASN:HB2	2.04	0.56
1:A:159:LYS:C	1:A:161:ARG:H	2.09	0.56
1:A:185:ARG:NH2	1:A:194:LYS:HE3	2.20	0.56
1:B:188:GLN:HG2	3:D:688:TRP:CD1	2.40	0.56
2:C:151:ASP:HB2	2:C:156:GLY:O	2.04	0.56
2:C:314:THR:O	2:C:315:ALA:CB	2.53	0.56
2:C:681:GLY:HA2	3:D:939:PHE:CE2	2.40	0.56
3:D:502:PHE:CD1	3:D:1452:ILE:HG23	2.40	0.56
3:D:1079:LYS:C	3:D:1081:GLY:H	2.07	0.56
3:D:1266:ARG:O	3:D:1268:PRO:CD	2.54	0.56
1:A:157:GLY:CA	1:A:166:PRO:HB3	2.35	0.56
1:A:198:ARG:HD3	2:C:934:PHE:CZ	2.41	0.56
1:B:94:MET:SD	1:B:97:THR:HG22	2.45	0.56
2:C:100:LEU:CD1	2:C:108:ILE:HB	2.35	0.56
2:C:260:LEU:CD2	2:C:261:LEU:HB3	2.34	0.56
2:C:325:ILE:C	2:C:327:HIS:H	2.07	0.56
2:C:328:LEU:C	2:C:467:ILE:HD13	2.26	0.56
2:C:337:GLY:O	2:C:341:ALA:HB2	2.06	0.56
2:C:605:LYS:HG3	2:C:611:ILE:HA	1.88	0.56
2:C:693:GLU:OE1	2:C:693:GLU:HA	2.06	0.56
3:D:554:LEU:HD11	3:D:571:LYS:HA	1.87	0.56
3:D:795:VAL:N	3:D:862:ASP:CB	2.67	0.56
3:D:1030:GLY:O	3:D:1031:ASN:HB3	2.06	0.56
3:D:1194:CYS:HB3	3:D:1373:ARG:HH21	1.70	0.56
3:D:1381:VAL:HB	3:D:1390:LEU:O	2.06	0.56
4:E:10:PHE:CE2	4:E:16:LYS:HG3	2.41	0.56
1:A:41:ARG:HH21	2:C:860:HIS:CD2	2.24	0.56
1:A:198:ARG:O	1:A:199:ILE:C	2.44	0.56
1:B:78:ILE:HA	1:B:81:ASN:HD22	1.71	0.56
2:C:31:GLN:HG2	2:C:39:ARG:HD2	1.86	0.56
2:C:144:PRO:HA	2:C:162:ILE:HG21	1.87	0.56
2:C:440:PRO:HG2	2:C:453:THR:OG1	2.06	0.56
2:C:498:GLN:H	2:C:502:PRO:CD	2.18	0.56
2:C:1008:ARG:NE	2:C:1010:THR:O	2.39	0.56
3:D:897:GLN:HE21	3:D:897:GLN:HA	1.71	0.56
2:C:183:THR:HG21	2:C:190:LYS:HG3	1.88	0.56
2:C:233:GLU:O	2:C:237:ARG:HG2	2.06	0.56
2:C:263:ASP:OD2	2:C:264:PRO:HD3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:352:ALA:CA	2:C:355:VAL:HG12	2.32	0.56
2:C:395:LYS:CE	2:C:403:SER:HB2	2.35	0.56
2:C:750:LYS:HE3	3:D:680:GLN:HE22	1.71	0.56
2:C:1008:ARG:HH12	2:C:1021:LEU:N	2.04	0.56
3:D:978:TYR:C	3:D:980:MET:N	2.59	0.56
3:D:1280:VAL:CG1	3:D:1281:VAL:H	2.18	0.56
3:D:1353:GLN:HB3	3:D:1357:ARG:HD2	1.87	0.56
3:D:1450:ALA:CA	3:D:1455:LYS:HG3	2.33	0.56
1:B:103:ALA:HB1	1:B:132:LEU:CD1	2.36	0.56
2:C:166:PRO:CB	2:C:417:GLY:H	2.19	0.56
2:C:203:ASP:N	2:C:207:LEU:HB2	2.21	0.56
2:C:731:GLU:O	2:C:733:ALA:N	2.38	0.56
2:C:841:ASN:C	2:C:841:ASN:ND2	2.59	0.56
3:D:699:VAL:HG12	3:D:717:GLN:HG2	1.87	0.56
3:D:808:THR:N	3:D:809:PRO:CD	2.69	0.56
3:D:971:LEU:O	3:D:974:ILE:N	2.36	0.56
3:D:1015:TYR:CB	3:D:1018:ASN:HB2	2.34	0.56
3:D:1031:ASN:HD21	3:D:1034:GLN:HB2	1.71	0.56
1:A:121:GLU:O	1:A:123:MET:N	2.31	0.55
1:A:143:ARG:HG3	1:A:159:LYS:HG3	1.88	0.55
2:C:208:VAL:HG21	2:C:218:VAL:HG13	1.87	0.55
2:C:343:GLN:HG2	2:C:385:PHE:CB	2.36	0.55
2:C:567:GLN:O	2:C:997:LEU:HA	2.06	0.55
2:C:605:LYS:CD	2:C:607:ASP:HA	2.35	0.55
2:C:867:VAL:HG12	2:C:868:ASP:H	1.70	0.55
3:D:99:ALA:HB3	3:D:458:ALA:HB1	1.87	0.55
3:D:603:LEU:HA	3:D:606:ILE:HD13	1.87	0.55
3:D:659:LYS:C	3:D:659:LYS:HD3	2.27	0.55
3:D:904:VAL:HG12	3:D:906:GLN:CD	2.26	0.55
3:D:936:TYR:O	3:D:940:THR:HG22	2.05	0.55
3:D:1437:ALA:HA	3:D:1440:PHE:HD1	1.71	0.55
3:D:1483:PHE:HE1	4:E:22:VAL:HG23	1.72	0.55
1:A:131:THR:HG23	2:C:644:ARG:CZ	2.37	0.55
1:B:94:MET:CE	1:B:94:MET:CB	2.84	0.55
2:C:21:ILE:O	2:C:25:SER:HB2	2.06	0.55
2:C:31:GLN:HG2	2:C:39:ARG:CD	2.35	0.55
2:C:355:VAL:HG13	2:C:356:ARG:N	2.21	0.55
2:C:360:VAL:HG12	2:C:361:MET:N	2.20	0.55
2:C:501:THR:N	2:C:502:PRO:HD2	2.20	0.55
2:C:580:MET:O	2:C:581:THR:HB	2.07	0.55
2:C:595:LEU:HG	2:C:655:LEU:CD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:665:PHE:O	2:C:666:LEU:C	2.44	0.55
2:C:845:ASN:ND2	2:C:884:GLN:OE1	2.36	0.55
3:D:25(U):UNK:HA	3:D:40(U):UNK:O	2.06	0.55
3:D:1008:PHE:CD2	3:D:1008:PHE:O	2.59	0.55
3:D:1109:GLU:CG	3:D:1110:ALA:N	2.68	0.55
3:D:1335:LEU:HD23	3:D:1344:VAL:HG22	1.88	0.55
2:C:549:PHE:HE1	2:C:579:VAL:HG11	1.71	0.55
2:C:603:VAL:HG21	2:C:645:VAL:HA	1.87	0.55
2:C:755:LEU:HB3	2:C:790:LEU:HD23	1.86	0.55
2:C:831:ARG:O	2:C:832:LYS:O	2.25	0.55
3:D:857:LEU:CD1	3:D:858:LEU:H	2.14	0.55
3:D:865:THR:CG2	3:D:866:THR:N	2.69	0.55
3:D:1141:GLU:CA	3:D:1171:VAL:HG11	2.27	0.55
3:D:1429:LEU:HD12	3:D:1429:LEU:O	2.07	0.55
3:D:1475:GLY:C	3:D:1477:GLY:H	2.08	0.55
1:A:198:ARG:NH1	2:C:934:PHE:CE1	2.74	0.55
2:C:30:LEU:O	2:C:32:ALA:N	2.40	0.55
2:C:163:ILE:HG23	2:C:265:LYS:HZ1	1.72	0.55
2:C:177:GLU:CG	2:C:181:VAL:H	2.19	0.55
2:C:304:LEU:HD23	2:C:305:PRO:CD	2.37	0.55
2:C:313:LEU:HD13	2:C:319:GLY:C	2.27	0.55
2:C:796:GLU:HA	3:D:681:ARG:HH22	1.72	0.55
2:C:837:ASP:H	2:C:1001:VAL:HG23	1.71	0.55
3:D:100:ALA:HA	3:D:575:GLN:OE1	2.06	0.55
3:D:502:PHE:CD2	3:D:507:ASN:ND2	2.73	0.55
3:D:675:ARG:HA	3:D:678:GLU:CB	2.37	0.55
3:D:807:ALA:C	3:D:809:PRO:HD3	2.27	0.55
3:D:865:THR:CG2	3:D:866:THR:H	2.18	0.55
3:D:907:GLU:CG	3:D:911:LEU:HD13	2.37	0.55
3:D:1402:ALA:C	3:D:1404:ASN:H	2.10	0.55
1:A:16:GLN:HG3	1:A:20:TYR:CB	2.36	0.55
1:A:122:ILE:O	1:A:122:ILE:HG22	2.06	0.55
1:A:131:THR:O	1:A:131:THR:CG2	2.52	0.55
1:B:173:PRO:HG3	1:B:204:SER:OG	2.06	0.55
2:C:142:ARG:HG2	2:C:147:TYR:OH	2.07	0.55
2:C:754:ILE:HD13	2:C:791:ARG:HE	1.71	0.55
2:C:1009:SER:HB2	3:D:651:GLU:O	2.07	0.55
3:D:681:ARG:O	3:D:682:ASP:CB	2.55	0.55
3:D:728:LEU:HD13	3:D:745:MET:CE	2.36	0.55
3:D:772:PRO:HG2	3:D:772:PRO:O	2.06	0.55
2:C:15:LEU:HD21	2:C:461:VAL:HG21	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:803:ARG:HB3	2:C:825:VAL:HG22	1.88	0.55
2:C:852:ILE:O	2:C:852:ILE:HG12	2.06	0.55
2:C:1073:GLY:HA2	3:D:659:LYS:HE3	1.88	0.55
3:D:648:MET:CE	3:D:747:VAL:HG11	2.36	0.55
3:D:793:THR:HG21	3:D:907:GLU:OE1	2.06	0.55
3:D:864:VAL:H	3:D:876:SER:HG	1.51	0.55
3:D:1069:GLU:HG3	3:D:1072:ILE:CD1	2.35	0.55
3:D:1083:ASP:O	3:D:1086:LEU:N	2.37	0.55
3:D:1283:ILE:HD12	3:D:1312:LEU:HA	1.89	0.55
3:D:1324:PRO:CG	3:D:1325:LEU:H	2.20	0.55
3:D:1459:LEU:CD1	3:D:1470:ARG:NH1	2.69	0.55
3:D:1471:LEU:HG	3:D:1471:LEU:O	2.06	0.55
2:C:881:ASN:ND2	3:D:1034:GLN:CD	2.60	0.55
2:C:1020:PRO:O	2:C:1021:LEU:HG	2.06	0.55
1:B:12:THR:HB	1:B:24:VAL:HB	1.88	0.55
2:C:44:ILE:H	2:C:44:ILE:HD12	1.71	0.55
2:C:327:HIS:O	2:C:329:GLY:N	2.36	0.55
2:C:479:VAL:O	2:C:480:THR:O	2.25	0.55
2:C:688:ILE:HG22	2:C:869:VAL:HG23	1.89	0.55
2:C:816:LYS:HG3	2:C:819:VAL:HG23	1.89	0.55
2:C:1012:PRO:CG	2:C:1023:GLY:HA3	2.37	0.55
3:D:30(U):UNK:O	3:D:31(U):UNK:CB	2.55	0.55
3:D:616:GLN:O	3:D:617:ASN:CB	2.54	0.55
3:D:965:GLU:O	3:D:968:ASP:N	2.40	0.55
1:A:56:VAL:O	1:A:165:ILE:HG12	2.07	0.55
1:A:95:ALA:O	1:A:96:SER:HB3	2.06	0.55
1:B:104:GLU:O	1:B:136:GLY:HA3	2.06	0.55
1:B:143:ARG:HG2	1:B:144:VAL:N	2.21	0.55
2:C:601:GLY:O	2:C:602:GLU:CB	2.54	0.55
2:C:613:VAL:HG11	2:C:619:ARG:HG3	1.87	0.55
2:C:676:ILE:HG21	2:C:873:PRO:HB3	1.87	0.55
2:C:831:ARG:HG2	2:C:1002:GLU:OE2	2.06	0.55
2:C:839:LEU:O	2:C:840:ALA:O	2.25	0.55
2:C:924:LEU:N	2:C:924:LEU:CD2	2.66	0.55
2:C:1005:MET:HG2	3:D:724:GLN:HG3	1.88	0.55
3:D:1281:VAL:HG13	3:D:1314:LYS:CB	2.36	0.55
3:D:1402:ALA:O	3:D:1406:ARG:HB2	2.06	0.55
1:B:62:LEU:HD23	1:B:163:ASN:OD1	2.07	0.55
1:B:78:ILE:HG13	1:B:129:ILE:O	2.07	0.55
2:C:291:VAL:O	2:C:299:LYS:N	2.38	0.55
2:C:552:HIS:CE1	3:D:1064:GLY:HA2	2.42	0.55

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

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

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:478:VAL:C	2:C:479:VAL:HG22	2.29	0.53
2:C:613:VAL:HG22	2:C:620:LEU:N	2.24	0.53
2:C:801:VAL:HG23	2:C:828:ALA:HB2	1.88	0.53
2:C:882:LEU:HD11	2:C:884:GLN:NE2	2.23	0.53
3:D:989:TYR:CZ	3:D:993:ILE:HG13	2.44	0.53
3:D:1043:GLY:CA	3:D:1057:VAL:H	2.17	0.53
3:D:1224:VAL:O	3:D:1224:VAL:HG12	2.08	0.53
3:D:1420:LEU:HD12	3:D:1421:LEU:H	1.72	0.53
3:D:1434:TRP:HD1	3:D:1447:LEU:HD12	1.74	0.53
3:D:1459:LEU:HD12	3:D:1470:ARG:NH1	2.24	0.53
4:E:41:GLU:N	4:E:42:PRO:HD2	2.23	0.53
1:A:6:LEU:C	1:A:8:ALA:N	2.62	0.53
1:B:109:VAL:HG21	1:B:138:LEU:HD23	1.91	0.53
2:C:100:LEU:HD23	2:C:372:LEU:HD12	1.90	0.53
2:C:466:PHE:HD1	2:C:467:ILE:HG13	1.72	0.53
2:C:580:MET:O	2:C:581:THR:O	2.27	0.53
2:C:628:TYR:O	2:C:629:ALA:O	2.26	0.53
2:C:672:VAL:O	2:C:991:GLN:HA	2.08	0.53
2:C:1076:VAL:HG21	3:D:753:SER:CB	2.38	0.53
3:D:571:LYS:C	3:D:573:MET:N	2.62	0.53
3:D:715:ALA:O	3:D:764:LEU:HD12	2.07	0.53
3:D:916:TYR:CD2	3:D:917:GLN:N	2.76	0.53
3:D:949:ILE:O	3:D:949:ILE:HG22	2.08	0.53
3:D:1041:MET:HG2	3:D:1042:ARG:N	2.24	0.53
1:A:31:GLY:N	1:A:193:ASP:OD2	2.37	0.53
1:B:33:GLY:HA3	1:B:181:VAL:HG21	1.90	0.53
2:C:102:HIS:HD2	2:C:106:GLY:HA3	1.72	0.53
2:C:118:LEU:HD23	2:C:118:LEU:C	2.28	0.53
2:C:376:ARG:N	2:C:377:PRO:CD	2.62	0.53
2:C:440:PRO:HG3	2:C:454:SER:CA	2.38	0.53
2:C:449:ILE:O	2:C:451:LEU:N	2.41	0.53
2:C:839:LEU:O	2:C:994:ILE:HG22	2.08	0.53
2:C:892:LEU:HD23	2:C:893:ALA:N	2.22	0.53
2:C:1103:ASP:O	2:C:1104:GLU:C	2.47	0.53
3:D:643:GLY:CA	3:D:727:GLN:HB2	2.39	0.53
3:D:792:ILE:HG12	3:D:941:LEU:HG	1.91	0.53
3:D:879:ARG:NE	3:D:904:VAL:H	2.06	0.53
3:D:1311:LEU:H	3:D:1311:LEU:HD12	1.73	0.53
3:D:1393:GLN:HE21	3:D:1420:LEU:HD21	1.74	0.53
1:A:131:THR:HG23	2:C:644:ARG:NE	2.23	0.53
2:C:443:THR:H	2:C:444:PRO:CD	2.21	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:589:ARG:HH12	2:C:596:TYR:CB	2.22	0.53
2:C:718:GLY:HA3	2:C:761:PHE:CG	2.43	0.53
2:C:1019:GLN:HB2	3:D:622:ARG:HB2	1.91	0.53
3:D:89:ARG:O	3:D:520:LEU:HD21	2.07	0.53
3:D:542:ASP:O	3:D:544:TYR:N	2.42	0.53
3:D:634:GLY:O	3:D:636:GLN:N	2.42	0.53
3:D:876:SER:CA	3:D:879:ARG:HG3	2.38	0.53
3:D:1231:GLU:HB3	3:D:1232:PRO:CD	2.32	0.53
4:E:63:TRP:O	4:E:66:LYS:N	2.40	0.53
1:B:207:PRO:O	1:B:210:ALA:N	2.42	0.53
2:C:144:PRO:HA	2:C:162:ILE:HG22	1.89	0.53
2:C:240:THR:O	2:C:240:THR:HG22	2.09	0.53
2:C:759:THR:HB	2:C:785:VAL:HG11	1.89	0.53
2:C:841:ASN:HD21	2:C:845:ASN:H	1.55	0.53
2:C:987:ILE:HD11	3:D:946:GLY:CA	2.38	0.53
3:D:563:PRO:O	3:D:565:ILE:N	2.42	0.53
3:D:578:VAL:C	3:D:580:ALA:N	2.62	0.53
3:D:910:SER:O	3:D:911:LEU:C	2.46	0.53
2:C:111:ASP:O	2:C:113:VAL:N	2.34	0.53
2:C:218:VAL:O	2:C:221:LEU:N	2.42	0.53
2:C:336:VAL:O	2:C:339:LEU:N	2.41	0.53
2:C:552:HIS:CE1	3:D:1064:GLY:CA	2.92	0.53
2:C:811:PRO:O	2:C:813:VAL:N	2.41	0.53
2:C:840:ALA:HB2	2:C:846:LYS:HA	1.91	0.53
3:D:468:LEU:O	3:D:471:GLU:HG2	2.09	0.53
3:D:809:PRO:C	3:D:811:GLU:N	2.62	0.53
3:D:1402:ALA:O	3:D:1404:ASN:N	2.42	0.53
1:A:41:ARG:HH11	1:A:41:ARG:CB	2.21	0.53
1:A:41:ARG:HE	2:C:860:HIS:CE1	2.26	0.53
1:A:52:ALA:HB3	1:A:171:PHE:CD1	2.44	0.53
1:A:225:PHE:HE1	1:B:36:LEU:HD13	1.73	0.53
1:B:53:VAL:CG2	1:B:85:LEU:HD23	2.40	0.53
1:B:58:ILE:HA	1:B:139:TYR:O	2.09	0.53
1:B:174:VAL:HA	1:B:201:THR:HB	1.90	0.53
2:C:17:PRO:O	2:C:18:LEU:CB	2.56	0.53
2:C:257:LEU:O	2:C:260:LEU:N	2.41	0.53
2:C:290:LEU:HD12	2:C:291:VAL:N	2.21	0.53
2:C:308:ARG:O	2:C:310:LEU:N	2.42	0.53
2:C:564:MET:CE	2:C:846:LYS:HB3	2.39	0.53
2:C:577:PRO:HG2	2:C:580:MET:CB	2.38	0.53
2:C:1017:THR:O	2:C:1018:GLN:CB	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1095:LEU:HD11	3:D:603:LEU:HB3	1.91	0.53
3:D:811:GLU:HA	3:D:814:ALA:CB	2.24	0.53
3:D:971:LEU:O	3:D:974:ILE:HG22	2.09	0.53
3:D:1015:TYR:HA	3:D:1018:ASN:HD22	1.74	0.53
3:D:1260:ILE:HG22	3:D:1261:GLU:N	2.23	0.53
1:A:26:GLU:OE2	1:A:185:ARG:NH2	2.42	0.52
1:A:74:ASP:C	1:A:74:ASP:OD1	2.46	0.52
1:B:14:THR:HB	1:B:22:GLU:HB3	1.90	0.52
1:B:179:PHE:CB	1:B:197:LEU:HD12	2.39	0.52
2:C:163:ILE:HG21	2:C:169:GLY:CA	2.39	0.52
2:C:921:ALA:HA	2:C:924:LEU:HG	1.92	0.52
3:D:509:PRO:HA	3:D:511:TRP:CD1	2.44	0.52
3:D:542:ASP:O	3:D:545:ARG:N	2.41	0.52
3:D:638:LYS:CB	3:D:932:ASP:OD1	2.57	0.52
3:D:705:ALA:HB3	3:D:706:PRO:HD2	1.91	0.52
3:D:965:GLU:C	3:D:968:ASP:H	2.13	0.52
3:D:1043:GLY:O	3:D:1057:VAL:HG23	2.08	0.52
3:D:1192:LEU:CD2	3:D:1369:GLU:HB3	2.39	0.52
4:E:3:GLU:HG3	4:E:6:ILE:HD11	1.91	0.52
1:A:162:ILE:HG12	1:A:163:ASN:CG	2.30	0.52
1:A:186:LEU:O	1:A:187:GLY:C	2.46	0.52
1:B:79:ILE:HG23	1:B:167:VAL:CG1	2.40	0.52
1:B:203:GLY:O	1:B:204:SER:CB	2.58	0.52
2:C:232:GLU:C	2:C:234:ALA:N	2.61	0.52
2:C:501:THR:N	2:C:502:PRO:CD	2.73	0.52
2:C:507:ARG:O	2:C:518:ARG:HA	2.09	0.52
2:C:552:HIS:NE2	2:C:886:LEU:HD12	2.24	0.52
2:C:600:ASP:C	2:C:648:ARG:HB2	2.28	0.52
3:D:502:PHE:HE1	3:D:1452:ILE:CG1	2.17	0.52
3:D:890:VAL:HG13	3:D:922:LEU:HD13	1.90	0.52
3:D:1082:ALA:O	3:D:1085:ALA:HB3	2.09	0.52
3:D:1119:SER:HA	3:D:1186:VAL:O	2.09	0.52
3:D:1216:SER:OG	4:E:16:LYS:N	2.42	0.52
3:D:1223:VAL:O	3:D:1227:GLU:HG3	2.10	0.52
3:D:1439:SER:OG	3:D:1467:ILE:HD11	2.09	0.52
4:E:25:LYS:O	4:E:25:LYS:HD3	2.08	0.52
2:C:874:LEU:O	2:C:876:VAL:N	2.42	0.52
3:D:115:LEU:C	3:D:117:ASP:N	2.59	0.52
3:D:569:ASN:O	3:D:572:ARG:HG2	2.10	0.52
3:D:764:LEU:HD21	3:D:766:ALA:HB3	1.92	0.52
3:D:1274:ILE:HD11	3:D:1334:GLN:NE2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1365:ASP:C	3:D:1366:LYS:HG3	2.29	0.52
1:A:76:VAL:HG21	2:C:628:TYR:OH	2.09	0.52
1:A:101:LEU:O	1:A:139:TYR:HA	2.09	0.52
1:A:121:GLU:HB3	1:A:123:MET:HE3	1.91	0.52
2:C:68:PHE:CD2	2:C:98:LEU:HD22	2.43	0.52
2:C:603:VAL:O	2:C:604:VAL:CB	2.58	0.52
2:C:642:ARG:O	2:C:643:VAL:HB	2.09	0.52
2:C:922:PHE:CD2	2:C:964:LYS:HG3	2.45	0.52
2:C:953:VAL:HG23	2:C:966:LEU:HD13	1.91	0.52
2:C:1045:ALA:CB	2:C:1048:THR:HB	2.28	0.52
3:D:494:LYS:O	3:D:497:GLU:HB2	2.08	0.52
3:D:495:ARG:O	3:D:499:VAL:N	2.28	0.52
3:D:885:ILE:HG12	3:D:937:TYR:CE2	2.44	0.52
3:D:1202:GLN:O	3:D:1203:LYS:CB	2.57	0.52
3:D:1251:ASP:O	3:D:1253:THR:N	2.40	0.52
4:E:9:LEU:HD23	4:E:69:LEU:HD13	1.90	0.52
1:A:9:PRO:HA	1:A:27:PRO:HD2	1.91	0.52
1:A:16:GLN:HA	1:A:16:GLN:HE21	1.75	0.52
1:B:199:ILE:HG22	1:B:207:PRO:HB3	1.90	0.52
2:C:146:VAL:HG22	2:C:161:SER:HA	1.91	0.52
2:C:552:HIS:ND1	3:D:1064:GLY:HA2	2.25	0.52
2:C:626:ARG:NE	2:C:637:PHE:CZ	2.76	0.52
2:C:820:ARG:O	2:C:821:GLU:O	2.27	0.52
2:C:959:PRO:CG	2:C:960:GLU:H	2.18	0.52
3:D:545:ARG:CG	3:D:546:ARG:N	2.72	0.52
3:D:658:LEU:HA	3:D:661:MET:CE	2.39	0.52
3:D:863:THR:C	3:D:864:VAL:HG23	2.30	0.52
3:D:927:THR:O	3:D:931:LEU:HD23	2.09	0.52
3:D:1399:ASP:OD2	3:D:1417:TRP:HB3	2.10	0.52
1:B:148:VAL:HG23	1:B:149:GLY:H	1.74	0.52
2:C:445:GLU:HG3	5:C:1640:RFP:H303	1.90	0.52
2:C:568:ALA:O	2:C:569:VAL:HG12	2.10	0.52
3:D:783:ARG:O	3:D:784:ASP:CB	2.49	0.52
3:D:1292:VAL:HG23	3:D:1305:LEU:HD23	1.91	0.52
3:D:1437:ALA:HA	3:D:1440:PHE:CD1	2.45	0.52
1:A:56:VAL:HG13	1:A:167:VAL:CG2	2.40	0.52
1:B:59:GLU:O	1:B:60:ASP:CB	2.58	0.52
1:B:132:LEU:N	1:B:132:LEU:CD2	2.73	0.52
2:C:141:HIS:HE1	2:C:334:ARG:HG3	1.75	0.52
2:C:613:VAL:HG22	2:C:621:VAL:N	2.24	0.52
2:C:671:ASN:HB3	2:C:993:PHE:HB2	1.92	0.52

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

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:729:HIS:O	3:D:731:LEU:N	2.44	0.51
3:D:808:THR:HG22	3:D:808:THR:O	2.09	0.51
3:D:1330:ILE:O	3:D:1331:ASP:C	2.49	0.51
1:B:118:ALA:C	1:B:120:VAL:H	2.13	0.51
2:C:8:ARG:O	2:C:494:TYR:OH	2.27	0.51
2:C:15:LEU:HD21	2:C:461:VAL:CB	2.41	0.51
2:C:443:THR:H	2:C:444:PRO:HD3	1.76	0.51
2:C:460:ARG:HG3	2:C:461:VAL:N	2.26	0.51
2:C:548:PRO:HG3	2:C:842:ARG:NH2	2.25	0.51
2:C:631:SER:OG	2:C:636:ALA:N	2.31	0.51
2:C:699:PHE:O	2:C:701:THR:N	2.43	0.51
2:C:713:ARG:HH12	2:C:816:LYS:HG2	1.74	0.51
2:C:1034:GLU:O	2:C:1037:VAL:N	2.43	0.51
3:D:486:ARG:CG	3:D:487:ALA:H	2.22	0.51
3:D:1038:LEU:O	3:D:1060:SER:O	2.28	0.51
3:D:1397:LYS:HD2	3:D:1400:VAL:HB	1.92	0.51
1:A:196:THR:O	1:A:196:THR:OG1	2.26	0.51
2:C:282:GLY:O	2:C:283:VAL:CB	2.59	0.51
2:C:310:LEU:O	2:C:313:LEU:HB3	2.10	0.51
2:C:430:VAL:O	2:C:431:HIS:C	2.49	0.51
2:C:874:LEU:CD2	3:D:784:ASP:CA	2.88	0.51
2:C:976:ASP:O	2:C:978:ARG:N	2.44	0.51
3:D:999:THR:HG23	3:D:1000:THR:N	2.26	0.51
3:D:1088:THR:O	3:D:1091:SER:HB3	2.10	0.51
3:D:1110:ALA:HA	3:D:1202:GLN:O	2.10	0.51
3:D:1166:LEU:HD22	3:D:1166:LEU:H	1.75	0.51
1:B:205:VAL:HG12	1:B:206:THR:N	2.26	0.51
2:C:758:ARG:HG3	2:C:758:ARG:NH1	2.25	0.51
2:C:1034:GLU:OE2	3:D:1096:ARG:NH1	2.44	0.51
3:D:542:ASP:O	3:D:545:ARG:HG2	2.10	0.51
3:D:879:ARG:CZ	3:D:904:VAL:CA	2.88	0.51
3:D:1251:ASP:C	3:D:1253:THR:N	2.62	0.51
4:E:41:GLU:N	4:E:42:PRO:CD	2.74	0.51
1:A:105:GLY:O	1:A:133:GLU:HA	2.10	0.51
1:A:158:ILE:HG13	1:A:161:ARG:CG	2.41	0.51
2:C:333:ILE:HG21	2:C:460:ARG:NH2	2.26	0.51
2:C:401:LEU:HD21	2:C:543:ASN:HB2	1.92	0.51
2:C:676:ILE:HG22	2:C:677:MET:N	2.25	0.51
2:C:729:LEU:HD21	2:C:754:ILE:CD1	2.40	0.51
2:C:755:LEU:HD13	2:C:755:LEU:C	2.31	0.51
2:C:925:TYR:OH	2:C:972:VAL:HG21	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:981:GLU:HB3	2:C:982:PRO:CD	2.41	0.51
2:C:1101:THR:HB	2:C:1110:ASP:CB	2.41	0.51
3:D:489:ARG:O	3:D:493:ARG:HG2	2.11	0.51
3:D:643:GLY:HA3	3:D:727:GLN:HB2	1.92	0.51
3:D:645:PRO:HB3	3:D:724:GLN:H	1.76	0.51
3:D:1150:ALA:O	3:D:1151:ARG:HB2	2.10	0.51
3:D:1228:SER:O	3:D:1232:PRO:HD2	2.11	0.51
1:A:72:LYS:O	1:A:73:GLU:O	2.29	0.51
1:B:64:GLU:HA	1:B:75:VAL:HG11	1.93	0.51
1:B:97:THR:HG21	1:B:120:VAL:CG2	2.30	0.51
2:C:115:LEU:CG	2:C:116:GLY:H	2.24	0.51
2:C:254:LEU:C	2:C:256:TYR:H	2.12	0.51
2:C:428:ARG:O	2:C:429:ASP:CB	2.59	0.51
2:C:564:MET:HG3	2:C:997:LEU:CD1	2.39	0.51
2:C:796:GLU:CG	3:D:681:ARG:HH22	2.24	0.51
2:C:943:VAL:O	2:C:944:LEU:C	2.49	0.51
2:C:950:LEU:C	3:D:1018:ASN:HD21	2.14	0.51
2:C:1008:ARG:O	3:D:652:LEU:HD13	2.11	0.51
2:C:1059:ASP:HA	2:C:1083:GLU:CB	2.41	0.51
3:D:905:PRO:HG2	3:D:906:GLN:N	2.26	0.51
3:D:1277:ILE:CG2	3:D:1279:GLY:H	2.24	0.51
3:D:1457:ASP:C	3:D:1459:LEU:H	2.14	0.51
4:E:17:TYR:N	4:E:17:TYR:CD1	2.77	0.51
1:A:42:ARG:HD3	2:C:977:GLY:O	2.12	0.50
1:B:114:PHE:O	1:B:116:PRO:N	2.44	0.50
2:C:139:GLN:NE2	2:C:334:ARG:NH2	2.59	0.50
2:C:183:THR:CG2	2:C:190:LYS:HG3	2.40	0.50
2:C:201:GLY:O	2:C:203:ASP:OD2	2.29	0.50
2:C:354:GLY:O	2:C:357:GLU:HB3	2.11	0.50
2:C:637:PHE:HB2	2:C:659:PRO:CB	2.41	0.50
3:D:117:ASP:C	3:D:119:SER:N	2.65	0.50
3:D:521:PRO:N	3:D:522:PRO:CD	2.73	0.50
3:D:729:HIS:HE1	3:D:935:LYS:HD3	1.75	0.50
3:D:795:VAL:HG12	3:D:796:ARG:H	1.75	0.50
3:D:1105:ILE:HG21	3:D:1370:ILE:HG23	1.92	0.50
3:D:1107:VAL:HG12	3:D:1217:ILE:HD13	1.92	0.50
3:D:1353:GLN:O	3:D:1356:TYR:N	2.43	0.50
3:D:1483:PHE:CE2	4:E:18:ARG:NE	2.79	0.50
4:E:77:GLU:OE1	4:E:77:GLU:HA	2.11	0.50
1:A:6:LEU:O	1:A:8:ALA:N	2.45	0.50
2:C:148:PHE:HE2	2:C:310:LEU:CA	2.23	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:377:PRO:O	2:C:379:GLU:O	2.27	0.50
2:C:743:VAL:HG13	2:C:744:ARG:N	2.26	0.50
2:C:796:GLU:HG2	3:D:681:ARG:NH1	2.25	0.50
3:D:690:ALA:O	3:D:694:VAL:HG23	2.11	0.50
3:D:968:ASP:HA	3:D:971:LEU:HB2	1.94	0.50
4:E:28:GLN:O	4:E:28:GLN:HG2	2.11	0.50
4:E:48:MET:O	4:E:49:ARG:HG3	2.12	0.50
2:C:15:LEU:HD22	2:C:471:TYR:OH	2.11	0.50
2:C:35:PRO:C	2:C:37:GLU:H	2.12	0.50
2:C:66:LEU:HD11	2:C:98:LEU:HB2	1.94	0.50
2:C:137:VAL:HG12	2:C:411:SER:HB2	1.93	0.50
2:C:415:PRO:O	2:C:416:GLY:O	2.29	0.50
2:C:1082:PRO:HG2	2:C:1085:PHE:HB3	1.93	0.50
3:D:1252:ILE:C	3:D:1254:GLN:N	2.64	0.50
3:D:1273:VAL:H	3:D:1324:PRO:CG	2.22	0.50
3:D:1459:LEU:HD12	3:D:1470:ARG:HH11	1.76	0.50
4:E:27:ALA:HB1	4:E:60:ALA:CB	2.41	0.50
1:A:56:VAL:HG13	1:A:167:VAL:HG23	1.94	0.50
1:B:58:ILE:HG23	1:B:140:MET:CG	2.42	0.50
1:B:58:ILE:O	1:B:59:GLU:C	2.49	0.50
1:B:68:ILE:N	1:B:68:ILE:HD12	2.27	0.50
2:C:118:LEU:HD23	2:C:119:PRO:O	2.10	0.50
2:C:186:VAL:HG11	2:C:258:PHE:CD2	2.47	0.50
2:C:263:ASP:CG	2:C:264:PRO:HD3	2.31	0.50
2:C:348:LEU:HA	2:C:351:LEU:HB3	1.93	0.50
2:C:407:LYS:C	2:C:409:ARG:H	2.13	0.50
2:C:492:ASP:H	2:C:532:MET:N	2.08	0.50
2:C:492:ASP:N	2:C:532:MET:H	2.05	0.50
2:C:613:VAL:CB	2:C:619:ARG:HG2	2.41	0.50
3:D:492:ALA:O	3:D:495:ARG:HB2	2.11	0.50
3:D:824:ASN:O	3:D:825:ALA:C	2.50	0.50
3:D:908:LYS:HG3	3:D:1027:GLY:HA2	1.90	0.50
3:D:1008:PHE:HE1	3:D:1035:ILE:CG1	2.18	0.50
3:D:1118:ILE:CD1	3:D:1190:SER:H	2.24	0.50
3:D:1322:GLY:O	3:D:1323:GLN:CB	2.58	0.50
1:A:34:VAL:O	1:A:35:THR:C	2.48	0.50
1:B:49:PRO:HD2	1:B:213:GLN:HE21	1.76	0.50
1:B:144:VAL:HG12	1:B:145:ASP:H	1.76	0.50
1:B:199:ILE:O	1:B:199:ILE:CG2	2.59	0.50
2:C:7:GLY:O	2:C:8:ARG:HG3	2.12	0.50
2:C:393:GLN:HE22	5:C:1640:RFP:C8	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:502:PRO:O	2:C:507:ARG:CZ	2.59	0.50
3:D:506:GLY:O	3:D:507:ASN:CB	2.59	0.50
3:D:795:VAL:HA	3:D:862:ASP:CB	2.41	0.50
3:D:879:ARG:NH2	3:D:904:VAL:CA	2.63	0.50
3:D:1118:ILE:HD11	3:D:1190:SER:H	1.76	0.50
3:D:1363:LEU:O	3:D:1363:LEU:HD23	2.11	0.50
3:D:1381:VAL:O	3:D:1382:THR:HG23	2.11	0.50
3:D:1449:GLU:O	3:D:1450:ALA:C	2.50	0.50
1:A:218:LEU:O	1:A:222:LEU:HD23	2.12	0.50
1:B:40:LEU:O	1:B:44:LEU:HB2	2.11	0.50
1:B:151:VAL:CG2	1:B:169:ALA:HB3	2.36	0.50
1:B:202:ASP:C	1:B:204:SER:N	2.64	0.50
2:C:65:VAL:HB	2:C:101:ILE:CG1	2.42	0.50
2:C:342:ASP:N	2:C:345:ARG:HH11	2.10	0.50
2:C:352:ALA:HA	2:C:355:VAL:CG1	2.37	0.50
2:C:902:ILE:O	2:C:902:ILE:HG22	2.10	0.50
2:C:1106:ASP:C	2:C:1108:PRO:HD3	2.32	0.50
3:D:612:GLY:C	3:D:614:PHE:N	2.63	0.50
3:D:853:VAL:HG11	3:D:860:LEU:HB2	1.93	0.50
3:D:885:ILE:CD1	3:D:937:TYR:HD2	2.24	0.50
3:D:1004:THR:HG22	3:D:1005:GLN:N	2.27	0.50
3:D:1007:VAL:HG13	3:D:1008:PHE:N	2.26	0.50
3:D:1276:GLU:CD	3:D:1301:LYS:HE2	2.32	0.50
3:D:1347:TYR:CZ	3:D:1351:GLU:HG2	2.46	0.50
1:A:67:THR:O	1:A:69:PRO:HD3	2.12	0.50
1:A:108:GLU:HG3	2:C:644:ARG:HH22	1.77	0.50
1:B:23:PHE:CD1	1:B:211:LEU:HD22	2.47	0.50
2:C:148:PHE:CE2	2:C:310:LEU:HA	2.47	0.50
2:C:220:GLY:HA2	2:C:223:ASP:OD2	2.10	0.50
2:C:277:ALA:O	2:C:281:LEU:N	2.36	0.50
2:C:482:GLU:HA	2:C:486:MET:HE1	1.94	0.50
2:C:662:GLU:O	2:C:663:GLU:CB	2.58	0.50
2:C:710:ILE:HG21	2:C:758:ARG:HD2	1.92	0.50
2:C:755:LEU:HD23	2:C:792:VAL:HG23	1.92	0.50
2:C:798:GLY:O	2:C:827:VAL:HG13	2.12	0.50
3:D:1250:THR:HG23	3:D:1269:LYS:CD	2.39	0.50
3:D:1347:TYR:OH	3:D:1351:GLU:HG2	2.11	0.50
3:D:1436:SER:CB	3:D:1464:GLU:HG2	2.41	0.50
3:D:1490:ARG:C	3:D:1492:LEU:H	2.15	0.50
1:A:41:ARG:HB3	1:A:41:ARG:CZ	2.40	0.50
1:A:157:GLY:O	1:A:158:ILE:C	2.50	0.50

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:40(U):UNK:O	3:D:41(U):UNK:O	2.30	0.49
3:D:502:PHE:HD1	3:D:1452:ILE:HG23	1.77	0.49
3:D:732:VAL:O	3:D:733:CYS:C	2.49	0.49
3:D:936:TYR:C	3:D:936:TYR:CD2	2.86	0.49
3:D:1353:GLN:NE2	3:D:1368:ILE:HD11	2.08	0.49
1:A:77:GLU:O	1:A:80:LEU:N	2.45	0.49
1:B:132:LEU:HD23	1:B:132:LEU:H	1.77	0.49
2:C:181:VAL:CG1	2:C:182:VAL:HG23	2.40	0.49
2:C:226:VAL:HG23	2:C:227:LEU:N	2.27	0.49
2:C:474:VAL:HG22	2:C:530:GLU:CB	2.43	0.49
2:C:483:VAL:O	2:C:485:TYR:N	2.46	0.49
2:C:571:LEU:CD2	2:C:670:GLN:HG3	2.40	0.49
2:C:691:SER:O	2:C:692:GLU:C	2.49	0.49
2:C:747:ALA:O	2:C:800:VAL:HG23	2.12	0.49
3:D:9(U):UNK:O	3:D:10(U):UNK:CB	2.60	0.49
3:D:935:LYS:HG3	3:D:939:PHE:CE1	2.48	0.49
3:D:1321:ALA:O	3:D:1324:PRO:HD2	2.12	0.49
1:A:150:TYR:HB2	2:C:696:LYS:HE2	1.93	0.49
2:C:163:ILE:HG21	2:C:169:GLY:C	2.33	0.49
2:C:198:ARG:C	2:C:198:ARG:HD3	2.32	0.49
2:C:263:ASP:CB	2:C:264:PRO:HD3	2.42	0.49
2:C:598:GLU:HG3	2:C:614:ARG:NH2	2.28	0.49
2:C:727:PRO:C	2:C:729:LEU:H	2.14	0.49
2:C:872:ASN:HD21	2:C:874:LEU:HB3	1.77	0.49
3:D:633:VAL:HA	3:D:740:PHE:CZ	2.47	0.49
3:D:684:LYS:HE2	3:D:685:ASP:OD2	2.12	0.49
3:D:973:GLN:O	3:D:977:ALA:HB2	2.13	0.49
3:D:996:TRP:HA	3:D:999:THR:CG2	2.42	0.49
1:A:111:ALA:HB2	1:A:127:LEU:HB3	1.93	0.49
2:C:44:ILE:HG22	2:C:45:GLN:N	2.27	0.49
2:C:45:GLN:O	2:C:48:PHE:HB2	2.12	0.49
2:C:164:PRO:HD3	2:C:267:TYR:CE2	2.48	0.49
2:C:328:LEU:O	2:C:484:VAL:HG11	2.12	0.49
3:D:1327:ARG:CB	3:D:1327:ARG:HH11	2.25	0.49
3:D:1331:ASP:O	3:D:1334:GLN:N	2.28	0.49
1:A:38:ASN:HB3	1:A:39:PRO:HD3	1.95	0.49
1:B:14:THR:HG22	1:B:14:THR:O	2.12	0.49
2:C:910:THR:CG2	2:C:912:PRO:HD2	2.40	0.49
3:D:687:VAL:O	3:D:690:ALA:CB	2.60	0.49
3:D:739:ASP:O	3:D:741:ASP:N	2.46	0.49
3:D:764:LEU:HB3	3:D:767:HIS:CD2	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:864:VAL:HG12	3:D:874:GLU:O	2.13	0.49
3:D:879:ARG:HH22	3:D:905:PRO:HD2	1.78	0.49
3:D:1017:PHE:O	3:D:1019:PRO:N	2.46	0.49
1:A:77:GLU:OE2	2:C:640:ARG:NH1	2.46	0.49
1:B:80:LEU:HB3	3:D:839:LEU:CB	2.42	0.49
2:C:12:VAL:HG21	2:C:479:VAL:CG1	2.43	0.49
2:C:89:THR:HG23	2:C:129:ILE:HG23	1.94	0.49
2:C:100:LEU:CD1	2:C:369:PRO:HD3	2.42	0.49
2:C:142:ARG:HG2	2:C:147:TYR:CE1	2.47	0.49
2:C:344:PHE:HE2	2:C:378:LEU:HD23	1.77	0.49
2:C:636:ALA:HB2	2:C:705:ILE:CD1	2.42	0.49
2:C:676:ILE:C	3:D:948:THR:HG22	2.32	0.49
2:C:969:LEU:CD2	3:D:952:ASP:HB2	2.40	0.49
2:C:1053:LEU:HD13	3:D:621:LYS:HD2	1.94	0.49
3:D:97:THR:O	3:D:571:LYS:HE3	2.13	0.49
3:D:552:ASN:C	3:D:554:LEU:N	2.66	0.49
3:D:1156:LEU:HB3	3:D:1173:PHE:HE1	1.77	0.49
3:D:1429:LEU:HD13	3:D:1440:PHE:CD2	2.47	0.49
1:A:41:ARG:HG2	1:A:177:VAL:CB	2.43	0.49
1:A:41:ARG:NH2	2:C:860:HIS:CD2	2.81	0.49
1:B:46:SER:O	1:B:47:SER:C	2.50	0.49
1:B:94:MET:HE1	1:B:119:ASP:O	2.13	0.49
2:C:149:THR:HG23	2:C:323:ASP:CB	2.42	0.49
2:C:173:ASP:HB3	2:C:185:LYS:HE3	1.95	0.49
2:C:559:LEU:C	2:C:559:LEU:CD1	2.80	0.49
2:C:875:GLY:HA2	2:C:879:ARG:CG	2.39	0.49
2:C:889:HIS:HE1	3:D:951:ILE:N	2.03	0.49
2:C:1030:GLN:NE2	3:D:628:ARG:HD3	2.25	0.49
3:D:583:ASP:O	3:D:585:GLY:N	2.46	0.49
3:D:1034:GLN:HE22	3:D:1037:GLN:NE2	2.11	0.49
3:D:1324:PRO:CD	3:D:1325:LEU:H	2.25	0.49
3:D:1394:VAL:CG1	3:D:1395:LEU:N	2.75	0.49
1:A:9:PRO:HB2	1:A:25:LEU:HD13	1.93	0.49
1:A:15:THR:HG22	1:B:230:ALA:CB	2.34	0.49
1:B:57:TYR:CD2	1:B:58:ILE:N	2.81	0.49
2:C:286:SER:O	2:C:288:ARG:N	2.46	0.49
2:C:325:ILE:C	2:C:327:HIS:N	2.66	0.49
2:C:421:GLU:O	2:C:422:ARG:C	2.50	0.49
2:C:551:GLU:O	3:D:1065:LEU:HB3	2.13	0.49
2:C:691:SER:O	2:C:693:GLU:N	2.45	0.49
2:C:705:ILE:HD12	2:C:705:ILE:N	2.26	0.49

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:836:GLY:O	2:C:837:ASP:O	2.31	0.48
3:D:1277:ILE:HG22	3:D:1278:ASP:H	1.76	0.48
1:A:62:LEU:CD1	2:C:745:ILE:HB	2.43	0.48
2:C:725:ASP:OD1	2:C:725:ASP:O	2.31	0.48
2:C:839:LEU:HD23	2:C:849:VAL:CG2	2.42	0.48
2:C:872:ASN:HD21	2:C:874:LEU:CB	2.26	0.48
2:C:900:ARG:C	2:C:901:TYR:CD1	2.86	0.48
2:C:946:ARG:HG2	2:C:946:ARG:NH1	2.29	0.48
3:D:28:LYS:O	3:D:548:ILE:HG21	2.13	0.48
3:D:626:SER:OG	3:D:748:HIS:N	2.46	0.48
3:D:961:GLN:O	3:D:964:LEU:O	2.30	0.48
3:D:1008:PHE:O	3:D:1008:PHE:HD2	1.96	0.48
3:D:1223:VAL:C	3:D:1225:ALA:H	2.16	0.48
2:C:134:ARG:HB3	2:C:393:GLN:O	2.14	0.48
3:D:552:ASN:C	3:D:555:LYS:H	2.16	0.48
3:D:669:ASN:OD1	3:D:670:VAL:N	2.47	0.48
3:D:853:VAL:HG13	3:D:858:LEU:O	2.13	0.48
3:D:935:LYS:O	3:D:936:TYR:C	2.52	0.48
3:D:1102:ALA:O	3:D:1103:HIS:O	2.31	0.48
3:D:1476:THR:HG22	4:E:21:VAL:CG2	2.43	0.48
1:A:80:LEU:HD11	2:C:572:ILE:HG21	1.96	0.48
1:A:152:PRO:O	1:A:154:GLU:N	2.44	0.48
1:A:158:ILE:HG23	1:A:159:LYS:N	2.22	0.48
1:B:128:HIS:O	1:B:129:ILE:HB	2.13	0.48
1:B:185:ARG:CB	1:B:190:THR:HA	2.43	0.48
2:C:142:ARG:HD2	2:C:324:ASP:HA	1.95	0.48
2:C:278:GLU:HG3	2:C:284:GLY:N	2.22	0.48
2:C:304:LEU:H	2:C:305:PRO:CD	2.26	0.48
2:C:324:ASP:C	2:C:326:ASP:N	2.66	0.48
2:C:493:ARG:NH1	3:D:1069:GLU:OE2	2.47	0.48
2:C:674:VAL:CG2	2:C:675:ALA:H	2.26	0.48
2:C:800:VAL:O	2:C:800:VAL:HG12	2.12	0.48
2:C:816:LYS:HB3	2:C:819:VAL:HG21	1.96	0.48
2:C:1059:ASP:HA	2:C:1083:GLU:OE1	2.13	0.48
3:D:646:LYS:HB3	3:D:720:LEU:HD23	1.96	0.48
3:D:699:VAL:N	3:D:756:GLN:HE22	1.99	0.48
3:D:1278:ASP:HA	3:D:1318:TYR:CA	2.36	0.48
3:D:1311:LEU:O	3:D:1323:GLN:OE1	2.30	0.48
3:D:1316:GLY:O	3:D:1317:ASP:CB	2.61	0.48
1:B:44:LEU:HG	1:B:199:ILE:CD1	2.40	0.48
1:B:44:LEU:CD2	1:B:199:ILE:HD11	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:157:GLY:HA3	1:B:166:PRO:HB3	1.95	0.48
1:B:184:THR:HG21	1:B:194:LYS:HD3	1.96	0.48
2:C:208:VAL:HG12	2:C:209:ARG:N	2.29	0.48
2:C:208:VAL:HG21	2:C:218:VAL:CG1	2.43	0.48
2:C:255:ALA:O	2:C:298:PHE:HE2	1.97	0.48
2:C:476:ASN:O	2:C:477:GLY:C	2.51	0.48
2:C:573:ARG:O	2:C:670:GLN:HG2	2.13	0.48
2:C:574:ALA:O	2:C:575:GLN:HG3	2.14	0.48
2:C:648:ARG:O	2:C:653:ASP:HB2	2.14	0.48
2:C:705:ILE:HA	2:C:827:VAL:O	2.13	0.48
2:C:860:HIS:HD2	2:C:977:GLY:HA3	1.77	0.48
2:C:948:GLU:HA	2:C:953:VAL:H	1.77	0.48
2:C:1054:THR:C	2:C:1056:LYS:N	2.64	0.48
3:D:669:ASN:OD1	3:D:671:LYS:HG2	2.13	0.48
3:D:793:THR:HG22	3:D:879:ARG:HH12	1.77	0.48
3:D:1129:THR:O	3:D:1130:ARG:C	2.52	0.48
3:D:1250:THR:HA	3:D:1269:LYS:HZ3	1.77	0.48
3:D:1341:PRO:HD2	3:D:1342:GLU:OE1	2.14	0.48
1:A:198:ARG:HH12	2:C:932:GLU:CD	2.17	0.48
2:C:87:ASP:CG	2:C:824:ARG:HH22	2.16	0.48
2:C:95:TYR:HB3	2:C:114:PHE:HA	1.95	0.48
2:C:172:ILE:HD13	2:C:184:MET:SD	2.54	0.48
2:C:466:PHE:CD1	2:C:467:ILE:CG1	2.96	0.48
2:C:1109:VAL:O	2:C:1109:VAL:HG13	2.13	0.48
3:D:795:VAL:CG2	3:D:904:VAL:HG21	2.44	0.48
3:D:1045:MET:HG2	3:D:1073:SER:HB3	1.94	0.48
3:D:1105:ILE:CG2	3:D:1200:VAL:CB	2.92	0.48
3:D:1147:ARG:O	3:D:1165:TYR:HA	2.14	0.48
3:D:1253:THR:CA	3:D:1258:ARG:HD2	2.36	0.48
3:D:1434:TRP:HZ3	3:D:1457:ASP:H	1.62	0.48
4:E:8:LYS:CE	4:E:69:LEU:HD21	2.43	0.48
1:A:121:GLU:C	1:A:123:MET:H	2.16	0.48
1:A:128:HIS:C	1:A:128:HIS:CD2	2.86	0.48
1:A:131:THR:CG2	2:C:644:ARG:HH21	2.11	0.48
1:B:203:GLY:O	1:B:204:SER:HB3	2.14	0.48
2:C:14:PRO:HA	2:C:458:TYR:CE1	2.49	0.48
2:C:91:GLN:HA	2:C:119:PRO:HA	1.96	0.48
2:C:427:VAL:O	2:C:430:VAL:HB	2.14	0.48
2:C:745:ILE:C	2:C:747:ALA:H	2.16	0.48
2:C:761:PHE:O	2:C:762:LYS:O	2.31	0.48
2:C:892:LEU:C	2:C:894:GLY:H	2.17	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:953:VAL:HG11	2:C:962:GLN:CB	2.42	0.48
2:C:1020:PRO:O	2:C:1021:LEU:CB	2.62	0.48
2:C:1023:GLY:C	2:C:1024:LYS:HG3	2.34	0.48
2:C:1106:ASP:N	2:C:1108:PRO:HD3	2.29	0.48
3:D:8:VAL:CG1	3:D:1434:TRP:HH2	2.27	0.48
3:D:647:ARG:HD2	3:D:647:ARG:HA	1.63	0.48
3:D:716:PHE:CE2	3:D:765:SER:HB3	2.48	0.48
3:D:1336:LEU:HA	3:D:1340:GLY:O	2.14	0.48
3:D:1393:GLN:HE21	3:D:1420:LEU:CD2	2.27	0.48
1:B:25:LEU:HD12	1:B:26:GLU:N	2.28	0.48
1:B:31:GLY:O	1:B:35:THR:OG1	2.31	0.48
2:C:13:ILE:HG13	2:C:14:PRO:HD2	1.96	0.48
2:C:44:ILE:H	2:C:44:ILE:CD1	2.26	0.48
2:C:254:LEU:O	2:C:257:LEU:HD12	2.14	0.48
2:C:328:LEU:HD23	2:C:468:ARG:HD2	1.95	0.48
2:C:501:THR:O	2:C:501:THR:HG22	2.14	0.48
2:C:735:ARG:C	2:C:737:LEU:N	2.66	0.48
2:C:880:MET:C	2:C:881:ASN:ND2	2.67	0.48
3:D:124:GLU:HA	3:D:456:MET:SD	2.54	0.48
3:D:632:VAL:HG12	3:D:633:VAL:O	2.13	0.48
3:D:836:VAL:HG11	3:D:858:LEU:CD1	2.44	0.48
3:D:905:PRO:HG2	3:D:906:GLN:H	1.78	0.48
3:D:1103:HIS:H	3:D:1222:GLY:CA	2.27	0.48
3:D:1238:MET:HG3	3:D:1238:MET:O	2.13	0.48
1:A:43:ILE:CD1	1:B:32:PHE:CE1	2.97	0.48
1:A:133:GLU:C	1:A:135:GLY:H	2.16	0.48
2:C:74:GLY:O	2:C:76:PRO:N	2.47	0.48
2:C:156:GLY:O	2:C:157:ARG:O	2.32	0.48
2:C:613:VAL:CG1	2:C:619:ARG:HA	2.44	0.48
2:C:668:LEU:HB2	2:C:995:MET:HE2	1.95	0.48
2:C:929:ARG:C	2:C:931:GLY:N	2.66	0.48
3:D:468:LEU:C	3:D:470:LEU:N	2.67	0.48
3:D:500:ARG:O	3:D:504:ASP:HB2	2.14	0.48
3:D:724:GLN:O	3:D:725:SER:O	2.31	0.48
3:D:848:GLU:HA	3:D:851:LEU:HB3	1.96	0.48
3:D:1015:TYR:HB3	3:D:1018:ASN:CB	2.40	0.48
3:D:1071:PHE:HA	3:D:1074:SER:HB3	1.96	0.48
3:D:1076:GLY:HA2	3:D:1079:LYS:HE2	1.96	0.48
3:D:1086:LEU:HD12	3:D:1089:ALA:CB	2.44	0.48
3:D:1101:VAL:HG21	3:D:1424:VAL:CG2	2.24	0.48
1:A:13:ALA:O	1:A:15:THR:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:72:LYS:HB3	1:A:73:GLU:OE2	2.14	0.47
1:A:112:VAL:C	1:A:114:PHE:H	2.17	0.47
1:B:26:GLU:O	1:B:27:PRO:C	2.53	0.47
2:C:173:ASP:CB	2:C:185:LYS:HE3	2.44	0.47
2:C:425:PHE:O	2:C:426:ASP:HB3	2.14	0.47
2:C:495:THR:O	2:C:496:ILE:CB	2.61	0.47
2:C:831:ARG:HH12	2:C:1002:GLU:CB	2.27	0.47
2:C:1103:ASP:O	2:C:1106:ASP:N	2.44	0.47
3:D:690:ALA:O	3:D:694:VAL:N	2.47	0.47
3:D:716:PHE:CE2	3:D:765:SER:CB	2.97	0.47
3:D:815:ALA:O	3:D:817:GLU:N	2.47	0.47
3:D:879:ARG:HG2	3:D:879:ARG:NH1	2.29	0.47
3:D:1140:ILE:HD13	3:D:1175:ILE:HG12	1.95	0.47
3:D:1274:ILE:H	3:D:1274:ILE:HD12	1.77	0.47
3:D:1344:VAL:O	3:D:1348:LEU:N	2.44	0.47
4:E:8:LYS:NZ	4:E:69:LEU:HD21	2.29	0.47
4:E:25:LYS:O	4:E:28:GLN:C	2.52	0.47
1:A:225:PHE:CE1	1:B:36:LEU:HD13	2.50	0.47
1:B:164:ALA:O	1:B:165:ILE:C	2.52	0.47
2:C:6:PHE:HD2	2:C:909:ALA:H	1.61	0.47
2:C:21:ILE:HD11	2:C:455:LEU:HD21	1.97	0.47
2:C:73:ILE:HD12	2:C:94:LEU:HD13	1.96	0.47
2:C:328:LEU:HD21	2:C:468:ARG:NH1	2.29	0.47
2:C:399:ASN:HD21	2:C:401:LEU:N	2.10	0.47
2:C:564:MET:CE	2:C:846:LYS:HG2	2.45	0.47
2:C:589:ARG:NH2	2:C:654:LEU:HD12	2.23	0.47
2:C:679:PHE:N	2:C:683:ASN:OD1	2.43	0.47
2:C:831:ARG:NH1	2:C:1002:GLU:CD	2.67	0.47
2:C:1008:ARG:HH12	2:C:1021:LEU:H	1.61	0.47
2:C:1059:ASP:CG	2:C:1083:GLU:HB2	2.35	0.47
2:C:1082:PRO:HG2	2:C:1085:PHE:HB2	1.96	0.47
3:D:643:GLY:O	3:D:644:LEU:HB2	2.13	0.47
3:D:800:LYS:CB	3:D:821:VAL:H	2.26	0.47
3:D:1384:PRO:HG3	3:D:1389:LEU:O	2.14	0.47
4:E:26:ARG:HH22	4:E:37:ASN:HB3	1.77	0.47
1:B:81:ASN:O	1:B:82:LEU:C	2.51	0.47
1:B:132:LEU:CD2	1:B:132:LEU:H	2.27	0.47
2:C:7:GLY:HA2	2:C:907:ASP:OD1	2.14	0.47
2:C:13:ILE:HG22	2:C:15:LEU:N	2.21	0.47
2:C:14:PRO:HA	2:C:458:TYR:CD1	2.48	0.47
2:C:184:MET:CE	2:C:191:PHE:HZ	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:790:LEU:O	2:C:791:ARG:O	2.32	0.47
2:C:831:ARG:NH1	2:C:1002:GLU:OE2	2.48	0.47
2:C:993:PHE:CD1	2:C:993:PHE:O	2.67	0.47
3:D:21:TRP:C	3:D:23:TYR:H	2.18	0.47
3:D:575:GLN:NE2	3:D:579:ASP:OD2	2.47	0.47
3:D:1065:LEU:C	3:D:1067:VAL:N	2.67	0.47
3:D:1481:VAL:O	3:D:1482:ARG:CG	2.60	0.47
1:A:10:VAL:O	1:A:12:THR:N	2.43	0.47
1:B:44:LEU:HG	1:B:199:ILE:CG1	2.44	0.47
2:C:83:CYS:SG	2:C:88:LEU:HB2	2.55	0.47
2:C:184:MET:HE3	2:C:191:PHE:HZ	1.79	0.47
2:C:261:LEU:O	2:C:264:PRO:HD2	2.14	0.47
2:C:274:ARG:CG	2:C:275:TYR:N	2.78	0.47
2:C:405:ARG:HD2	2:C:543:ASN:ND2	2.29	0.47
2:C:601:GLY:HA3	2:C:648:ARG:N	2.30	0.47
2:C:657:ASP:OD1	2:C:663:GLU:HA	2.14	0.47
3:D:654:LYS:O	3:D:657:LEU:N	2.47	0.47
3:D:707:THR:C	3:D:708:LEU:HG	2.34	0.47
3:D:1053:PHE:CD1	3:D:1072:ILE:HG23	2.49	0.47
3:D:1274:ILE:HA	3:D:1322:GLY:N	2.30	0.47
1:A:18:ASP:O	1:A:19:HIS:HB3	2.15	0.47
1:A:79:ILE:CD1	1:A:165:ILE:HD12	2.38	0.47
1:A:88:ARG:CB	1:A:121:GLU:HB2	2.38	0.47
1:A:108:GLU:CG	2:C:644:ARG:HH22	2.27	0.47
1:B:87:VAL:CG1	1:B:88:ARG:N	2.77	0.47
1:B:118:ALA:C	1:B:120:VAL:N	2.68	0.47
1:B:219:LYS:O	1:B:222:LEU:HB2	2.14	0.47
2:C:23:VAL:HG12	2:C:24:GLU:N	2.30	0.47
2:C:46:ALA:O	2:C:50:GLU:N	2.31	0.47
2:C:159:ILE:CD1	2:C:310:LEU:HB2	2.34	0.47
2:C:195:LEU:HD13	2:C:227:LEU:CD1	2.31	0.47
2:C:333:ILE:CG2	2:C:460:ARG:HH22	2.25	0.47
2:C:408:ARG:NH1	2:C:455:LEU:HD23	2.29	0.47
2:C:425:PHE:O	2:C:426:ASP:CB	2.62	0.47
2:C:449:ILE:HG22	2:C:450:GLY:N	2.29	0.47
2:C:637:PHE:HE1	2:C:1639:GLN:HE21	1.61	0.47
2:C:768:SER:CB	2:C:769:PRO:HD2	2.42	0.47
2:C:778:PHE:N	2:C:778:PHE:CD1	2.82	0.47
2:C:966:LEU:CD1	2:C:986:PRO:HG3	2.40	0.47
2:C:985:GLY:O	2:C:986:PRO:O	2.32	0.47
2:C:1036:GLU:O	2:C:1039:ALA:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1095:LEU:CD1	3:D:603:LEU:HD23	2.35	0.47
3:D:564:GLU:O	3:D:565:ILE:C	2.53	0.47
3:D:836:VAL:CG1	3:D:858:LEU:HD11	2.45	0.47
3:D:1035:ILE:C	3:D:1037:GLN:N	2.68	0.47
3:D:1155:ALA:O	3:D:1156:LEU:C	2.53	0.47
3:D:1277:ILE:HG22	3:D:1279:GLY:N	2.27	0.47
3:D:1336:LEU:HD13	3:D:1340:GLY:C	2.35	0.47
4:E:8:LYS:HB3	4:E:69:LEU:HD11	1.96	0.47
1:A:35:THR:HG21	1:B:43:ILE:CG1	2.45	0.47
1:A:41:ARG:HH12	1:A:42:ARG:HG2	1.80	0.47
1:B:111:ALA:O	1:B:114:PHE:CD1	2.68	0.47
1:B:119:ASP:C	1:B:120:VAL:HG23	2.35	0.47
1:B:181:VAL:O	1:B:181:VAL:HG13	2.14	0.47
2:C:1007:ALA:HB1	3:D:652:LEU:CD2	2.44	0.47
3:D:464:LEU:O	3:D:468:LEU:CB	2.63	0.47
3:D:497:GLU:HG2	3:D:1389:LEU:HD11	1.96	0.47
3:D:705:ALA:CB	3:D:706:PRO:HD3	2.44	0.47
3:D:859:ASP:OD1	3:D:861:GLN:NE2	2.48	0.47
3:D:897:GLN:HE21	3:D:897:GLN:CA	2.27	0.47
3:D:899:LEU:HD22	3:D:899:LEU:H	1.79	0.47
3:D:1071:PHE:O	3:D:1074:SER:N	2.46	0.47
1:A:152:PRO:C	1:A:154:GLU:H	2.18	0.47
1:B:26:GLU:OE1	1:B:27:PRO:HD3	2.15	0.47
1:B:113:ASP:O	1:B:114:PHE:C	2.53	0.47
2:C:15:LEU:HD21	2:C:461:VAL:HB	1.96	0.47
2:C:30:LEU:HD12	2:C:44:ILE:HG12	1.97	0.47
2:C:78:PHE:HB3	2:C:82:GLU:OE2	2.15	0.47
2:C:327:HIS:C	2:C:329:GLY:N	2.68	0.47
2:C:397:GLU:OE2	2:C:632:ASN:ND2	2.47	0.47
2:C:460:ARG:HB2	2:C:468:ARG:HA	1.97	0.47
2:C:547:ILE:HG23	2:C:843:HIS:CE1	2.50	0.47
2:C:747:ALA:O	2:C:748:GLU:C	2.52	0.47
2:C:749:VAL:HG23	2:C:800:VAL:HG23	1.96	0.47
2:C:875:GLY:O	2:C:876:VAL:C	2.53	0.47
2:C:881:ASN:CG	3:D:1034:GLN:CD	2.73	0.47
2:C:1034:GLU:OE2	3:D:1096:ARG:NH2	2.47	0.47
2:C:1067:TYR:O	2:C:1071:ILE:HD13	2.15	0.47
2:C:1073:GLY:CA	3:D:659:LYS:HE3	2.44	0.47
3:D:602:SER:O	3:D:606:ILE:HD12	2.15	0.47
3:D:708:LEU:O	3:D:709:HIS:O	2.33	0.47
3:D:962:ARG:O	3:D:966:GLU:CG	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1055:VAL:O	3:D:1055:VAL:HG12	2.13	0.47
3:D:1095:THR:O	3:D:1099:VAL:HG23	2.13	0.47
3:D:1132:LEU:CD1	3:D:1184:ARG:HH12	2.20	0.47
3:D:1136:LYS:CG	3:D:1139:ASP:OD2	2.62	0.47
3:D:1465:ASN:O	3:D:1470:ARG:HB2	2.15	0.47
2:C:97:ARG:HG2	2:C:112:GLU:H	1.79	0.47
2:C:198:ARG:CZ	2:C:203:ASP:OD2	2.63	0.47
2:C:554:ASP:O	2:C:555:ALA:C	2.53	0.47
2:C:774:LEU:O	2:C:778:PHE:N	2.47	0.47
2:C:944:LEU:HD11	2:C:963:LEU:CD2	2.45	0.47
2:C:987:ILE:HG22	2:C:987:ILE:O	2.14	0.47
2:C:1034:GLU:O	2:C:1037:VAL:HB	2.15	0.47
2:C:1056:LYS:O	3:D:624:ASP:HB2	2.14	0.47
3:D:537:THR:O	3:D:537:THR:HG22	2.15	0.47
3:D:687:VAL:O	3:D:690:ALA:HB3	2.15	0.47
3:D:764:LEU:CD2	3:D:766:ALA:HB3	2.45	0.47
3:D:947:ILE:CA	3:D:1020:LEU:HD13	2.43	0.47
3:D:1005:GLN:O	3:D:1009:ASN:HB3	2.15	0.47
3:D:1311:LEU:HD12	3:D:1311:LEU:N	2.30	0.47
1:A:111:ALA:O	1:A:112:VAL:C	2.53	0.47
1:A:199:ILE:HD12	1:A:199:ILE:N	2.30	0.47
1:A:223:ASN:O	1:A:225:PHE:N	2.48	0.47
1:B:32:PHE:HA	1:B:35:THR:OG1	2.15	0.47
2:C:26:TYR:HE2	2:C:30:LEU:HD22	1.80	0.47
2:C:208:VAL:O	2:C:209:ARG:HB2	2.14	0.47
2:C:216:ASP:C	2:C:218:VAL:N	2.67	0.47
2:C:252:LYS:HE3	2:C:298:PHE:HE1	1.80	0.47
2:C:730:SER:O	2:C:731:GLU:O	2.33	0.47
2:C:794:PRO:HG2	2:C:1027:PHE:HB2	1.97	0.47
2:C:876:VAL:HB	2:C:877:PRO:HD3	1.94	0.47
2:C:890:LEU:HD11	2:C:917:LEU:HD13	1.97	0.47
2:C:1055:ILE:HD12	2:C:1055:ILE:N	2.11	0.47
2:C:1091:GLU:OE1	3:D:606:ILE:HG22	2.15	0.47
3:D:120:ALA:HB1	3:D:126:VAL:CB	2.45	0.47
3:D:793:THR:HA	3:D:879:ARG:HH12	1.80	0.47
3:D:1134:LEU:N	3:D:1134:LEU:HD23	2.29	0.47
3:D:1231:GLU:C	3:D:1233:GLY:N	2.67	0.47
3:D:1327:ARG:NH1	3:D:1327:ARG:CB	2.76	0.47
1:A:34:VAL:C	1:A:36:LEU:N	2.67	0.47
1:A:222:LEU:CD1	1:B:215:VAL:HG13	2.40	0.47
1:B:11:PHE:HA	1:B:25:LEU:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:30:ARG:CZ	2:C:854:PRO:HB3	2.45	0.47
2:C:20:GLU:OE2	2:C:461:VAL:HG23	2.15	0.47
2:C:78:PHE:HB3	2:C:82:GLU:CD	2.36	0.47
2:C:78:PHE:HD2	2:C:82:GLU:OE2	1.98	0.47
2:C:101:ILE:HG22	2:C:102:HIS:N	2.29	0.47
2:C:175:GLU:O	2:C:182:VAL:HA	2.15	0.47
2:C:304:LEU:HD23	2:C:305:PRO:N	2.30	0.47
2:C:314:THR:O	2:C:315:ALA:HB3	2.15	0.47
2:C:706:GLU:O	2:C:826:PHE:HA	2.15	0.47
2:C:862:PRO:HG2	2:C:863:ASP:H	1.80	0.47
3:D:99:ALA:O	3:D:575:GLN:HB2	2.14	0.47
3:D:507:ASN:O	3:D:508:ARG:HG2	2.15	0.47
3:D:553:ARG:C	3:D:554:LEU:HD23	2.36	0.47
3:D:706:PRO:HG2	3:D:706:PRO:O	2.15	0.47
3:D:937:TYR:O	3:D:941:LEU:HB2	2.14	0.47
3:D:1081:GLY:HA2	3:D:1084:THR:HG23	1.97	0.47
3:D:1205:TYR:O	3:D:1206:GLY:O	2.32	0.47
3:D:1236:LEU:HB3	3:D:1256:LEU:N	2.30	0.47
4:E:13:VAL:HG21	4:E:19:LEU:CB	2.45	0.47
1:A:134:GLU:HB3	2:C:606:VAL:HG23	1.96	0.46
1:A:195:LEU:C	1:A:196:THR:HG22	2.34	0.46
1:A:199:ILE:HG21	1:A:207:PRO:HA	1.97	0.46
1:B:24:VAL:HG12	1:B:24:VAL:O	2.13	0.46
2:C:115:LEU:HA	2:C:375:SER:CB	2.45	0.46
2:C:127:PHE:N	2:C:127:PHE:CD1	2.83	0.46
2:C:149:THR:CB	2:C:158:TYR:HE1	2.22	0.46
2:C:358:ARG:O	2:C:359:MET:C	2.53	0.46
2:C:595:LEU:HG	2:C:655:LEU:HD23	1.97	0.46
2:C:674:VAL:HG23	2:C:869:VAL:O	2.15	0.46
2:C:796:GLU:HG2	3:D:681:ARG:NH2	2.28	0.46
2:C:846:LYS:HD2	2:C:846:LYS:O	2.16	0.46
2:C:890:LEU:HD11	2:C:901:TYR:CE2	2.50	0.46
2:C:1052:MET:HE1	3:D:748:HIS:CB	2.43	0.46
3:D:149:LYS:C	3:D:151:GLN:N	2.68	0.46
3:D:789:LEU:CD1	3:D:934:LEU:HD22	2.44	0.46
3:D:1075:HIS:H	3:D:1075:HIS:CD2	2.33	0.46
3:D:1094:LEU:O	3:D:1095:THR:C	2.53	0.46
3:D:1101:VAL:CG2	3:D:1424:VAL:HG22	2.24	0.46
3:D:1251:ASP:O	3:D:1252:ILE:HB	2.15	0.46
3:D:1340:GLY:HA3	3:D:1342:GLU:OE1	2.15	0.46
1:A:70:GLY:HA2	2:C:606:VAL:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:198:ARG:HH12	2:C:932:GLU:CB	2.27	0.46
2:C:65:VAL:HB	2:C:101:ILE:HB	1.97	0.46
2:C:166:PRO:HB3	2:C:417:GLY:N	2.27	0.46
2:C:215:GLY:O	2:C:216:ASP:O	2.34	0.46
2:C:434:HIS:C	2:C:436:GLY:N	2.69	0.46
2:C:613:VAL:HG13	2:C:620:LEU:N	2.15	0.46
2:C:691:SER:HB2	2:C:858:MET:CE	2.45	0.46
2:C:728:HIS:CD2	2:C:783:ARG:NH1	2.83	0.46
2:C:928:LYS:O	2:C:931:GLY:N	2.48	0.46
3:D:1083:ASP:C	3:D:1085:ALA:N	2.69	0.46
4:E:55:TYR:O	4:E:56:ASP:C	2.54	0.46
4:E:86:GLN:HA	4:E:89:MET:HG2	1.97	0.46
1:B:188:GLN:NE2	1:B:188:GLN:C	2.69	0.46
2:C:72:ARG:HH11	2:C:112:GLU:CD	2.17	0.46
2:C:308:ARG:C	2:C:310:LEU:N	2.68	0.46
2:C:308:ARG:C	2:C:310:LEU:H	2.19	0.46
2:C:545:ASN:HA	2:C:905:VAL:HG21	1.98	0.46
2:C:609:THR:O	2:C:609:THR:HG23	2.14	0.46
2:C:1099:VAL:HG22	3:D:10:ILE:CD1	2.42	0.46
3:D:149:LYS:O	3:D:152:LEU:N	2.48	0.46
3:D:560:GLN:O	3:D:561:GLY:C	2.54	0.46
3:D:631:ILE:HD11	3:D:743:ASP:CB	2.45	0.46
3:D:638:LYS:CB	3:D:729:HIS:NE2	2.78	0.46
3:D:752:SER:O	3:D:753:SER:C	2.54	0.46
3:D:794:GLN:HB3	3:D:1017:PHE:CZ	2.49	0.46
3:D:1339:LYS:HD2	3:D:1339:LYS:HA	1.58	0.46
2:C:100:LEU:HD23	2:C:372:LEU:CD1	2.45	0.46
2:C:437:ARG:HG3	2:C:437:ARG:O	2.14	0.46
2:C:461:VAL:O	2:C:481:GLU:HG2	2.16	0.46
2:C:672:VAL:HG22	2:C:868:ASP:CG	2.36	0.46
2:C:727:PRO:O	2:C:729:LEU:N	2.48	0.46
2:C:1108:PRO:O	2:C:1109:VAL:O	2.33	0.46
3:D:552:ASN:O	3:D:556:LYS:N	2.49	0.46
3:D:660:LYS:O	3:D:664:LYS:N	2.42	0.46
3:D:695:ILE:HG23	3:D:718:PRO:HD2	1.96	0.46
3:D:701:LEU:CD1	3:D:715:ALA:HB2	2.44	0.46
3:D:709:HIS:HA	3:D:1227:GLU:CD	2.36	0.46
3:D:773:ALA:O	3:D:774:SER:CB	2.64	0.46
3:D:855:HIS:CD2	3:D:855:HIS:N	2.66	0.46
3:D:1273:VAL:O	3:D:1322:GLY:HA3	2.15	0.46
3:D:1290:LEU:O	3:D:1291:SER:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:15:SER:O	4:E:17:TYR:N	2.49	0.46
4:E:78:ASN:O	4:E:79:LEU:HB2	2.15	0.46
1:A:30:ARG:HH11	1:A:192:LEU:HD23	1.80	0.46
1:B:211:LEU:C	1:B:215:VAL:HG23	2.33	0.46
2:C:186:VAL:HG11	2:C:258:PHE:HD2	1.79	0.46
2:C:258:PHE:CD1	2:C:258:PHE:N	2.83	0.46
2:C:460:ARG:CA	2:C:468:ARG:O	2.63	0.46
2:C:494:TYR:O	2:C:495:THR:CB	2.62	0.46
2:C:549:PHE:HA	2:C:551:GLU:OE1	2.15	0.46
2:C:641:PRO:HA	2:C:656:ALA:HA	1.96	0.46
2:C:684:PHE:O	2:C:686:ASP:N	2.49	0.46
3:D:99:ALA:HB3	3:D:458:ALA:CB	2.45	0.46
3:D:654:LYS:O	3:D:655:PRO:C	2.51	0.46
3:D:772:PRO:CB	3:D:778:LEU:HD23	2.46	0.46
3:D:1089:ALA:C	3:D:1091:SER:H	2.19	0.46
3:D:1114:THR:CB	3:D:1189:ARG:HH11	2.27	0.46
3:D:1156:LEU:HB3	3:D:1173:PHE:CE1	2.50	0.46
1:A:105:GLY:HA2	1:A:136:GLY:N	2.30	0.46
1:B:101:LEU:HD23	1:B:140:MET:CE	2.45	0.46
1:B:144:VAL:HG12	1:B:145:ASP:N	2.30	0.46
2:C:122:THR:HG22	2:C:123:GLU:N	2.30	0.46
2:C:351:LEU:HA	2:C:377:PRO:HG3	1.98	0.46
2:C:358:ARG:HB2	2:C:372:LEU:CD2	2.45	0.46
2:C:395:LYS:CG	2:C:397:GLU:HG3	2.44	0.46
2:C:1639:GLN:HG2	2:C:658:GLY:HA2	1.97	0.46
2:C:756:VAL:O	2:C:790:LEU:N	2.48	0.46
2:C:805:ARG:NE	2:C:821:GLU:OE2	2.38	0.46
2:C:946:ARG:CD	2:C:984:GLU:HB2	2.45	0.46
3:D:31(U):UNK:O	3:D:32(U):UNK:CB	2.62	0.46
3:D:467:GLU:O	3:D:468:LEU:O	2.34	0.46
3:D:700:VAL:N	3:D:716:PHE:O	2.48	0.46
3:D:1109:GLU:O	3:D:1202:GLN:CB	2.64	0.46
3:D:1435:LEU:CD2	3:D:1457:ASP:OD2	2.64	0.46
3:D:1472:ILE:O	3:D:1477:GLY:HA3	2.15	0.46
4:E:48:MET:HE2	4:E:57:ASP:HB3	1.98	0.46
1:A:30:ARG:NH1	1:A:192:LEU:CD2	2.79	0.46
1:A:194:LYS:O	1:A:194:LYS:HG2	2.16	0.46
1:A:198:ARG:NH2	2:C:932:GLU:OE1	2.32	0.46
1:B:22:GLU:O	1:B:23:PHE:HD2	1.98	0.46
2:C:66:LEU:N	2:C:100:LEU:HA	2.30	0.46
2:C:143:SER:O	2:C:147:TYR:OH	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:340:MET:O	2:C:340:MET:SD	2.73	0.46
2:C:525:ALA:O	2:C:527:GLU:N	2.48	0.46
2:C:682:TYR:CE1	2:C:851:LYS:HD2	2.51	0.46
2:C:813:VAL:HG12	2:C:815:LEU:CG	2.46	0.46
2:C:816:LYS:O	2:C:819:VAL:HB	2.15	0.46
2:C:912:PRO:O	2:C:915:LYS:HB2	2.16	0.46
2:C:969:LEU:HD11	3:D:952:ASP:N	2.22	0.46
2:C:1014:SER:O	2:C:1018:GLN:OE1	2.34	0.46
2:C:1038:TRP:CH2	3:D:1096:ARG:HA	2.50	0.46
2:C:1055:ILE:HG22	2:C:1055:ILE:O	2.16	0.46
2:C:1059:ASP:HA	2:C:1083:GLU:CG	2.46	0.46
3:D:28:LYS:O	3:D:30:GLU:N	2.49	0.46
3:D:98:PRO:CB	3:D:574:LEU:HD23	2.46	0.46
3:D:23(U):UNK:CB	3:D:43(U):UNK:N	2.79	0.46
3:D:548:ILE:O	3:D:552:ASN:ND2	2.49	0.46
3:D:760:ARG:NH2	4:E:3:GLU:OE2	2.38	0.46
3:D:794:GLN:OE1	3:D:906:GLN:NE2	2.49	0.46
3:D:937:TYR:N	3:D:937:TYR:HD1	2.14	0.46
3:D:1166:LEU:HB2	3:D:1170:ASP:HB2	1.96	0.46
3:D:1377:LYS:HE2	3:D:1378:TYR:CZ	2.51	0.46
1:A:74:ASP:OD1	1:A:76:VAL:HG23	2.16	0.46
1:A:184:THR:O	1:A:184:THR:HG23	2.15	0.46
1:B:30:ARG:NH2	2:C:854:PRO:HB3	2.31	0.46
2:C:12:VAL:CG1	2:C:13:ILE:H	1.96	0.46
2:C:252:LYS:HE3	2:C:298:PHE:CE1	2.51	0.46
2:C:462:ASP:O	2:C:464:LEU:N	2.48	0.46
2:C:672:VAL:HG13	2:C:673:LEU:N	2.31	0.46
2:C:787:ASP:O	2:C:789:SER:N	2.49	0.46
3:D:75:ARG:O	3:D:77:ALA:N	2.49	0.46
3:D:6(U):UNK:CB	3:D:36(U):UNK:HA	2.46	0.46
3:D:538:SER:O	3:D:539:ASP:C	2.55	0.46
3:D:968:ASP:HA	3:D:971:LEU:HD12	1.96	0.46
3:D:1057:VAL:HG12	3:D:1067:VAL:HG21	1.98	0.46
3:D:1084:THR:C	3:D:1086:LEU:N	2.69	0.46
3:D:1277:ILE:O	3:D:1317:ASP:O	2.33	0.46
3:D:1441:GLN:O	3:D:1442:ASN:HB3	2.16	0.46
3:D:1449:GLU:O	3:D:1452:ILE:N	2.49	0.46
3:D:1489:GLN:CB	4:E:72:ARG:HD2	2.46	0.46
4:E:26:ARG:NH2	4:E:30:LEU:HD12	2.30	0.46
4:E:26:ARG:HH22	4:E:37:ASN:CB	2.29	0.46
1:A:125:PRO:O	1:A:126:ASP:C	2.52	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:164:ALA:O	1:A:165:ILE:HG12	2.15	0.46
1:B:26:GLU:CG	1:B:27:PRO:HD3	2.45	0.46
1:B:64:GLU:O	1:B:75:VAL:HG21	2.16	0.46
1:B:99:LEU:HD13	1:B:114:PHE:CD2	2.51	0.46
2:C:197:LEU:HD22	2:C:202:TYR:CD1	2.43	0.46
3:D:520:LEU:HB3	3:D:521:PRO:HD2	1.97	0.46
3:D:642:CYS:SG	3:D:702:LEU:CD2	3.04	0.46
3:D:836:VAL:HB	3:D:858:LEU:HD21	1.98	0.46
3:D:1454:GLY:O	3:D:1455:LYS:HB2	2.15	0.46
3:D:1485:GLN:HA	4:E:75:PHE:HA	1.98	0.46
4:E:26:ARG:HH21	4:E:30:LEU:CD1	2.29	0.46
1:B:101:LEU:HD11	1:B:113:ASP:HB2	1.98	0.46
2:C:94:LEU:HD21	2:C:344:PHE:HZ	1.81	0.46
2:C:162:ILE:HD12	2:C:162:ILE:N	2.31	0.46
2:C:203:ASP:O	2:C:204:GLN:C	2.55	0.46
2:C:474:VAL:O	2:C:474:VAL:HG12	2.16	0.46
2:C:570:PRO:CG	2:C:635:THR:HG23	2.46	0.46
2:C:599:GLU:O	2:C:600:ASP:O	2.33	0.46
2:C:640:ARG:O	2:C:657:ASP:N	2.49	0.46
2:C:679:PHE:HE2	2:C:978:ARG:NH2	2.14	0.46
2:C:684:PHE:O	2:C:685:GLU:HB2	2.16	0.46
2:C:737:LEU:O	2:C:738:ASP:C	2.53	0.46
3:D:75:ARG:C	3:D:77:ALA:H	2.19	0.46
3:D:690:ALA:O	3:D:693:GLU:N	2.43	0.46
3:D:709:HIS:CE1	3:D:1231:GLU:HG3	2.51	0.46
3:D:859:ASP:C	3:D:861:GLN:H	2.19	0.46
3:D:901:GLN:O	3:D:905:PRO:HD3	2.16	0.46
3:D:957:PRO:CG	3:D:1007:VAL:HB	2.45	0.46
3:D:989:TYR:C	3:D:991:GLN:H	2.18	0.46
3:D:1278:ASP:CA	3:D:1317:ASP:O	2.64	0.46
3:D:1347:TYR:CE1	3:D:1351:GLU:HB2	2.51	0.46
3:D:1485:GLN:CB	4:E:75:PHE:HB3	2.46	0.46
1:A:126:ASP:O	1:A:127:LEU:C	2.54	0.45
1:A:175:ARG:HB2	1:A:201:THR:CB	2.46	0.45
1:B:43:ILE:HD12	1:B:218:LEU:HB2	1.97	0.45
1:B:57:TYR:CD2	1:B:57:TYR:C	2.88	0.45
1:B:213:GLN:O	1:B:216:ALA:HB3	2.16	0.45
2:C:157:ARG:NH1	2:C:321:GLU:HG2	2.31	0.45
2:C:172:ILE:CG2	2:C:173:ASP:N	2.79	0.45
2:C:306:THR:O	2:C:310:LEU:N	2.49	0.45
2:C:589:ARG:NH1	2:C:596:TYR:CB	2.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:692:GLU:O	2:C:693:GLU:C	2.53	0.45
2:C:1099:VAL:O	2:C:1099:VAL:HG12	2.16	0.45
3:D:508:ARG:HB2	3:D:510:GLU:OE2	2.15	0.45
3:D:700:VAL:CG2	3:D:718:PRO:HG3	2.46	0.45
3:D:791:TYR:CE1	3:D:1023:MET:HG3	2.51	0.45
3:D:836:VAL:HG11	3:D:858:LEU:HD11	1.98	0.45
3:D:937:TYR:N	3:D:937:TYR:CD1	2.84	0.45
3:D:1007:VAL:HG13	3:D:1008:PHE:H	1.81	0.45
3:D:1165:TYR:CE2	3:D:1214:PRO:HB3	2.51	0.45
3:D:1346:ARG:NH1	3:D:1369:GLU:OE2	2.50	0.45
3:D:1475:GLY:HA2	4:E:17:TYR:CE2	2.51	0.45
1:A:24:VAL:HG22	1:A:196:THR:HB	1.98	0.45
2:C:6:PHE:CD2	2:C:909:ALA:HA	2.52	0.45
2:C:8:ARG:C	2:C:494:TYR:OH	2.55	0.45
2:C:289:THR:HG23	2:C:302:VAL:O	2.16	0.45
2:C:321:GLU:O	2:C:322:VAL:C	2.54	0.45
2:C:540:PHE:CE1	2:C:906:PHE:HE1	2.34	0.45
2:C:574:ALA:O	2:C:575:GLN:O	2.34	0.45
2:C:880:MET:O	2:C:881:ASN:O	2.33	0.45
2:C:937:ASP:O	2:C:939:ARG:N	2.48	0.45
2:C:1004:LYS:O	2:C:1005:MET:HB3	2.15	0.45
2:C:1108:PRO:O	2:C:1109:VAL:C	2.55	0.45
3:D:638:LYS:CB	3:D:729:HIS:CE1	2.99	0.45
3:D:678:GLU:C	3:D:680:GLN:N	2.69	0.45
3:D:762:GLN:HE21	4:E:20:THR:CB	2.28	0.45
3:D:1148:VAL:HG22	3:D:1163:GLY:O	2.17	0.45
3:D:1333:HIS:HE1	3:D:1421:LEU:HB3	1.80	0.45
2:C:137:VAL:HG11	2:C:411:SER:HB2	1.97	0.45
2:C:218:VAL:O	2:C:219:GLN:C	2.54	0.45
2:C:257:LEU:HA	2:C:261:LEU:CD2	2.45	0.45
2:C:351:LEU:HG	2:C:352:ALA:N	2.31	0.45
2:C:380:ALA:O	2:C:384:GLU:CB	2.64	0.45
2:C:654:LEU:HG	2:C:655:LEU:N	2.32	0.45
2:C:733:ALA:O	2:C:734:LEU:C	2.55	0.45
2:C:959:PRO:O	2:C:962:GLN:N	2.50	0.45
3:D:78:VAL:N	3:D:81:THR:O	2.43	0.45
3:D:632:VAL:HG12	3:D:633:VAL:N	2.30	0.45
3:D:729:HIS:ND1	3:D:730:PRO:HD2	2.30	0.45
3:D:772:PRO:HG3	3:D:778:LEU:HD23	1.99	0.45
3:D:1170:ASP:C	3:D:1172:HIS:N	2.70	0.45
3:D:1462:LEU:CD2	3:D:1473:PRO:HG2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:17:GLY:O	1:A:18:ASP:HB2	2.16	0.45
1:A:50:GLY:HA3	1:A:171:PHE:O	2.15	0.45
1:A:121:GLU:C	1:A:123:MET:N	2.70	0.45
2:C:92:ALA:HB2	2:C:120:LEU:HD11	1.98	0.45
2:C:152:PRO:O	2:C:153:ALA:O	2.35	0.45
2:C:215:GLY:O	2:C:216:ASP:C	2.54	0.45
2:C:224:GLU:C	2:C:226:VAL:N	2.70	0.45
2:C:520:GLU:N	2:C:521:PRO:CD	2.80	0.45
2:C:574:ALA:HB1	2:C:667:ALA:O	2.17	0.45
2:C:681:GLY:CA	3:D:939:PHE:CE2	2.99	0.45
2:C:762:LYS:HD2	2:C:786:LYS:CD	2.38	0.45
2:C:881:ASN:HB2	3:D:1061:PHE:CE2	2.52	0.45
2:C:926:PHE:HE1	2:C:929:ARG:NH1	2.14	0.45
3:D:153:LEU:C	3:D:155:ASP:H	2.19	0.45
3:D:653:PHE:O	3:D:654:LYS:C	2.55	0.45
3:D:678:GLU:O	3:D:680:GLN:N	2.45	0.45
3:D:770:LEU:CD1	3:D:770:LEU:N	2.77	0.45
3:D:845:ASN:O	3:D:847:ASP:N	2.42	0.45
3:D:963:TYR:HE2	3:D:1002:LYS:HB3	1.81	0.45
3:D:1044:LEU:HD12	3:D:1044:LEU:HA	1.73	0.45
3:D:1065:LEU:HD12	3:D:1067:VAL:HG23	1.98	0.45
3:D:1075:HIS:CD2	3:D:1075:HIS:N	2.85	0.45
3:D:1237:THR:HG22	3:D:1239:ARG:H	1.81	0.45
4:E:63:TRP:O	4:E:67:GLU:N	2.41	0.45
1:A:74:ASP:HB2	2:C:627:ARG:NH2	2.31	0.45
1:B:15:THR:C	1:B:17:GLY:H	2.18	0.45
1:B:173:PRO:HA	1:B:203:GLY:HA3	1.99	0.45
2:C:64:LEU:HA	2:C:101:ILE:O	2.16	0.45
2:C:553:ASP:HA	2:C:882:LEU:HA	1.98	0.45
2:C:588:VAL:CG2	2:C:666:LEU:HD13	2.46	0.45
2:C:848:VAL:HG12	3:D:740:PHE:O	2.16	0.45
3:D:92:HIS:O	3:D:94:GLU:N	2.50	0.45
3:D:601:ARG:HD2	3:D:605:ASP:OD2	2.16	0.45
3:D:631:ILE:HD11	3:D:743:ASP:HB2	1.97	0.45
3:D:764:LEU:HG	3:D:766:ALA:N	2.29	0.45
3:D:1051:GLU:O	3:D:1052:THR:O	2.35	0.45
3:D:1069:GLU:C	3:D:1071:PHE:N	2.70	0.45
3:D:1086:LEU:HD13	3:D:1238:MET:CB	2.38	0.45
3:D:1118:ILE:HD11	3:D:1193:THR:CG2	2.46	0.45
3:D:1130:ARG:HG2	3:D:1130:ARG:NH1	2.32	0.45
3:D:1140:ILE:O	3:D:1144:LEU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1271:LYS:O	3:D:1273:VAL:N	2.49	0.45
3:D:1283:ILE:CD1	3:D:1312:LEU:HA	2.47	0.45
1:A:30:ARG:NH1	1:A:192:LEU:HD23	2.32	0.45
1:A:42:ARG:NH2	1:B:34:VAL:HB	2.26	0.45
1:A:126:ASP:OD1	1:A:126:ASP:N	2.49	0.45
1:B:12:THR:O	1:B:24:VAL:N	2.50	0.45
2:C:32:ALA:HB2	2:C:73:ILE:HD13	1.99	0.45
2:C:78:PHE:N	2:C:78:PHE:CD1	2.83	0.45
2:C:304:LEU:H	2:C:305:PRO:HD3	1.82	0.45
2:C:374:ASN:O	2:C:376:ARG:HG2	2.17	0.45
2:C:406:HIS:ND1	2:C:406:HIS:O	2.50	0.45
2:C:630:ARG:HA	2:C:705:ILE:CD1	2.45	0.45
2:C:935:GLY:O	2:C:936:VAL:O	2.33	0.45
3:D:91:ALA:CB	3:D:518:PRO:CG	2.95	0.45
3:D:666:PHE:CZ	3:D:676:MET:SD	3.10	0.45
3:D:1085:ALA:C	3:D:1087:ARG:H	2.19	0.45
3:D:1106:VAL:HG12	3:D:1107:VAL:N	2.32	0.45
3:D:1268:PRO:HB2	3:D:1269:LYS:H	1.67	0.45
4:E:77:GLU:HG3	4:E:77:GLU:O	2.17	0.45
1:A:179:PHE:O	1:A:179:PHE:CD1	2.69	0.45
1:A:189:ARG:O	1:A:191:ASP:N	2.50	0.45
1:A:198:ARG:NH1	2:C:932:GLU:HB3	2.31	0.45
1:B:36:LEU:O	1:B:40:LEU:HD23	2.17	0.45
2:C:33:ASP:O	2:C:33:ASP:CG	2.55	0.45
2:C:115:LEU:HD13	2:C:375:SER:CB	2.47	0.45
2:C:378:LEU:HD12	2:C:378:LEU:N	2.31	0.45
2:C:758:ARG:O	2:C:788:THR:O	2.35	0.45
2:C:877:PRO:HG2	3:D:949:ILE:HD12	1.98	0.45
2:C:905:VAL:O	2:C:906:PHE:HB2	2.17	0.45
2:C:940:GLU:HA	2:C:973:VAL:CG2	2.45	0.45
3:D:21:TRP:C	3:D:23:TYR:N	2.70	0.45
3:D:106:LYS:O	3:D:109:PRO:N	2.50	0.45
3:D:609:GLY:O	3:D:611:GLN:N	2.50	0.45
3:D:860:LEU:HD12	3:D:878:GLY:CA	2.47	0.45
3:D:876:SER:O	3:D:878:GLY:N	2.50	0.45
3:D:1076:GLY:HA2	3:D:1079:LYS:HG2	1.97	0.45
3:D:1192:LEU:HG	3:D:1369:GLU:HB3	1.99	0.45
3:D:1352:ILE:O	3:D:1353:GLN:C	2.55	0.45
1:A:157:GLY:O	1:A:164:ALA:HB1	2.17	0.45
1:A:157:GLY:H	1:A:166:PRO:HB3	1.80	0.45
1:A:173:PRO:O	1:A:202:ASP:CA	2.62	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:44:LEU:CG	1:B:199:ILE:HD11	2.43	0.45
2:C:282:GLY:O	2:C:283:VAL:HG23	2.17	0.45
2:C:299:LYS:O	2:C:299:LYS:CG	2.64	0.45
2:C:410:ILE:HG21	2:C:468:ARG:HH22	1.81	0.45
2:C:545:ASN:C	2:C:547:ILE:H	2.20	0.45
2:C:576:ALA:HB1	2:C:577:PRO:HD2	1.99	0.45
2:C:1035:MET:HB3	3:D:707:THR:HB	1.98	0.45
3:D:695:ILE:HD13	3:D:718:PRO:HB2	1.98	0.45
3:D:705:ALA:HB3	3:D:706:PRO:HD3	1.98	0.45
3:D:957:PRO:HG3	3:D:1007:VAL:CA	2.47	0.45
3:D:1060:SER:C	3:D:1062:ARG:N	2.69	0.45
3:D:1319:VAL:O	3:D:1320:GLU:C	2.54	0.45
1:A:23:PHE:CZ	1:A:207:PRO:HB2	2.49	0.45
1:A:88:ARG:HD3	1:A:121:GLU:CD	2.37	0.45
1:A:195:LEU:HD22	1:A:197:LEU:HD22	1.99	0.45
2:C:202:TYR:CE1	2:C:304:LEU:HD13	2.52	0.45
2:C:202:TYR:C	2:C:203:ASP:CG	2.75	0.45
2:C:246:ASP:O	2:C:248:PRO:HD3	2.17	0.45
2:C:545:ASN:O	2:C:547:ILE:N	2.49	0.45
2:C:884:GLN:HG3	2:C:885:ILE:HD12	1.98	0.45
3:D:511:TRP:CD1	3:D:511:TRP:N	2.84	0.45
3:D:679:ARG:C	3:D:680:GLN:HG2	2.38	0.45
3:D:710:ARG:NH1	3:D:768:ASN:HD21	2.15	0.45
3:D:924:MET:N	4:E:7:ASP:OD2	2.50	0.45
3:D:1266:ARG:C	3:D:1268:PRO:HD3	2.37	0.45
1:A:225:PHE:CD2	1:B:11:PHE:CE1	3.05	0.45
1:B:188:GLN:HG2	3:D:688:TRP:HD1	1.77	0.45
2:C:143:SER:OG	2:C:330:ASN:HA	2.17	0.45
2:C:150:PRO:HD3	2:C:321:GLU:HB3	1.98	0.45
2:C:163:ILE:CG2	2:C:169:GLY:HA3	2.45	0.45
2:C:405:ARG:NH1	2:C:566:THR:OG1	2.48	0.45
2:C:491:GLU:HA	2:C:531:PHE:CA	2.21	0.45
2:C:491:GLU:O	2:C:510:THR:N	2.43	0.45
2:C:531:PHE:O	2:C:532:MET:CB	2.60	0.45
2:C:537:LYS:O	2:C:540:PHE:N	2.48	0.45
2:C:674:VAL:HG21	2:C:871:LEU:HB2	1.99	0.45
2:C:778:PHE:O	2:C:780:GLU:N	2.50	0.45
2:C:840:ALA:CB	2:C:846:LYS:HA	2.47	0.45
2:C:944:LEU:O	2:C:946:ARG:N	2.50	0.45
3:D:778:LEU:HD12	3:D:778:LEU:O	2.17	0.45
3:D:907:GLU:HG3	3:D:911:LEU:HD13	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:924:MET:O	3:D:925:GLU:C	2.54	0.45
3:D:924:MET:O	3:D:927:THR:N	2.49	0.45
3:D:983:LEU:HD23	3:D:983:LEU:HA	1.73	0.45
3:D:1083:ASP:O	3:D:1086:LEU:CB	2.62	0.45
3:D:1283:ILE:HD13	3:D:1312:LEU:CD2	2.47	0.45
3:D:1311:LEU:H	3:D:1311:LEU:CD1	2.29	0.45
3:D:1435:LEU:HD21	3:D:1468:LEU:CD2	2.47	0.45
3:D:1463:LYS:HA	3:D:1466:VAL:HB	1.99	0.45
1:A:178:ALA:HB2	2:C:863:ASP:O	2.17	0.44
1:B:19:HIS:HA	1:B:207:PRO:HG3	1.98	0.44
1:B:80:LEU:HD22	3:D:839:LEU:CB	2.48	0.44
1:B:94:MET:CB	1:B:94:MET:HE3	2.47	0.44
2:C:584:GLU:C	2:C:586:ARG:H	2.19	0.44
2:C:691:SER:HB2	2:C:858:MET:HE2	1.98	0.44
2:C:874:LEU:HD12	2:C:874:LEU:HA	1.66	0.44
2:C:1008:ARG:HH22	2:C:1020:PRO:HA	1.82	0.44
3:D:149:LYS:C	3:D:151:GLN:H	2.19	0.44
3:D:638:LYS:O	3:D:639:LEU:O	2.34	0.44
3:D:663:GLU:C	3:D:665:ALA:N	2.69	0.44
3:D:905:PRO:CG	3:D:906:GLN:N	2.80	0.44
3:D:1343:ALA:O	3:D:1344:VAL:C	2.55	0.44
3:D:1478:SER:O	3:D:1481:VAL:N	2.45	0.44
4:E:9:LEU:C	4:E:11:GLY:H	2.20	0.44
1:B:99:LEU:O	1:B:141:GLU:HA	2.17	0.44
1:B:111:ALA:HA	1:B:114:PHE:CE1	2.52	0.44
2:C:30:LEU:HD13	2:C:118:LEU:HD11	1.98	0.44
2:C:378:LEU:O	2:C:382:LEU:HB2	2.17	0.44
2:C:520:GLU:O	2:C:522:VAL:N	2.49	0.44
2:C:588:VAL:HG21	2:C:666:LEU:HA	1.99	0.44
2:C:641:PRO:HA	2:C:656:ALA:CB	2.47	0.44
2:C:677:MET:H	2:C:873:PRO:HD3	1.82	0.44
2:C:897:LEU:O	2:C:899:GLN:HG3	2.17	0.44
2:C:1104:GLU:HA	3:D:6:ARG:HG3	1.99	0.44
3:D:890:VAL:HG13	3:D:926:LYS:CE	2.45	0.44
3:D:1007:VAL:HG11	3:D:1040:GLY:HA3	2.00	0.44
3:D:1094:LEU:HA	3:D:1094:LEU:HD12	1.63	0.44
3:D:1344:VAL:HG11	3:D:1421:LEU:HD11	1.99	0.44
4:E:13:VAL:HB	4:E:18:ARG:HB3	1.99	0.44
1:A:111:ALA:N	1:A:129:ILE:HG12	2.31	0.44
1:B:133:GLU:C	1:B:135:GLY:H	2.21	0.44
2:C:23:VAL:C	2:C:25:SER:H	2.19	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:182:VAL:HG12	2:C:193:LEU:CB	2.48	0.44
2:C:440:PRO:HD3	2:C:455:LEU:HA	1.96	0.44
2:C:493:ARG:NH2	3:D:1069:GLU:OE2	2.50	0.44
3:D:84:ILE:O	3:D:85:VAL:CB	2.65	0.44
3:D:691:LEU:C	3:D:693:GLU:H	2.19	0.44
3:D:792:ILE:N	3:D:792:ILE:CD1	2.79	0.44
3:D:809:PRO:C	3:D:811:GLU:H	2.19	0.44
3:D:948:THR:O	3:D:1020:LEU:CB	2.58	0.44
3:D:1400:VAL:O	3:D:1400:VAL:HG12	2.17	0.44
3:D:1467:ILE:C	3:D:1469:GLY:H	2.20	0.44
4:E:4:PRO:CG	4:E:66:LYS:HE2	2.47	0.44
1:A:26:GLU:HB3	1:A:27:PRO:HD2	1.88	0.44
1:A:74:ASP:OD2	2:C:627:ARG:NH2	2.50	0.44
1:A:160:ASP:O	1:A:161:ARG:C	2.55	0.44
1:A:185:ARG:NH2	1:A:194:LYS:CE	2.80	0.44
2:C:103:LYS:HD3	2:C:103:LYS:HA	1.85	0.44
2:C:394:PHE:HB2	5:C:1640:RFP:O8	2.18	0.44
2:C:413:LEU:HD11	2:C:448:ASN:OD1	2.17	0.44
2:C:520:GLU:C	2:C:522:VAL:N	2.69	0.44
2:C:527:GLU:O	2:C:529:VAL:N	2.50	0.44
2:C:544:THR:O	2:C:545:ASN:C	2.54	0.44
2:C:722:ILE:HD13	2:C:821:GLU:OE1	2.17	0.44
2:C:729:LEU:CB	2:C:734:LEU:HD21	2.48	0.44
2:C:754:ILE:HD13	2:C:791:ARG:NE	2.33	0.44
2:C:1070:ILE:N	2:C:1070:ILE:HD12	2.32	0.44
3:D:22:SER:C	3:D:24:GLY:H	2.21	0.44
3:D:43(U):UNK:O	3:D:44(U):UNK:CB	2.66	0.44
3:D:947:ILE:HA	3:D:1020:LEU:HD13	1.99	0.44
3:D:960:LYS:O	3:D:961:GLN:C	2.56	0.44
3:D:1133:ARG:HG3	3:D:1134:LEU:N	2.31	0.44
1:A:43:ILE:O	1:A:44:LEU:C	2.56	0.44
1:A:82:LEU:HD23	1:A:129:ILE:HD12	1.98	0.44
1:B:29:GLU:O	1:B:30:ARG:C	2.55	0.44
1:B:169:ALA:HB1	1:B:171:PHE:CE1	2.52	0.44
2:C:8:ARG:HB3	2:C:494:TYR:OH	2.18	0.44
2:C:9:ILE:O	2:C:10:ARG:HB3	2.18	0.44
2:C:15:LEU:HD21	2:C:461:VAL:HG23	1.94	0.44
2:C:73:ILE:CD1	2:C:94:LEU:HD13	2.48	0.44
2:C:79:SER:O	2:C:82:GLU:HB3	2.16	0.44
2:C:121:MET:HA	2:C:126:SER:O	2.17	0.44
2:C:202:TYR:CB	2:C:207:LEU:HD13	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:267:TYR:HD1	2:C:273:GLY:HA3	1.81	0.44
2:C:328:LEU:HB3	2:C:467:ILE:HG21	1.98	0.44
2:C:341:ALA:O	2:C:344:PHE:N	2.45	0.44
2:C:445:GLU:HG3	5:C:1640:RFP:C30	2.47	0.44
2:C:520:GLU:O	2:C:521:PRO:C	2.55	0.44
2:C:605:LYS:HA	2:C:612:ALA:N	2.30	0.44
2:C:648:ARG:HH11	2:C:648:ARG:CG	2.27	0.44
2:C:669:GLY:HA3	2:C:995:MET:HA	1.98	0.44
2:C:922:PHE:CE2	2:C:964:LYS:HB2	2.52	0.44
3:D:98:PRO:O	3:D:514:LEU:HD13	2.18	0.44
3:D:633:VAL:CG2	3:D:634:GLY:N	2.80	0.44
3:D:853:VAL:HG21	3:D:877:PRO:HB3	1.99	0.44
3:D:864:VAL:CG1	3:D:874:GLU:O	2.66	0.44
3:D:984:THR:O	3:D:988:ARG:N	2.48	0.44
3:D:1047:LYS:CA	3:D:1053:PHE:CE1	2.92	0.44
3:D:1353:GLN:O	3:D:1354:LYS:C	2.55	0.44
3:D:1461:GLY:N	3:D:1464:GLU:OE1	2.47	0.44
4:E:22:VAL:HG21	4:E:75:PHE:CD2	2.52	0.44
1:A:164:ALA:O	1:A:165:ILE:C	2.56	0.44
1:A:221:HIS:HA	1:A:224:TYR:CE2	2.52	0.44
2:C:569:VAL:HA	2:C:570:PRO:HD2	1.77	0.44
2:C:605:LYS:CG	2:C:606:VAL:H	2.30	0.44
2:C:606:VAL:O	2:C:607:ASP:HB2	2.18	0.44
2:C:713:ARG:HH12	2:C:816:LYS:CG	2.31	0.44
2:C:895:TYR:HD2	2:C:896:PHE:CE1	2.36	0.44
2:C:959:PRO:CG	2:C:960:GLU:N	2.80	0.44
3:D:629:SER:HB3	3:D:726:ILE:CD1	2.47	0.44
3:D:641:GLN:HB3	3:D:719:VAL:CG2	2.46	0.44
3:D:776:GLU:HB3	3:D:777:PRO:HD2	1.98	0.44
3:D:879:ARG:NH1	3:D:904:VAL:HG13	2.32	0.44
3:D:911:LEU:HD12	3:D:911:LEU:HA	1.85	0.44
3:D:1069:GLU:HG3	3:D:1072:ILE:CG1	2.48	0.44
3:D:1093:TYR:HE2	3:D:1097:LYS:CE	2.31	0.44
3:D:1304:LYS:N	3:D:1304:LYS:CD	2.80	0.44
4:E:63:TRP:O	4:E:64:ALA:C	2.56	0.44
1:A:18:ASP:O	1:A:19:HIS:CB	2.66	0.44
1:A:201:THR:HG22	1:A:202:ASP:N	2.31	0.44
1:A:225:PHE:HD2	1:B:11:PHE:CE1	2.36	0.44
1:B:160:ASP:O	1:B:162:ILE:N	2.50	0.44
2:C:12:VAL:CG1	2:C:13:ILE:N	2.62	0.44
2:C:141:HIS:CE1	2:C:334:ARG:HG3	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:236:VAL:CG2	2:C:250:LYS:HA	2.47	0.44
2:C:340:MET:SD	2:C:340:MET:C	2.96	0.44
2:C:399:ASN:HD21	2:C:401:LEU:CB	2.27	0.44
2:C:488:ALA:O	2:C:490:GLU:N	2.51	0.44
2:C:584:GLU:H	2:C:584:GLU:HG3	1.31	0.44
2:C:613:VAL:H	2:C:621:VAL:HA	1.83	0.44
2:C:628:TYR:HE2	2:C:703:ILE:HD13	1.81	0.44
2:C:688:ILE:CG2	2:C:869:VAL:HG23	2.48	0.44
2:C:705:ILE:HA	2:C:828:ALA:HA	2.00	0.44
2:C:714:ASP:O	2:C:715:THR:O	2.35	0.44
2:C:835:VAL:HG13	2:C:850:ALA:O	2.18	0.44
2:C:1021:LEU:O	2:C:1022:GLY:C	2.56	0.44
3:D:88:TYR:C	3:D:520:LEU:CD1	2.85	0.44
3:D:143:ASP:O	3:D:145:VAL:N	2.51	0.44
3:D:772:PRO:CG	3:D:778:LEU:HD23	2.47	0.44
3:D:791:TYR:HE1	3:D:1023:MET:HG3	1.82	0.44
3:D:906:GLN:O	3:D:907:GLU:HB2	2.18	0.44
3:D:1047:LYS:HA	3:D:1053:PHE:CZ	2.49	0.44
3:D:1114:THR:HA	3:D:1189:ARG:HH11	1.83	0.44
3:D:1125:MET:HG2	3:D:1126:ASP:H	1.81	0.44
3:D:1231:GLU:O	3:D:1233:GLY:N	2.51	0.44
4:E:32:ARG:HG3	4:E:33:HIS:N	2.32	0.44
1:A:86:VAL:HG13	1:A:123:MET:HB3	1.99	0.44
1:B:188:GLN:NE2	1:B:188:GLN:O	2.50	0.44
2:C:598:GLU:HB3	2:C:599:GLU:H	1.59	0.44
2:C:925:TYR:CE2	2:C:972:VAL:HG21	2.53	0.44
2:C:983:PHE:O	2:C:984:GLU:C	2.55	0.44
3:D:92:HIS:O	3:D:93:ILE:C	2.57	0.44
3:D:680:GLN:C	3:D:681:ARG:HG3	2.38	0.44
3:D:688:TRP:HA	3:D:688:TRP:HE3	1.82	0.44
3:D:1117:TYR:C	3:D:1118:ILE:HD12	2.38	0.44
3:D:1236:LEU:HD12	3:D:1256:LEU:CD1	2.47	0.44
2:C:11:GLU:OE1	2:C:473:ARG:CD	2.66	0.44
2:C:11:GLU:OE1	2:C:473:ARG:CG	2.66	0.44
2:C:172:ILE:HG22	2:C:173:ASP:N	2.32	0.44
2:C:278:GLU:HA	2:C:283:VAL:HA	1.99	0.44
2:C:773:LEU:O	2:C:774:LEU:C	2.56	0.44
2:C:1038:TRP:CZ2	3:D:1096:ARG:HA	2.52	0.44
2:C:1088:LEU:HD23	3:D:1468:LEU:CD2	2.48	0.44
3:D:462:GLN:O	3:D:463:GLU:C	2.56	0.44
3:D:628:ARG:O	3:D:629:SER:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:896:ALA:HA	3:D:899:LEU:HD22	2.00	0.44
3:D:1047:LYS:HB3	3:D:1048:PRO:CD	2.45	0.44
3:D:1220:ALA:O	3:D:1224:VAL:HG23	2.18	0.44
3:D:1252:ILE:HG21	3:D:1261:GLU:OE1	2.18	0.44
3:D:1274:ILE:O	3:D:1275:SER:C	2.57	0.44
4:E:3:GLU:HB3	4:E:4:PRO:HD2	1.99	0.44
1:A:100:ILE:HG22	1:A:101:LEU:H	1.82	0.43
1:B:59:GLU:OE1	1:B:60:ASP:N	2.50	0.43
1:B:95:ALA:O	1:B:96:SER:CB	2.60	0.43
2:C:64:LEU:N	2:C:101:ILE:O	2.51	0.43
2:C:100:LEU:HD11	2:C:369:PRO:CD	2.46	0.43
2:C:104:ASP:N	2:C:104:ASP:OD1	2.50	0.43
2:C:343:GLN:HG2	2:C:385:PHE:HB2	2.00	0.43
2:C:710:ILE:N	2:C:710:ILE:CD1	2.74	0.43
2:C:738:ASP:HA	2:C:743:VAL:HA	2.00	0.43
2:C:754:ILE:HG22	2:C:754:ILE:O	2.18	0.43
2:C:794:PRO:HG2	2:C:1027:PHE:CB	2.48	0.43
2:C:881:ASN:HB2	3:D:1061:PHE:HE2	1.81	0.43
3:D:564:GLU:HG3	3:D:568:ARG:NE	2.29	0.43
3:D:606:ILE:HD12	3:D:606:ILE:N	2.28	0.43
3:D:658:LEU:O	3:D:661:MET:N	2.51	0.43
3:D:1251:ASP:N	3:D:1269:LYS:HZ2	1.84	0.43
1:A:41:ARG:NH1	1:A:42:ARG:N	2.66	0.43
1:B:151:VAL:O	1:B:169:ALA:N	2.46	0.43
2:C:54:ILE:HG13	2:C:55:GLU:O	2.18	0.43
2:C:95:TYR:CD1	2:C:112:GLU:OE1	2.71	0.43
2:C:443:THR:O	2:C:444:PRO:O	2.36	0.43
2:C:626:ARG:CZ	2:C:637:PHE:CZ	3.00	0.43
2:C:760:SER:OG	2:C:762:LYS:HG3	2.18	0.43
2:C:836:GLY:C	2:C:837:ASP:OD2	2.55	0.43
2:C:1042:ALA:CB	3:D:1227:GLU:OE1	2.66	0.43
5:C:1640:RFP:N1	5:C:1640:RFP:N2	2.65	0.43
3:D:564:GLU:O	3:D:567:ILE:HG22	2.19	0.43
3:D:851:LEU:HD12	3:D:851:LEU:O	2.18	0.43
3:D:899:LEU:O	3:D:900:ILE:CG1	2.53	0.43
3:D:905:PRO:CG	3:D:906:GLN:H	2.31	0.43
3:D:931:LEU:HD13	3:D:931:LEU:HA	1.84	0.43
3:D:969:ARG:CZ	3:D:970:LYS:HE3	2.47	0.43
3:D:1011:PHE:CE2	3:D:1022:VAL:CG1	3.01	0.43
3:D:1066:THR:C	3:D:1068:LEU:N	2.71	0.43
3:D:1192:LEU:HD21	3:D:1369:GLU:HA	2.00	0.43

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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:133:GLU:HG2	1:B:134:GLU:N	2.33	0.43
2:C:306:THR:HG22	2:C:307:LEU:N	2.34	0.43
2:C:398:THR:O	2:C:635:THR:HG21	2.19	0.43
2:C:428:ARG:O	2:C:429:ASP:HB2	2.18	0.43
2:C:491:GLU:CA	2:C:531:PHE:HA	2.21	0.43
2:C:539:VAL:HB	2:C:540:PHE:CD1	2.53	0.43
2:C:568:ALA:O	2:C:569:VAL:CG1	2.66	0.43
2:C:595:LEU:HD21	2:C:623:HIS:CB	2.47	0.43
2:C:724:ARG:C	2:C:726:ILE:HD12	2.38	0.43
3:D:669:ASN:O	3:D:672:ALA:N	2.50	0.43
3:D:700:VAL:HG13	3:D:748:HIS:O	2.18	0.43
3:D:1057:VAL:HG13	3:D:1067:VAL:HG11	2.01	0.43
3:D:1231:GLU:C	3:D:1233:GLY:H	2.21	0.43
3:D:1250:THR:HG22	3:D:1251:ASP:O	2.18	0.43
3:D:1306:PRO:O	3:D:1308:ASP:N	2.52	0.43
3:D:1323:GLN:H	3:D:1324:PRO:HD2	1.83	0.43
3:D:1443:THR:O	3:D:1444:THR:C	2.57	0.43
1:A:28:LEU:O	1:A:192:LEU:HB3	2.19	0.43
1:B:188:GLN:HG3	3:D:688:TRP:HD1	1.84	0.43
2:C:99:GLN:OE1	2:C:109:LYS:HE3	2.18	0.43
2:C:184:MET:HE2	2:C:196:LEU:HD22	1.99	0.43
2:C:399:ASN:ND2	2:C:399:ASN:O	2.44	0.43
2:C:467:ILE:HG22	2:C:484:VAL:CG2	2.48	0.43
2:C:606:VAL:HG22	2:C:606:VAL:O	2.19	0.43
2:C:944:LEU:C	2:C:946:ARG:N	2.71	0.43
3:D:764:LEU:HD23	3:D:767:HIS:CD2	2.54	0.43
3:D:806:PHE:N	3:D:827:ILE:HA	2.17	0.43
3:D:836:VAL:CB	3:D:858:LEU:HD21	2.49	0.43
3:D:853:VAL:O	3:D:854:ALA:O	2.35	0.43
3:D:885:ILE:HG12	3:D:937:TYR:CD2	2.54	0.43
3:D:1258:ARG:HG3	3:D:1258:ARG:NH1	2.33	0.43
3:D:1480:PHE:HE2	4:E:15:SER:HB2	1.82	0.43
3:D:1481:VAL:HG12	4:E:21:VAL:HG21	1.98	0.43
1:A:71:VAL:HG22	1:A:132:LEU:HB3	2.00	0.43
1:B:61:VAL:O	1:B:62:LEU:O	2.36	0.43
1:B:177:VAL:HG13	1:B:199:ILE:CD1	2.49	0.43
2:C:15:LEU:CD1	2:C:461:VAL:HG21	2.37	0.43
2:C:84:ARG:HE	2:C:128:ILE:HG12	1.84	0.43
2:C:89:THR:HA	2:C:130:ASN:H	1.84	0.43
2:C:163:ILE:CG2	2:C:265:LYS:HD2	2.48	0.43
2:C:413:LEU:CD2	2:C:451:LEU:HD13	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:769:PRO:HG2	2:C:770:GLU:HG3	2.00	0.43
2:C:788:THR:O	2:C:788:THR:HG23	2.19	0.43
2:C:1095:LEU:O	2:C:1096:ALA:HB3	2.18	0.43
3:D:110:SER:O	3:D:112:ILE:N	2.48	0.43
3:D:491:LYS:HE2	3:D:495:ARG:HH21	1.84	0.43
3:D:916:TYR:C	3:D:918:ALA:N	2.72	0.43
3:D:1103:HIS:O	3:D:1105:ILE:HG12	2.19	0.43
4:E:38:THR:HG23	4:E:63:TRP:CZ3	2.53	0.43
1:A:221:HIS:O	1:A:222:LEU:C	2.57	0.43
1:B:70:GLY:O	1:B:132:LEU:HB2	2.18	0.43
1:B:173:PRO:HA	1:B:203:GLY:CA	2.48	0.43
1:B:174:VAL:O	1:B:174:VAL:HG23	2.19	0.43
2:C:5:ARG:NH2	2:C:10:ARG:NH1	2.66	0.43
2:C:110:GLU:HB2	2:C:369:PRO:HB2	2.00	0.43
2:C:218:VAL:O	2:C:220:GLY:N	2.52	0.43
2:C:254:LEU:O	2:C:254:LEU:HD12	2.19	0.43
2:C:260:LEU:HD23	2:C:261:LEU:CB	2.45	0.43
2:C:397:GLU:HB2	2:C:632:ASN:HD22	1.83	0.43
2:C:648:ARG:CG	2:C:648:ARG:NH1	2.81	0.43
2:C:730:SER:CA	2:C:734:LEU:HD11	2.44	0.43
2:C:796:GLU:HA	3:D:681:ARG:NH2	2.33	0.43
2:C:967:PHE:C	2:C:969:LEU:H	2.22	0.43
2:C:974:LEU:HD23	2:C:987:ILE:HG21	2.01	0.43
3:D:15:PRO:O	3:D:19:ARG:HG3	2.19	0.43
3:D:483:HIS:N	3:D:484:PRO:CD	2.54	0.43
3:D:711:LEU:HD21	3:D:768:ASN:O	2.19	0.43
3:D:1047:LYS:HG2	3:D:1053:PHE:CZ	2.54	0.43
4:E:25:LYS:NZ	4:E:29:GLN:OE1	2.49	0.43
4:E:28:GLN:O	4:E:29:GLN:HB2	2.19	0.43
1:A:94:MET:HE1	1:A:119:ASP:HB2	1.95	0.43
1:B:40:LEU:O	1:B:44:LEU:HD22	2.18	0.43
1:B:41:ARG:HA	1:B:177:VAL:HG11	2.01	0.43
1:B:171:PHE:O	1:B:172:SER:OG	2.33	0.43
2:C:148:PHE:HA	2:C:159:ILE:HA	2.01	0.43
2:C:182:VAL:HG11	2:C:307:LEU:HD11	2.01	0.43
2:C:205:GLU:OE2	2:C:209:ARG:HD2	2.19	0.43
2:C:424:GLY:O	2:C:427:VAL:HG23	2.18	0.43
2:C:631:SER:C	2:C:634:GLY:H	2.23	0.43
2:C:710:ILE:HD12	2:C:710:ILE:H	1.83	0.43
3:D:472:LYS:O	3:D:473:LEU:C	2.58	0.43
3:D:759:ALA:HA	3:D:763:MET:CG	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:793:THR:CA	3:D:879:ARG:HH12	2.31	0.43
3:D:901:GLN:O	3:D:903:ASP:N	2.52	0.43
3:D:952:ASP:C	3:D:954:ALA:N	2.71	0.43
3:D:1114:THR:CB	3:D:1189:ARG:NH1	2.82	0.43
3:D:1122:LEU:CD1	3:D:1186:VAL:HG23	2.49	0.43
3:D:1154:GLU:O	3:D:1155:ALA:CB	2.63	0.43
3:D:1156:LEU:H	3:D:1182:GLU:CD	2.21	0.43
1:A:127:LEU:HG	1:A:127:LEU:O	2.19	0.42
1:A:162:ILE:CG2	1:A:163:ASN:H	2.30	0.42
2:C:63:GLY:O	2:C:64:LEU:HB2	2.19	0.42
2:C:211:LEU:HG	2:C:212:SER:N	2.33	0.42
2:C:221:LEU:O	2:C:221:LEU:HG	2.18	0.42
2:C:310:LEU:O	2:C:313:LEU:N	2.44	0.42
2:C:442:GLU:OE1	2:C:558:ALA:HB3	2.18	0.42
2:C:549:PHE:CE2	2:C:886:LEU:HB3	2.54	0.42
2:C:745:ILE:C	2:C:747:ALA:N	2.71	0.42
2:C:754:ILE:CD1	2:C:791:ARG:NE	2.80	0.42
2:C:953:VAL:HG12	2:C:954:SER:N	2.33	0.42
2:C:1112:PHE:O	2:C:1114:GLY:N	2.52	0.42
3:D:498:VAL:O	3:D:501:ALA:HB3	2.19	0.42
3:D:694:VAL:O	3:D:696:HIS:N	2.52	0.42
3:D:734:GLU:OE2	3:D:780:LYS:NZ	2.52	0.42
3:D:770:LEU:HD23	3:D:927:THR:HG21	2.00	0.42
3:D:772:PRO:CD	3:D:778:LEU:N	2.81	0.42
3:D:936:TYR:C	3:D:936:TYR:HD2	2.22	0.42
3:D:957:PRO:HD3	3:D:1007:VAL:HG23	2.01	0.42
4:E:13:VAL:HG11	4:E:19:LEU:N	2.34	0.42
1:A:36:LEU:O	1:A:40:LEU:HG	2.19	0.42
1:A:118:ALA:O	1:A:120:VAL:N	2.48	0.42
1:A:142:VAL:O	1:A:142:VAL:CG2	2.58	0.42
1:B:34:VAL:O	1:B:36:LEU:N	2.52	0.42
1:B:76:VAL:O	1:B:79:ILE:HB	2.19	0.42
2:C:79:SER:OG	2:C:82:GLU:CB	2.64	0.42
2:C:164:PRO:CG	2:C:168:ARG:HG2	2.49	0.42
2:C:254:LEU:C	2:C:254:LEU:HD12	2.39	0.42
2:C:341:ALA:CB	2:C:345:ARG:HH12	2.32	0.42
2:C:676:ILE:HD12	2:C:676:ILE:N	2.33	0.42
2:C:739:GLU:O	2:C:739:GLU:HG3	2.19	0.42
2:C:922:PHE:O	2:C:926:PHE:N	2.51	0.42
2:C:1069:ALA:O	2:C:1075:ASP:O	2.37	0.42
3:D:468:LEU:C	3:D:470:LEU:H	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:707:THR:HG23	3:D:712:GLY:HA3	2.00	0.42
3:D:752:SER:O	3:D:755:ALA:N	2.47	0.42
3:D:930:LEU:HD12	3:D:934:LEU:HG	2.01	0.42
3:D:1069:GLU:O	3:D:1070:TYR:C	2.58	0.42
3:D:1149:LEU:HD23	3:D:1188:VAL:HG23	2.00	0.42
3:D:1151:ARG:HA	3:D:1162:GLU:HG3	2.01	0.42
3:D:1252:ILE:HD12	3:D:1269:LYS:HB2	2.01	0.42
3:D:1275:SER:O	3:D:1319:VAL:HA	2.19	0.42
3:D:1303:TYR:O	3:D:1305:LEU:N	2.52	0.42
1:A:41:ARG:NE	2:C:860:HIS:CE1	2.85	0.42
1:B:183:ASP:HA	1:B:192:LEU:O	2.19	0.42
2:C:74:GLY:O	2:C:75:ASP:C	2.57	0.42
2:C:342:ASP:CA	2:C:345:ARG:HH11	2.32	0.42
2:C:348:LEU:C	2:C:350:ARG:N	2.71	0.42
2:C:349:ALA:O	2:C:350:ARG:HG3	2.20	0.42
2:C:515:ALA:CB	3:D:1069:GLU:OE2	2.67	0.42
2:C:518:ARG:C	2:C:520:GLU:N	2.70	0.42
2:C:574:ALA:O	2:C:669:GLY:O	2.37	0.42
2:C:686:ASP:CG	3:D:739:ASP:OD2	2.57	0.42
2:C:816:LYS:HA	2:C:817:PRO:HD2	1.88	0.42
2:C:1059:ASP:HA	2:C:1083:GLU:HB2	2.01	0.42
2:C:1071:ILE:HD11	3:D:655:PRO:HB3	2.00	0.42
3:D:540:LEU:HD11	3:D:603:LEU:HD13	2.00	0.42
3:D:584:ASN:HB2	3:D:602:SER:HB3	2.01	0.42
3:D:795:VAL:CA	3:D:862:ASP:CB	2.97	0.42
3:D:907:GLU:O	3:D:908:LYS:CB	2.67	0.42
3:D:1004:THR:OG1	3:D:1036:ARG:HB2	2.19	0.42
3:D:1030:GLY:O	3:D:1031:ASN:CB	2.67	0.42
3:D:1142:SER:C	3:D:1364:HIS:HD2	2.22	0.42
3:D:1194:CYS:SG	3:D:1201:CYS:CB	3.06	0.42
3:D:1326:THR:O	3:D:1327:ARG:CB	2.65	0.42
3:D:1327:ARG:HG3	3:D:1327:ARG:O	2.19	0.42
3:D:1427:SER:C	3:D:1429:LEU:N	2.72	0.42
1:A:41:ARG:HG2	1:A:177:VAL:HG12	1.99	0.42
1:A:63:HIS:HA	1:A:165:ILE:HG22	2.01	0.42
1:B:29:GLU:OE1	1:B:189:ARG:NH1	2.52	0.42
1:B:32:PHE:C	1:B:34:VAL:N	2.72	0.42
1:B:101:LEU:N	1:B:140:MET:O	2.52	0.42
1:B:109:VAL:HG23	1:B:132:LEU:HD22	2.01	0.42
2:C:11:GLU:CD	2:C:473:ARG:NE	2.73	0.42
2:C:122:THR:HG22	2:C:123:GLU:H	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:268:ASP:HB2	2:C:269:LEU:H	1.54	0.42
2:C:342:ASP:HA	2:C:345:ARG:HH11	1.83	0.42
2:C:517:ARG:CG	2:C:518:ARG:N	2.82	0.42
2:C:547:ILE:HD12	2:C:550:LEU:HD13	2.00	0.42
2:C:603:VAL:O	2:C:604:VAL:CG2	2.66	0.42
2:C:676:ILE:HD12	2:C:676:ILE:H	1.84	0.42
3:D:586:ARG:C	3:D:587:ARG:HD3	2.40	0.42
3:D:632:VAL:CG1	3:D:633:VAL:N	2.81	0.42
3:D:907:GLU:HB3	3:D:911:LEU:CD2	2.48	0.42
3:D:937:TYR:O	3:D:938:GLY:C	2.58	0.42
3:D:1071:PHE:O	3:D:1072:ILE:C	2.56	0.42
3:D:1114:THR:CA	3:D:1189:ARG:HH11	2.32	0.42
3:D:1471:LEU:O	3:D:1472:ILE:C	2.57	0.42
4:E:26:ARG:NH2	4:E:30:LEU:HD13	2.35	0.42
4:E:64:ALA:O	4:E:68:LEU:N	2.52	0.42
1:A:13:ALA:O	1:B:230:ALA:CB	2.68	0.42
1:A:32:PHE:O	1:A:33:GLY:C	2.57	0.42
1:A:143:ARG:NH1	1:A:145:ASP:OD1	2.52	0.42
1:B:73:GLU:HG3	1:B:77:GLU:HG2	2.01	0.42
1:B:202:ASP:O	1:B:204:SER:N	2.52	0.42
2:C:9:ILE:O	2:C:10:ARG:CB	2.68	0.42
2:C:72:ARG:NE	2:C:95:TYR:HE1	2.17	0.42
2:C:193:LEU:HD13	2:C:193:LEU:C	2.39	0.42
2:C:261:LEU:CD1	2:C:263:ASP:HB3	2.47	0.42
2:C:418:LEU:HG	2:C:418:LEU:O	2.19	0.42
2:C:534:VAL:N	2:C:538:GLN:HE22	2.17	0.42
2:C:549:PHE:CD1	2:C:886:LEU:O	2.71	0.42
2:C:923:ASN:N	2:C:924:LEU:HD23	2.35	0.42
3:D:558:LEU:HD21	3:D:567:ILE:CD1	2.49	0.42
3:D:609:GLY:HA2	3:D:615:ARG:NE	2.34	0.42
3:D:722:GLU:HB3	3:D:723:GLY:H	1.48	0.42
3:D:884:ARG:O	3:D:887:GLY:N	2.52	0.42
3:D:1258:ARG:HG3	3:D:1258:ARG:HH11	1.84	0.42
3:D:1329:ALA:O	3:D:1330:ILE:C	2.57	0.42
3:D:1336:LEU:CD1	3:D:1340:GLY:C	2.88	0.42
3:D:1378:TYR:CD1	3:D:1378:TYR:N	2.88	0.42
3:D:1476:THR:HG22	4:E:21:VAL:HG23	2.00	0.42
1:B:57:TYR:O	1:B:140:MET:HA	2.20	0.42
1:B:206:THR:OG1	1:B:209:GLU:HG3	2.20	0.42
2:C:34:VAL:O	2:C:34:VAL:HG12	2.19	0.42
2:C:266:ARG:O	2:C:266:ARG:HG3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:395:LYS:HG2	2:C:397:GLU:CD	2.40	0.42
2:C:573:ARG:HH11	2:C:573:ARG:CG	2.29	0.42
2:C:586:ARG:O	2:C:587:VAL:C	2.58	0.42
2:C:613:VAL:CG2	2:C:619:ARG:HE	2.31	0.42
2:C:710:ILE:CG1	2:C:790:LEU:HB2	2.48	0.42
2:C:755:LEU:CD1	2:C:756:VAL:HG23	2.50	0.42
2:C:1051:GLU:OE2	3:D:751:LEU:HB3	2.19	0.42
3:D:570:GLU:HA	3:D:573:MET:HE2	2.00	0.42
3:D:713:ILE:HG22	3:D:714:GLN:N	2.35	0.42
3:D:734:GLU:O	3:D:735:ALA:C	2.57	0.42
3:D:935:LYS:HG2	3:D:939:PHE:CD1	2.54	0.42
3:D:1201:CYS:SG	3:D:1204:CYS:HB2	2.60	0.42
3:D:1466:VAL:O	3:D:1467:ILE:C	2.57	0.42
4:E:6:ILE:HG22	4:E:10:PHE:CD1	2.54	0.42
4:E:38:THR:CG2	4:E:40:LEU:H	2.24	0.42
1:A:90:LEU:HD21	1:A:121:GLU:OE2	2.20	0.42
1:A:115:THR:O	1:A:115:THR:CG2	2.67	0.42
1:B:129:ILE:O	1:B:130:ALA:CB	2.68	0.42
2:C:194:VAL:HG22	2:C:221:LEU:HD12	2.02	0.42
2:C:208:VAL:HG13	2:C:212:SER:OG	2.20	0.42
2:C:561:GLY:HA3	2:C:842:ARG:O	2.20	0.42
2:C:592:LEU:HA	2:C:592:LEU:HD23	1.80	0.42
2:C:603:VAL:HB	2:C:604:VAL:H	1.61	0.42
2:C:693:GLU:O	2:C:694:LEU:C	2.57	0.42
2:C:699:PHE:C	2:C:701:THR:H	2.22	0.42
2:C:750:LYS:HE2	2:C:753:ASP:OD2	2.18	0.42
2:C:772:ARG:HH11	2:C:776:SER:HB3	1.84	0.42
2:C:985:GLY:O	2:C:986:PRO:C	2.57	0.42
2:C:1055:ILE:HD11	2:C:1079:PRO:CG	2.49	0.42
2:C:1067:TYR:CE1	2:C:1071:ILE:HD11	2.55	0.42
2:C:1113:GLU:C	2:C:1115:LEU:N	2.69	0.42
3:D:497:GLU:CG	3:D:1389:LEU:HD21	2.50	0.42
3:D:638:LYS:O	3:D:639:LEU:C	2.55	0.42
3:D:654:LYS:HB3	3:D:655:PRO:CD	2.45	0.42
3:D:729:HIS:CE1	3:D:935:LYS:HD3	2.54	0.42
3:D:795:VAL:CG1	3:D:796:ARG:N	2.83	0.42
3:D:795:VAL:CG1	3:D:864:VAL:CG2	2.92	0.42
3:D:876:SER:O	3:D:879:ARG:N	2.53	0.42
3:D:905:PRO:CD	3:D:906:GLN:H	2.32	0.42
3:D:953:ASP:OD1	3:D:1020:LEU:CB	2.68	0.42
3:D:953:ASP:OD1	3:D:1020:LEU:CG	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:999:THR:O	3:D:1000:THR:C	2.58	0.42
4:E:26:ARG:NH2	4:E:67:GLU:OE2	2.53	0.42
4:E:80:VAL:CB	4:E:81:PRO:CD	2.97	0.42
1:A:56:VAL:CG1	1:A:167:VAL:HG21	2.50	0.42
1:B:100:ILE:HG22	1:B:101:LEU:N	2.35	0.42
2:C:32:ALA:O	2:C:34:VAL:N	2.52	0.42
2:C:257:LEU:C	2:C:259:GLY:N	2.72	0.42
2:C:342:ASP:N	2:C:345:ARG:NH1	2.68	0.42
2:C:420:ARG:HD3	2:C:420:ARG:H	1.84	0.42
2:C:892:LEU:C	2:C:894:GLY:N	2.73	0.42
3:D:106:LYS:O	3:D:110:SER:N	2.53	0.42
3:D:496:LEU:O	3:D:500:ARG:HB2	2.19	0.42
3:D:876:SER:O	3:D:879:ARG:HG3	2.20	0.42
3:D:984:THR:O	3:D:985:ASP:C	2.59	0.42
3:D:1145:TYR:CD2	3:D:1146:GLY:N	2.80	0.42
3:D:1153:VAL:O	3:D:1153:VAL:CG1	2.64	0.42
3:D:1276:GLU:HG3	3:D:1303:TYR:OH	2.20	0.42
1:A:25:LEU:HB3	1:A:26:GLU:H	1.61	0.42
1:B:21:GLY:O	1:B:23:PHE:CD2	2.73	0.42
1:B:159:LYS:O	1:B:161:ARG:N	2.40	0.42
2:C:21:ILE:HD11	2:C:455:LEU:CD2	2.50	0.42
2:C:433:THR:HG21	3:D:1075:HIS:CD2	2.55	0.42
2:C:471:TYR:O	2:C:472:ARG:HG2	2.20	0.42
2:C:597:ALA:CA	2:C:614:ARG:HH11	2.26	0.42
2:C:822:VAL:O	2:C:822:VAL:HG12	2.19	0.42
2:C:874:LEU:CD1	3:D:787:LEU:HD22	2.47	0.42
2:C:885:ILE:HD12	2:C:885:ILE:N	2.34	0.42
2:C:892:LEU:HA	2:C:895:TYR:CB	2.50	0.42
2:C:897:LEU:O	2:C:898:GLY:C	2.58	0.42
2:C:1025:ALA:HB1	2:C:1026:GLN:NE2	2.35	0.42
3:D:69:GLU:O	3:D:70:ALA:CB	2.68	0.42
3:D:151:GLN:O	3:D:154:THR:N	2.53	0.42
3:D:732:VAL:HG22	3:D:769:LEU:HD11	2.01	0.42
3:D:879:ARG:CZ	3:D:904:VAL:HG22	2.48	0.42
3:D:964:LEU:O	3:D:965:GLU:HB3	2.20	0.42
3:D:1094:LEU:O	3:D:1097:LYS:N	2.53	0.42
1:A:27:PRO:HG2	1:A:27:PRO:O	2.19	0.42
2:C:34:VAL:O	2:C:35:PRO:C	2.58	0.42
2:C:56:GLU:OE1	2:C:64:LEU:O	2.38	0.42
2:C:148:PHE:CE1	2:C:309:TYR:HD2	2.38	0.42
2:C:202:TYR:O	2:C:203:ASP:CG	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:252:LYS:HG2	2:C:256:TYR:HD1	1.83	0.42
2:C:278:GLU:O	2:C:283:VAL:HG22	2.19	0.42
2:C:332:ARG:NH1	2:C:465:GLY:O	2.53	0.42
2:C:358:ARG:HB2	2:C:372:LEU:HD23	2.00	0.42
2:C:415:PRO:O	2:C:416:GLY:C	2.58	0.42
2:C:421:GLU:O	2:C:423:ALA:N	2.53	0.42
2:C:539:VAL:HB	2:C:540:PHE:CE1	2.54	0.42
2:C:937:ASP:OD1	2:C:939:ARG:CD	2.68	0.42
3:D:638:LYS:CA	3:D:729:HIS:CD2	3.03	0.42
3:D:710:ARG:HG3	3:D:711:LEU:N	2.35	0.42
3:D:874:GLU:O	3:D:875:THR:O	2.38	0.42
3:D:920:LEU:N	3:D:920:LEU:CD2	2.83	0.42
3:D:1108:ARG:O	3:D:1109:GLU:CG	2.65	0.42
3:D:1294:VAL:O	3:D:1301:LYS:N	2.53	0.42
4:E:54:LEU:O	4:E:55:TYR:CB	2.67	0.42
1:B:15:THR:C	1:B:17:GLY:N	2.74	0.41
1:B:41:ARG:HD3	1:B:41:ARG:C	2.40	0.41
1:B:222:LEU:O	1:B:223:ASN:C	2.57	0.41
2:C:43:GLY:O	2:C:44:ILE:C	2.58	0.41
2:C:140:ILE:HD12	2:C:331:ARG:HD2	2.02	0.41
2:C:197:LEU:HD23	2:C:197:LEU:HA	1.92	0.41
2:C:200:LEU:HD21	2:C:290:LEU:HD22	2.02	0.41
2:C:552:HIS:CD2	2:C:886:LEU:HD12	2.55	0.41
2:C:605:LYS:HD2	2:C:607:ASP:CG	2.40	0.41
2:C:674:VAL:HG11	2:C:992:MET:HB2	2.02	0.41
2:C:728:HIS:C	2:C:730:SER:N	2.73	0.41
2:C:734:LEU:O	2:C:737:LEU:O	2.38	0.41
2:C:873:PRO:CG	2:C:874:LEU:N	2.78	0.41
2:C:1105:LYS:C	2:C:1108:PRO:HD3	2.40	0.41
3:D:9:ARG:HA	3:D:1456:LYS:HA	2.02	0.41
3:D:583:ASP:OD1	3:D:604:THR:OG1	2.26	0.41
3:D:974:ILE:CG2	3:D:975:GLU:N	2.83	0.41
3:D:1011:PHE:C	3:D:1013:GLU:N	2.73	0.41
3:D:1130:ARG:HG2	3:D:1130:ARG:HH11	1.85	0.41
3:D:1402:ALA:HB3	3:D:1415:VAL:HG11	2.01	0.41
1:B:51:THR:HA	1:B:145:ASP:O	2.19	0.41
1:B:109:VAL:HG23	1:B:132:LEU:CD2	2.49	0.41
2:C:137:VAL:CG2	2:C:406:HIS:HE1	2.33	0.41
2:C:167:LYS:O	2:C:168:ARG:HB2	2.19	0.41
2:C:224:GLU:O	2:C:227:LEU:N	2.46	0.41
2:C:355:VAL:CG1	2:C:356:ARG:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:521:PRO:O	2:C:522:VAL:C	2.58	0.41
2:C:560:MET:O	2:C:564:MET:HB2	2.20	0.41
2:C:575:GLN:C	2:C:667:ALA:HB1	2.39	0.41
2:C:614:ARG:CZ	2:C:623:HIS:HE1	2.33	0.41
2:C:704:HIS:HD1	2:C:831:ARG:HD2	1.84	0.41
2:C:769:PRO:C	2:C:771:GLU:N	2.74	0.41
2:C:839:LEU:HD13	2:C:839:LEU:HA	1.76	0.41
2:C:924:LEU:HD23	2:C:924:LEU:H	1.75	0.41
2:C:1020:PRO:O	2:C:1021:LEU:CG	2.68	0.41
3:D:12:LEU:HD12	3:D:12:LEU:HA	1.79	0.41
3:D:471:GLU:O	3:D:471:GLU:HG3	2.20	0.41
3:D:496:LEU:CD1	3:D:500:ARG:HG2	2.48	0.41
3:D:566:ILE:O	3:D:570:GLU:HG3	2.20	0.41
3:D:620:GLY:O	3:D:621:LYS:HG3	2.20	0.41
3:D:645:PRO:O	3:D:646:LYS:C	2.56	0.41
3:D:887:GLY:C	3:D:889:ALA:H	2.23	0.41
3:D:962:ARG:O	3:D:966:GLU:HB2	2.19	0.41
3:D:1094:LEU:HB3	3:D:1095:THR:H	1.77	0.41
3:D:1110:ALA:O	3:D:1111:ASP:C	2.58	0.41
3:D:1436:SER:OG	3:D:1464:GLU:HG2	2.20	0.41
4:E:26:ARG:HA	4:E:26:ARG:HD2	1.79	0.41
1:A:79:ILE:HG23	1:A:167:VAL:CG2	2.50	0.41
2:C:83:CYS:HB3	2:C:88:LEU:O	2.21	0.41
2:C:334:ARG:HA	2:C:338:GLU:OE2	2.20	0.41
2:C:542:LEU:HA	2:C:545:ASN:HD22	1.85	0.41
2:C:623:HIS:HA	2:C:624:PRO:HD3	1.89	0.41
2:C:1001:VAL:O	2:C:1002:GLU:C	2.58	0.41
2:C:1023:GLY:O	2:C:1024:LYS:HG3	2.21	0.41
3:D:97:THR:O	3:D:571:LYS:CE	2.68	0.41
3:D:472:LYS:C	3:D:474:GLU:N	2.71	0.41
3:D:597:GLU:HG2	3:D:598:ARG:N	2.36	0.41
3:D:876:SER:H	3:D:879:ARG:CD	2.33	0.41
3:D:963:TYR:CE2	3:D:1002:LYS:HB3	2.55	0.41
3:D:1331:ASP:O	3:D:1334:GLN:HB2	2.20	0.41
1:A:200:TRP:O	1:A:201:THR:O	2.38	0.41
2:C:30:LEU:O	2:C:31:GLN:C	2.58	0.41
2:C:333:ILE:O	2:C:333:ILE:HG22	2.19	0.41
2:C:442:GLU:HG3	2:C:442:GLU:O	2.20	0.41
2:C:511:ASP:OD1	2:C:516:ARG:HB2	2.20	0.41
2:C:717:LEU:O	2:C:761:PHE:CB	2.68	0.41
2:C:758:ARG:HD3	2:C:788:THR:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:947:ALA:O	2:C:950:LEU:N	2.53	0.41
2:C:1034:GLU:HG3	2:C:1035:MET:H	1.86	0.41
2:C:1112:PHE:C	2:C:1114:GLY:N	2.73	0.41
3:D:23:TYR:O	3:D:24:GLY:C	2.58	0.41
3:D:805:ALA:HB1	3:D:809:PRO:HD2	2.03	0.41
3:D:965:GLU:O	3:D:968:ASP:CB	2.67	0.41
3:D:999:THR:O	3:D:1002:LYS:N	2.53	0.41
3:D:1065:LEU:HD12	3:D:1067:VAL:CG2	2.50	0.41
3:D:1067:VAL:C	3:D:1069:GLU:N	2.74	0.41
3:D:1192:LEU:CD1	3:D:1345:GLU:HB3	2.49	0.41
3:D:1348:LEU:HD12	3:D:1348:LEU:HA	1.71	0.41
3:D:1403:LEU:CG	3:D:1415:VAL:HB	2.46	0.41
3:D:1431:THR:HG23	3:D:1432:LYS:HG2	2.03	0.41
1:A:71:VAL:HA	1:A:132:LEU:HA	2.01	0.41
1:B:110:ARG:C	1:B:112:VAL:H	2.23	0.41
1:B:122:ILE:HD12	1:B:122:ILE:N	2.35	0.41
2:C:115:LEU:HD11	2:C:378:LEU:HD22	2.01	0.41
2:C:198:ARG:HG2	2:C:228:ALA:CA	2.37	0.41
2:C:218:VAL:C	2:C:220:GLY:N	2.73	0.41
2:C:368:THR:O	2:C:371:LYS:HB2	2.21	0.41
2:C:575:GLN:HA	2:C:662:GLU:CD	2.40	0.41
2:C:588:VAL:HG21	2:C:666:LEU:HD13	2.02	0.41
2:C:657:ASP:HB3	2:C:658:GLY:H	1.46	0.41
2:C:679:PHE:C	2:C:681:GLY:N	2.73	0.41
2:C:773:LEU:O	2:C:777:ILE:HG13	2.20	0.41
2:C:806:LEU:O	2:C:821:GLU:HA	2.20	0.41
2:C:889:HIS:O	2:C:891:GLY:N	2.53	0.41
2:C:918:LEU:HD13	2:C:968:ASP:CA	2.51	0.41
2:C:1014:SER:O	2:C:1018:GLN:HA	2.20	0.41
2:C:1085:PHE:CE1	3:D:1468:LEU:HD22	2.55	0.41
3:D:99:ALA:HB1	3:D:512:MET:O	2.20	0.41
3:D:126:VAL:N	3:D:456:MET:CE	2.83	0.41
3:D:710:ARG:NH2	3:D:1219:GLU:OE2	2.51	0.41
3:D:767:HIS:O	3:D:769:LEU:N	2.49	0.41
3:D:794:GLN:O	3:D:795:VAL:CB	2.65	0.41
3:D:795:VAL:CG2	3:D:904:VAL:HG11	2.45	0.41
3:D:809:PRO:O	3:D:811:GLU:N	2.53	0.41
3:D:868:TYR:HA	3:D:871:ARG:O	2.20	0.41
3:D:891:GLY:H	3:D:926:LYS:NZ	2.17	0.41
3:D:988:ARG:O	3:D:989:TYR:C	2.59	0.41
3:D:1101:VAL:HG22	3:D:1424:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1238:MET:HE3	3:D:1257:PRO:HG3	2.02	0.41
3:D:1282:ARG:HG2	3:D:1293:PHE:CB	2.44	0.41
3:D:1394:VAL:HG11	3:D:1398:TRP:HE3	1.84	0.41
1:B:128:HIS:HE1	1:B:131:THR:N	2.18	0.41
2:C:29:ALA:O	2:C:44:ILE:HD13	2.20	0.41
2:C:498:GLN:CB	2:C:503:LEU:H	2.34	0.41
2:C:648:ARG:NH1	2:C:653:ASP:HB3	2.35	0.41
3:D:469:ASP:C	3:D:471:GLU:N	2.72	0.41
3:D:904:VAL:HG12	3:D:906:GLN:NE2	2.36	0.41
3:D:956:ILE:HD11	3:D:1062:ARG:HB3	2.01	0.41
3:D:1113:GLY:O	3:D:1114:THR:O	2.38	0.41
3:D:1456:LYS:O	3:D:1457:ASP:C	2.58	0.41
4:E:47:LYS:CD	4:E:54:LEU:HD23	2.48	0.41
1:B:174:VAL:CA	1:B:201:THR:HG22	2.48	0.41
2:C:147:TYR:O	2:C:148:PHE:CB	2.66	0.41
2:C:162:ILE:HG13	2:C:171:TRP:HZ3	1.77	0.41
2:C:202:TYR:O	2:C:203:ASP:OD2	2.39	0.41
2:C:216:ASP:O	2:C:218:VAL:N	2.54	0.41
2:C:454:SER:O	2:C:455:LEU:HB2	2.21	0.41
2:C:460:ARG:N	2:C:468:ARG:O	2.54	0.41
2:C:514:VAL:C	2:C:516:ARG:H	2.23	0.41
2:C:550:LEU:HD23	2:C:905:VAL:CG1	2.51	0.41
2:C:777:ILE:C	2:C:779:GLY:H	2.23	0.41
2:C:1051:GLU:OE2	3:D:752:SER:OG	2.34	0.41
3:D:497:GLU:O	3:D:501:ALA:HB2	2.21	0.41
3:D:521:PRO:CD	3:D:522:PRO:HD3	2.51	0.41
3:D:575:GLN:O	3:D:578:VAL:N	2.53	0.41
3:D:590:PRO:HA	3:D:600:LEU:CG	2.50	0.41
3:D:626:SER:CB	3:D:748:HIS:HA	2.50	0.41
3:D:697:GLY:O	3:D:760:ARG:NH1	2.53	0.41
3:D:850:LEU:O	3:D:853:VAL:HB	2.20	0.41
3:D:1079:LYS:C	3:D:1081:GLY:N	2.73	0.41
3:D:1486:VAL:HG21	4:E:25:LYS:CE	2.50	0.41
4:E:38:THR:HG22	4:E:39:VAL:H	1.84	0.41
1:A:14:THR:O	1:A:14:THR:HG22	2.21	0.41
1:B:205:VAL:HG13	1:B:209:GLU:OE1	2.20	0.41
2:C:80:GLN:OE1	2:C:122:THR:HG23	2.21	0.41
2:C:471:TYR:HB3	2:C:534:VAL:HG21	2.03	0.41
2:C:614:ARG:NH1	2:C:623:HIS:HE1	2.19	0.41
2:C:892:LEU:HA	2:C:895:TYR:HB2	2.03	0.41
2:C:943:VAL:O	2:C:946:ARG:HB3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:959:PRO:HA	2:C:962:GLN:NE2	2.36	0.41
2:C:969:LEU:CD1	3:D:952:ASP:H	2.24	0.41
3:D:659:LYS:O	3:D:662:GLU:HB3	2.20	0.41
3:D:1011:PHE:CE2	3:D:1022:VAL:HG11	2.55	0.41
3:D:1141:GLU:OE1	3:D:1168:LEU:HD11	2.20	0.41
3:D:1170:ASP:C	3:D:1172:HIS:H	2.24	0.41
3:D:1321:ALA:C	3:D:1323:GLN:N	2.74	0.41
1:A:43:ILE:O	1:A:46:SER:N	2.54	0.41
1:A:212:ASN:O	1:A:213:GLN:C	2.59	0.41
1:A:220:GLU:HA	1:A:223:ASN:HD22	1.85	0.41
1:B:40:LEU:O	1:B:44:LEU:N	2.42	0.41
1:B:127:LEU:O	1:B:129:ILE:HG12	2.20	0.41
1:B:205:VAL:CG1	1:B:206:THR:N	2.84	0.41
2:C:13:ILE:HG23	2:C:14:PRO:N	2.36	0.41
2:C:34:VAL:HG13	2:C:38:LYS:HG3	2.00	0.41
2:C:137:VAL:HG23	2:C:393:GLN:HG3	2.03	0.41
2:C:149:THR:CG2	2:C:150:PRO:HD2	2.50	0.41
2:C:253:ALA:C	2:C:255:ALA:H	2.24	0.41
2:C:313:LEU:HA	2:C:319:GLY:HA2	2.03	0.41
2:C:352:ALA:C	2:C:355:VAL:HG12	2.41	0.41
2:C:361:MET:O	2:C:362:GLY:O	2.39	0.41
2:C:427:VAL:HG12	2:C:428:ARG:N	2.35	0.41
2:C:432:ARG:CZ	3:D:1048:PRO:O	2.68	0.41
2:C:445:GLU:HB3	2:C:446:GLY:H	1.67	0.41
2:C:598:GLU:HG3	2:C:614:ARG:CZ	2.51	0.41
2:C:611:ILE:HD11	2:C:641:PRO:CB	2.51	0.41
2:C:695:LEU:O	2:C:696:LYS:C	2.59	0.41
2:C:769:PRO:O	2:C:770:GLU:HB2	2.21	0.41
2:C:816:LYS:HD2	2:C:817:PRO:HG2	2.03	0.41
2:C:841:ASN:ND2	2:C:842:ARG:N	2.69	0.41
2:C:976:ASP:C	2:C:978:ARG:H	2.23	0.41
2:C:1052:MET:CE	3:D:748:HIS:HB3	2.50	0.41
3:D:631:ILE:HG21	3:D:745:MET:CE	2.47	0.41
3:D:701:LEU:HG	3:D:763:MET:CE	2.50	0.41
3:D:710:ARG:C	3:D:712:GLY:H	2.24	0.41
3:D:776:GLU:H	3:D:776:GLU:HG2	1.47	0.41
3:D:816:TYR:HA	3:D:832:ARG:HH22	1.86	0.41
3:D:879:ARG:CG	3:D:879:ARG:NH1	2.83	0.41
3:D:930:LEU:HD12	3:D:930:LEU:O	2.21	0.41
3:D:989:TYR:O	3:D:991:GLN:N	2.53	0.41
3:D:1007:VAL:C	3:D:1009:ASN:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1017:PHE:O	3:D:1018:ASN:C	2.58	0.41
3:D:1093:TYR:CE2	3:D:1097:LYS:HD2	2.56	0.41
3:D:1132:LEU:HD13	3:D:1184:ARG:NH1	2.20	0.41
3:D:1137:ARG:N	3:D:1137:ARG:HD2	2.35	0.41
3:D:1151:ARG:N	3:D:1162:GLU:HG3	2.35	0.41
3:D:1302:GLU:C	3:D:1303:TYR:CD1	2.94	0.41
3:D:1382:THR:O	3:D:1383:ASP:C	2.58	0.41
3:D:1455:LYS:O	3:D:1456:LYS:HG2	2.21	0.41
4:E:26:ARG:CZ	4:E:67:GLU:OE2	2.68	0.41
4:E:75:PHE:CD1	4:E:75:PHE:N	2.89	0.41
1:A:198:ARG:HH22	2:C:932:GLU:CD	2.17	0.41
1:B:16:GLN:CB	1:B:20:TYR:HB3	2.51	0.41
2:C:152:PRO:HD2	2:C:158:TYR:HE2	1.84	0.41
2:C:440:PRO:CD	2:C:455:LEU:N	2.80	0.41
2:C:705:ILE:CD1	2:C:705:ILE:N	2.84	0.41
2:C:750:LYS:HG2	2:C:753:ASP:OD1	2.21	0.41
3:D:558:LEU:C	3:D:560:GLN:N	2.73	0.41
3:D:782:SER:HA	3:D:786:ILE:HD11	2.03	0.41
3:D:976:GLN:C	3:D:978:TYR:N	2.71	0.41
3:D:1107:VAL:HG23	3:D:1221:VAL:HG23	2.03	0.41
3:D:1323:GLN:H	3:D:1324:PRO:CD	2.32	0.41
4:E:62:THR:O	4:E:63:TRP:C	2.58	0.41
1:A:88:ARG:O	1:A:89:PHE:HD1	2.05	0.40
1:B:32:PHE:HA	1:B:35:THR:CB	2.51	0.40
1:B:49:PRO:HB3	1:B:146:ARG:HH21	1.84	0.40
2:C:25:SER:O	2:C:28:LYS:HG2	2.20	0.40
2:C:151:ASP:N	2:C:157:ARG:HA	2.32	0.40
2:C:162:ILE:N	2:C:162:ILE:CD1	2.84	0.40
2:C:184:MET:CE	2:C:196:LEU:HD22	2.51	0.40
2:C:566:THR:O	2:C:568:ALA:N	2.53	0.40
2:C:584:GLU:C	2:C:586:ARG:N	2.74	0.40
2:C:653:ASP:O	2:C:653:ASP:CG	2.60	0.40
2:C:692:GLU:O	2:C:695:LEU:N	2.54	0.40
2:C:935:GLY:O	2:C:936:VAL:C	2.60	0.40
2:C:1049:LEU:C	2:C:1051:GLU:H	2.24	0.40
2:C:1052:MET:HE3	2:C:1056:LYS:NZ	2.35	0.40
3:D:675:ARG:CZ	3:D:675:ARG:HB2	2.50	0.40
3:D:829:VAL:O	3:D:830:ALA:CB	2.69	0.40
3:D:1102:ALA:C	3:D:1103:HIS:O	2.59	0.40
3:D:1145:TYR:HA	3:D:1171:VAL:HG21	2.02	0.40
1:A:187:GLY:HA3	1:A:192:LEU:HD11	2.03	0.40

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

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

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

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

All (605) Ramachandran outliers are listed below:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.3.2 Protein sidechains [i](#)

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Res	Type
1	A	19	HIS
1	A	81	ASN
1	A	128	HIS
1	A	156	HIS
1	A	180	GLN
1	A	212	ASN

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

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

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

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

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

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

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

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

All (9) bond length outliers are listed below:

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

All (4) bond angle outliers are listed below:

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

There are no chirality outliers.

All (13) torsion outliers are listed below:

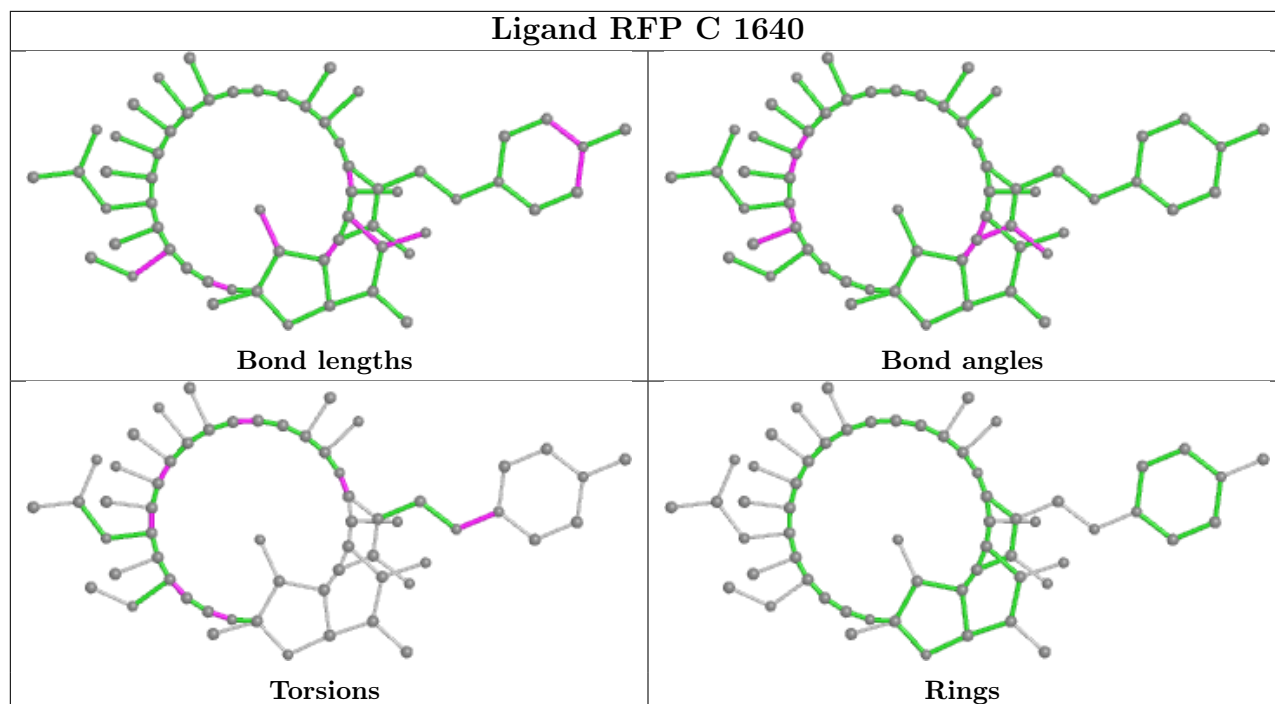
Mol	Chain	Res	Type	Atoms
5	C	1640	RFP	C17-C18-C19-C20
5	C	1640	RFP	C26-C27-C28-C29
5	C	1640	RFP	O6-C27-C28-C29
5	C	1640	RFP	C32-C22-C23-C24
5	C	1640	RFP	C21-C22-C23-C24
5	C	1640	RFP	C32-C22-C23-O9
5	C	1640	RFP	C43-N2-N3-C40
5	C	1640	RFP	C21-C22-C23-O9
5	C	1640	RFP	C43-N2-N3-C41
5	C	1640	RFP	C3-C2-N1-C15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

There are no ring outliers.

1 monomer is involved in 6 short contacts:

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

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



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
3	D	4

All chain breaks are listed below:

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

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates [i](#)

EDS was not executed - this section is therefore empty.

6.4 Ligands [i](#)

EDS was not executed - this section is therefore empty.

6.5 Other polymers [i](#)

EDS was not executed - this section is therefore empty.