



# Full wwPDB X-ray Structure Validation Report ⓘ

May 29, 2020 – 01:25 am BST

PDB ID : 2QQP  
Title : Crystal Structure of Authentic Providence Virus  
Authors : Speir, J.A.; Taylor, D.J.; Johnson, J.E.  
Deposited on : 2007-07-26  
Resolution : 3.80 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](mailto: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.

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

MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.11
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.11

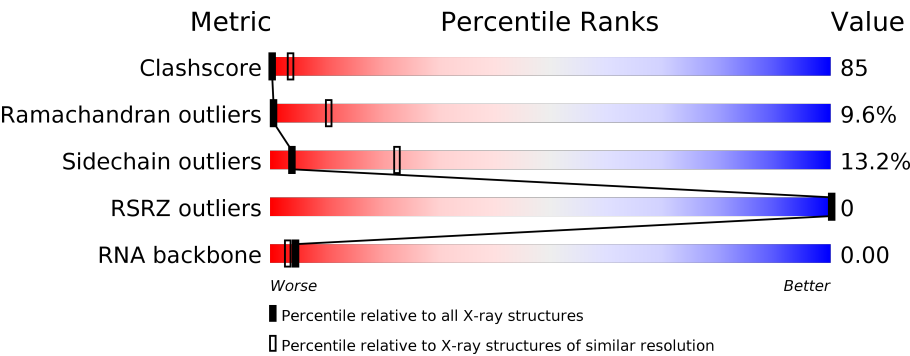
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.80 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	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)
RNA backbone	3102	1036 (4.60-3.00)

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

Mol	Chain	Length	Quality of chain
1	A	556	<div><div></div><div>17%55%14%•13%</div></div>
1	C	556	<div><div></div><div>15%56%15%•13%</div></div>
1	E	556	<div><div></div><div>18%63%12%•7%</div></div>
1	G	556	<div><div></div><div>18%58%15%•7%</div></div>
2	B	75	<div><div></div><div>20%24%8%48%</div></div>
2	D	75	<div><div></div><div>9%36%7%•47%</div></div>

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Mol	Chain	Length	Quality of chain
2	F	75	
2	H	75	
3	R	4	

## 2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 16634 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 Large Capsid protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	484	Total	C	N	O	S	0	0	0
			3714	2359	604	740	11			
1	C	484	Total	C	N	O	S	0	0	0
			3714	2359	604	740	11			
1	E	517	Total	C	N	O	S	0	0	0
			3948	2505	645	785	13			
1	G	518	Total	C	N	O	S	0	0	0
			3957	2510	646	788	13			

- Molecule 2 is a protein called Small capsid protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	B	39	Total	C	N	O	0	0	0
			255	162	44	49			
2	D	40	Total	C	N	O	0	0	0
			263	166	46	51			
2	F	67	Total	C	N	O	0	0	0
			448	282	84	82			
2	H	38	Total	C	N	O	0	0	0
			250	159	43	48			

- Molecule 3 is a RNA chain called RNA (5'-R(\*UP\*UP\*UP\*U)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	R	4	Total	C	N	O	P	0	0	0
			77	36	8	30	3			

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	G	1	Total	Ca	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total 1	Ca 1	0	0

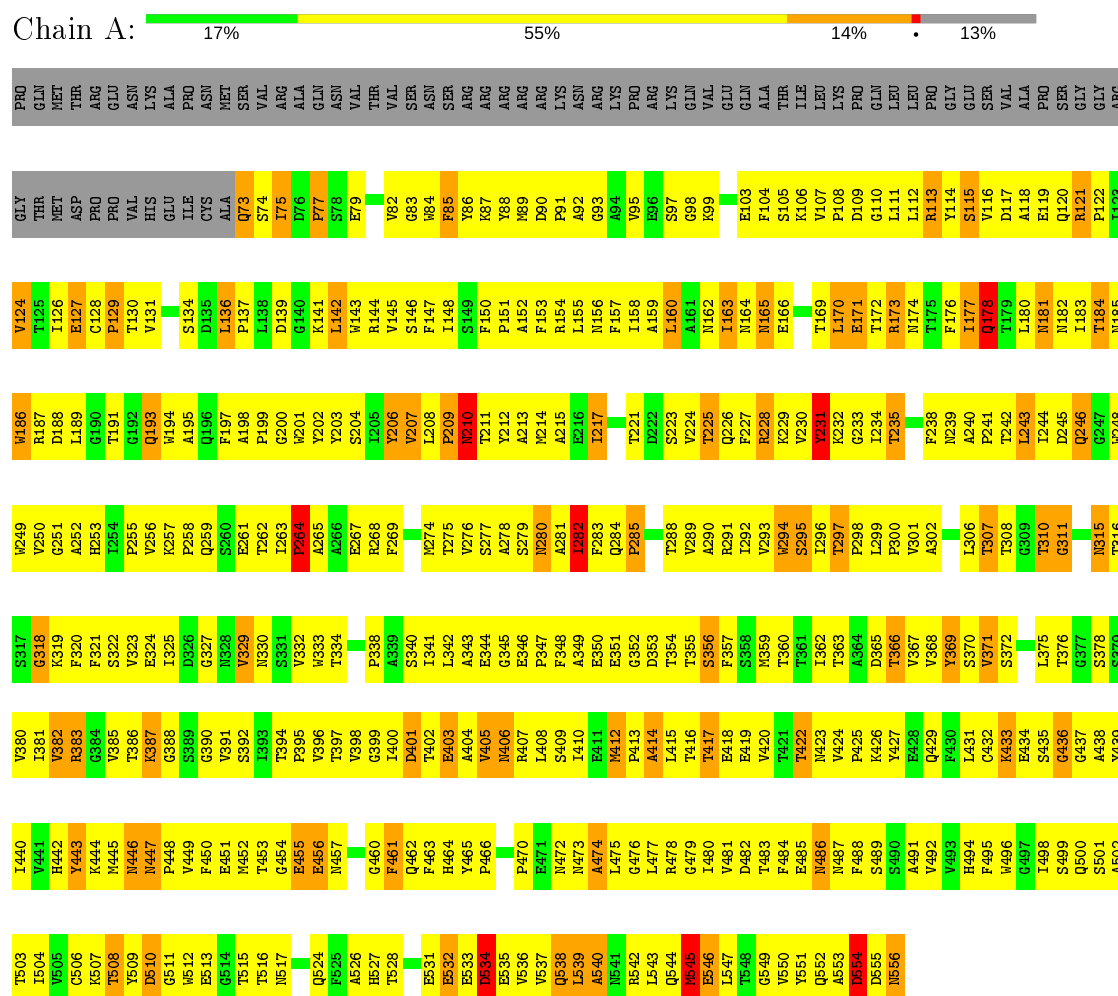
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	1	Total 1	O 1	0	0
5	C	2	Total 2	O 2	0	0
5	E	2	Total 2	O 2	0	0
5	G	1	Total 1	O 1	0	0

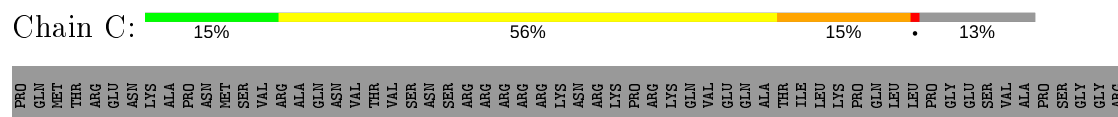
### 3 Residue-property plots

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

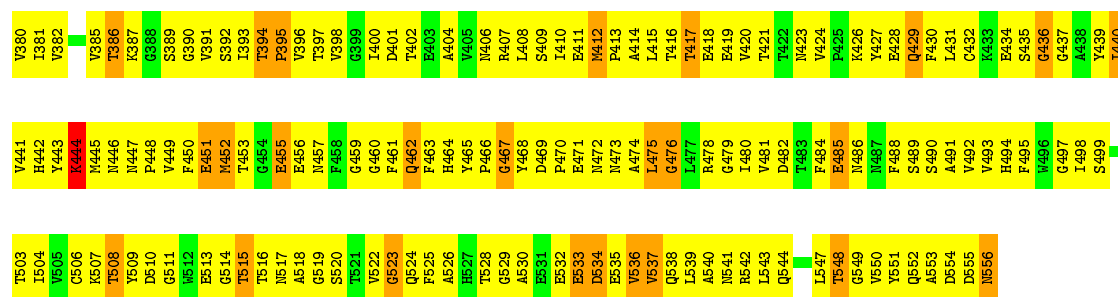
#### • Molecule 1: Large Capsid protein



#### • Molecule 1: Large Capsid protein

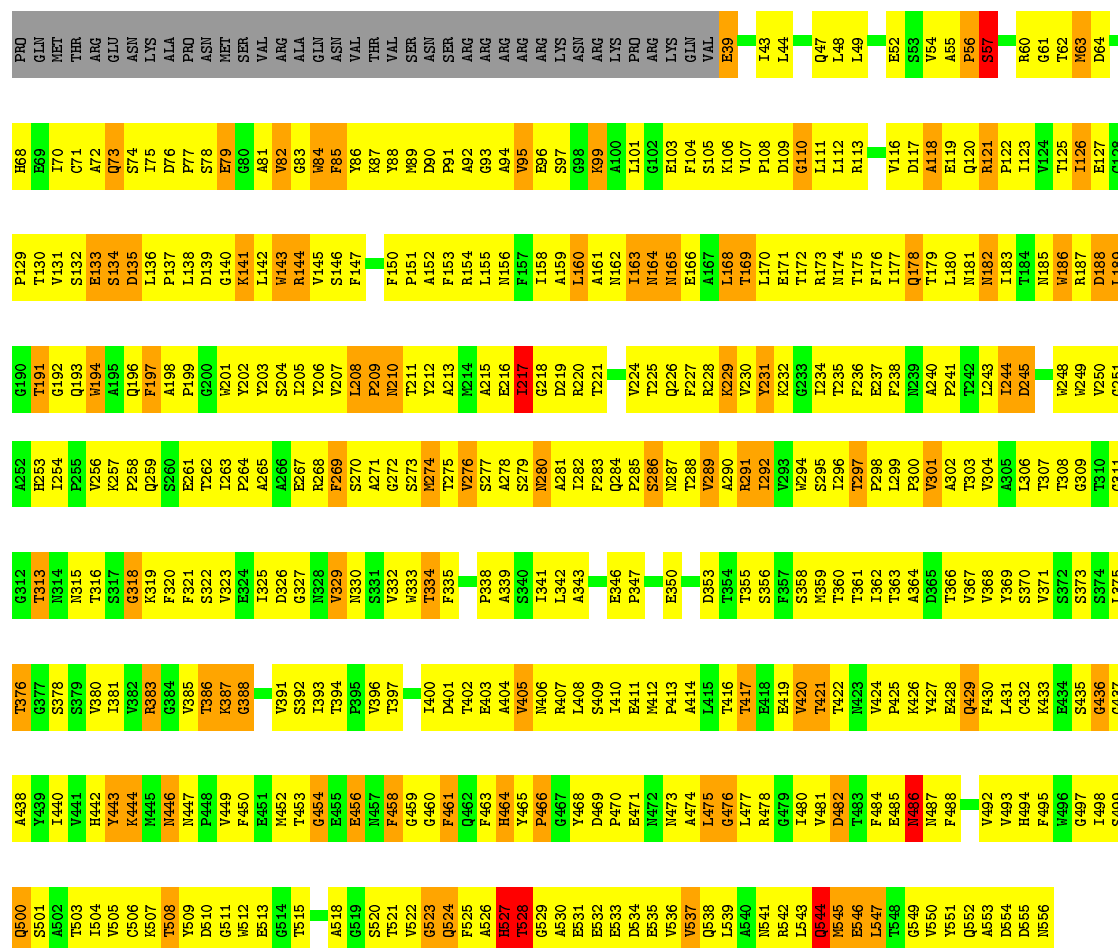


L306	L307	L308	L309	L310	L311	L312	L313	L314	L315	L316	L317	L318	L319	L320	L321	L322	L323	L324	L325	L326	L327	L328	L329	L330	L331	L332	L333	L334	L335	L336	L337	L338	L339	L340	L341	L342	L343	L344	L345	L346	L347	L348	L349	L350	L351	L352	L353	L354	L355	L356	L357	L358	L359	L360	L361	L362	L363	L364	L365	L366	L367	L368	L369	L370	L371	L372	L373	L374	L375	L376	L377	L378	L379	L380	L381	L382	L383	L384	L385	L386	L387	L388	L389	L390	L391	L392	L393	L394	L395	L396	L397	L398	L399	L400	L401	L402	L403	L404	L405	L406	L407	L408	L409	L410	L411	L412	L413	L414	L415	L416	L417	L418	L419	L420	L421	L422	L423	L424	L425	L426	L427	L428	L429	L430	L431	L432	L433	L434	L435	L436	L437	L438	L439	L440	L441	L442	L443	L444	L445	L446	L447	L448	L449	L450	L451	L452	L453	L454	L455	L456	L457	L458	L459	L460	L461	L462	L463	L464	L465	L466	L467	L468	L469	L470	L471	L472	L473	L474	L475	L476	L477	L478	L479	L480	L481	L482	L483	L484	L485	L486	L487	L488	L489	L490	L491	L492	L493	L494	L495	L496	L497	L498	L499	L500	L501	L502	L503	L504	L505	L506	L507	L508	L509	L510	L511	L512	L513	L514	L515	L516	L517	L518	L519	L520	L521	L522	L523	L524	L525	L526	L527	L528	L529	L530	L531	L532	L533	L534	L535	L536	L537	L538	L539	L540	L541	L542	L543	L544	L545	L546	L547	L548	L549	L550	L551	L552	L553	L554	L555	L556	L557	L558	L559	L560	L561	L562	L563	L564	L565	L566	L567	L568	L569	L570	L571	L572	L573	L574	L575	L576	L577	L578	L579	L580	L581	L582	L583	L584	L585	L586	L587	L588	L589	L590	L591	L592	L593	L594	L595	L596	L597	L598	L599	L600	L601	L602	L603	L604	L605	L606	L607	L608	L609	L610	L611	L612	L613	L614	L615	L616	L617	L618	L619	L620	L621	L622	L623	L624	L625	L626	L627	L628	L629	L630	L631	L632	L633	L634	L635	L636	L637	L638	L639	L640	L641	L642	L643	L644	L645	L646	L647	L648	L649	L650	L651	L652	L653	L654	L655	L656	L657	L658	L659	L660	L661	L662	L663	L664	L665	L666	L667	L668	L669	L670	L671	L672	L673	L674	L675	L676	L677	L678	L679	L680	L681	L682	L683	L684	L685	L686	L687	L688	L689	L690	L691	L692	L693	L694	L695	L696	L697	L698	L699	L700	L701	L702	L703	L704	L705	L706	L707	L708	L709	L710	L711	L712	L713	L714	L715	L716	L717	L718	L719	L720	L721	L722	L723	L724	L725	L726	L727	L728	L729	L730	L731	L732	L733	L734	L735	L736	L737	L738	L739	L740	L741	L742	L743	L744	L745	L746	L747	L748	L749	L750	L751	L752	L753	L754	L755	L756	L757	L758	L759	L760	L761	L762	L763	L764	L765	L766	L767	L768	L769	L770	L771	L772	L773	L774	L775	L776	L777	L778	L779	L780	L781	L782	L783	L784	L785	L786	L787	L788	L789	L790	L791	L792	L793	L794	L795	L796	L797	L798	L799	L800	L801	L802	L803	L804	L805	L806	L807	L808	L809	L810	L811	L812	L813	L814	L815	L816	L817	L818	L819	L820	L821	L822	L823	L824	L825	L826	L827	L828	L829	L830	L831	L832	L833	L834	L835	L836	L837	L838	L839	L840	L841	L842	L843	L844	L845	L846	L847	L848	L849	L850	L851	L852	L853	L854	L855	L856	L857	L858	L859	L860	L861	L862	L863	L864	L865	L866	L867	L868	L869	L870	L871	L872	L873	L874	L875	L876	L877	L878	L879	L880	L881	L882	L883	L884	L885	L886	L887	L888	L889	L890	L891	L892	L893	L894	L895	L896	L897	L898	L899	L900	L901	L902	L903	L904	L905	L906	L907	L908	L909	L910	L911	L912	L913	L914	L915	L916	L917	L918	L919	L920	L921	L922	L923	L924	L925	L926	L927	L928	L929	L930	L931	L932	L933	L934	L935	L936	L937	L938	L939	L940	L941	L942	L943	L944	L945	L946	L947	L948	L949	L950	L951	L952	L953	L954	L955	L956	L957	L958	L959	L960	L961	L962	L963	L964	L965	L966	L967	L968	L969	L970	L971	L972	L973	L974	L975	L976	L977	L978	L979	L980	L981	L982	L983	L984	L985	L986	L987	L988	L989	L990	L991	L992	L993	L994	L995	L996	L997	L998	L999	L1000	L1001	L1002	L1003	L1004	L1005	L1006	L1007	L1008	L1009	L1010	L1011	L1012	L1013	L1014	L1015	L1016	L1017	L1018	L1019	L1020	L1021	L1022	L1023	L1024	L1025	L1026	L1027	L1028	L1029	L1030	L1031	L1032	L1033	L1034	L1035	L1036	L1037	L1038	L1039	L1040	L1041	L1042	L1043	L1044	L1045	L1046	L1047	L1048	L1049	L1050	L1051	L1052	L1053	L1054	L1055	L1056	L1057	L1058	L1059	L1060	L1061	L1062	L1063	L1064	L1065	L1066	L1067	L1068	L1069	L1070	L1071	L1072	L1073	L1074	L1075	L1076	L1077	L1078	L1079	L1080	L1081	L1082	L1083	L1084	L1085	L1086	L1087	L1088	L1089	L1090	L1091	L1092	L1093	L1094	L1095	L1096	L1097	L1098	L1099	L1100	L1101	L1102	L1103	L1104	L1105	L1106	L1107	L1108	L1109	L1110	L1111	L1112	L1113	L1114	L1115	L1116	L1117	L1118	L1119	L1120	L1121	L1122	L1123	L1124	L1125	L1126	L1127	L1128	L1129	L1130	L1131	L1132	L1133	L1134	L1135	L1136	L1137	L1138	L1139	L1140	L1141	L1142	L1143	L1144	L1145	L1146	L1147	L1148	L1149	L1150	L1151	L1152	L1153	L1154	L1155	L1156	L1157	L1158	L1159	L1160	L1161	L1162	L1163	L1164	L1165	L1166	L1167	L1168	L1169	L1170	L1171	L1172	L1173	L1174	L1175	L1176	L1177	L1178	L1179	L1180	L1181	L1182	L1183	L1184	L1185	L1186	L1187	L1188	L1189	L1190	L1191	L1192	L1193	L1194	L1195	L1196	L1197	L1198	L1199	L1200	L1201	L1202	L1203	L1204	L1205	L1206	L1207	L1208	L1209	L1210	L1211	L1212	L1213	L1214	L1215	L1216	L1217	L1218	L1219	L1220	L1221	L1222	L1223	L1224	L1225	L1226	L1227	L1228	L1229	L1230	L1231	L1232	L1233	L1234	L1235	L1236	L1237	L1238	L1239	L1240	L1241	L1242	L1243	L1244	L1245	L1246	L1247	L1248	L1249	L1250	L1251	L1252	L1253	L1254	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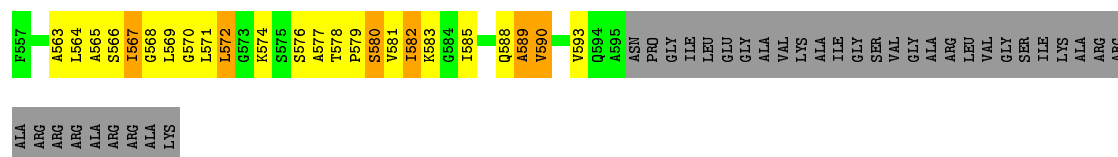
### • Molecule 1: Large Capsid protein

Chain G: 18% 58% 15% 7%



### • Molecule 2: Small capsid protein

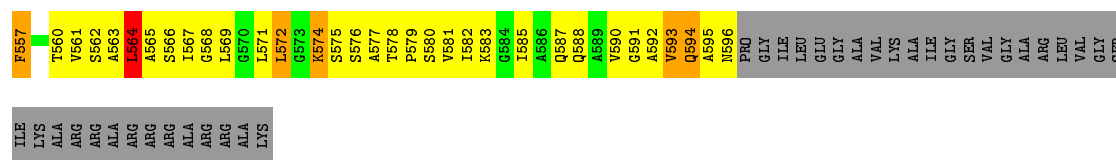
Chain B: 20% 24% 8% 48%





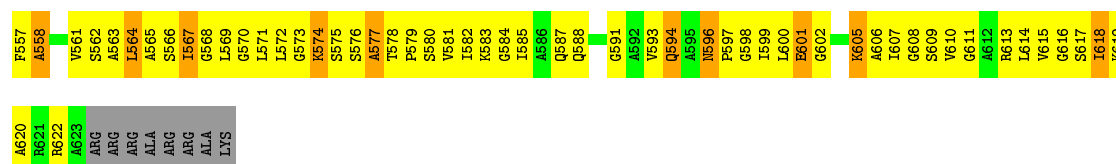
- Molecule 2: Small capsid protein

Chain D: 



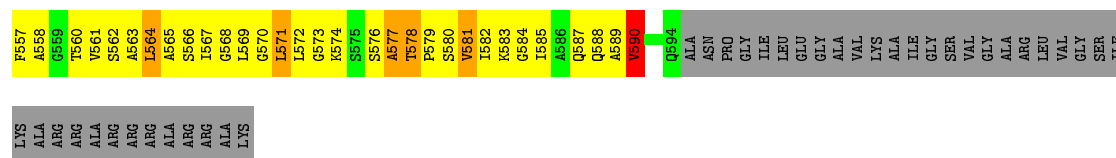
- Molecule 2: Small capsid protein

Chain F: 



- Molecule 2: Small capsid protein

Chain H: 



- Molecule 3: RNA (5'-R(\*UP\*UP\*UP\*U)-3')

Chain R: 



## 4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	659.79Å 434.07Å 415.85Å 90.00° 126.13° 90.00°	Depositor
Resolution (Å)	49.42 – 3.80 50.01 – 3.80	Depositor EDS
% Data completeness (in resolution range)	28.6 (49.42-3.80) 28.6 (50.01-3.80)	Depositor EDS
$R_{merge}$	0.16	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.17 (at 3.77Å)	Xtriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.285 , (Not available) 0.279 , (Not available)	Depositor DCC
$R_{free}$ test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	35.1	Xtriage
Anisotropy	0.086	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.30 , -9.3	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.41$ , $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	0.059 for -h-2*k,l	Xtriage
$F_o, F_c$ correlation	0.75	EDS
Total number of atoms	16634	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	20.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.81% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality

### 5.1 Standard geometry

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

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	0.54	0/3807	0.78	0/5203
1	C	0.53	0/3807	0.78	0/5203
1	E	0.55	0/4047	0.78	0/5532
1	G	0.52	0/4056	0.79	0/5544
2	B	0.60	0/256	0.72	0/346
2	D	0.55	0/264	0.83	0/357
2	F	0.58	0/450	0.85	0/606
2	H	0.51	0/251	0.74	0/339
3	R	1.57	0/84	0.91	0/128
All	All	0.55	0/17022	0.78	0/23258

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
1	C	0	1
All	All	0	2

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	206	TYR	Sidechain
1	C	206	TYR	Sidechain

## 5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3714	0	3548	661	0
1	C	3714	0	3548	689	0
1	E	3948	0	3786	744	0
1	G	3957	0	3792	703	0
2	B	255	0	275	40	0
2	D	263	0	281	66	0
2	F	448	0	491	90	0
2	H	250	0	270	47	0
3	R	77	0	42	4	0
4	A	1	0	0	0	0
4	G	1	0	0	0	0
5	A	1	0	0	0	0
5	C	2	0	0	0	0
5	E	2	0	0	0	0
5	G	1	0	0	0	0
All	All	16634	0	16033	2780	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 85.

All (2780) 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:C:475:LEU:HD11	1:E:267:GLU:CG	1.36	1.52
1:C:297:THR:HG23	1:C:476:GLY:CA	1.55	1.35
1:C:120:GLN:NE2	1:C:208:LEU:HB3	1.45	1.29
1:E:297:THR:HG22	1:E:298:PRO:CD	1.64	1.27
1:C:475:LEU:HD11	1:E:267:GLU:CB	1.68	1.21
1:E:220:ARG:NH1	1:G:215:ALA:HB1	1.56	1.21
1:C:297:THR:CG2	1:C:476:GLY:HA3	1.70	1.20
1:E:297:THR:CG2	1:E:298:PRO:HD3	1.71	1.20
1:G:416:THR:HB	1:G:419:GLU:HB2	1.23	1.14
1:A:475:LEU:HD22	1:C:267:GLU:HG2	1.28	1.14
1:A:383:ARG:HH11	1:A:383:ARG:HB2	1.04	1.13
1:E:220:ARG:HH11	1:G:215:ALA:CB	1.62	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:198:ALA:HB3	1:E:201:TRP:HB2	1.27	1.11
1:A:234:ILE:HG12	1:A:508:THR:HG23	1.30	1.11
1:C:297:THR:CG2	1:C:476:GLY:CA	2.26	1.10
1:A:383:ARG:NH1	1:A:383:ARG:HB2	1.64	1.10
1:E:220:ARG:HD2	1:G:215:ALA:HB2	1.22	1.09
1:A:549:GLY:HA2	1:C:113:ARG:HH21	1.16	1.09
1:C:475:LEU:CD1	1:E:267:GLU:CG	2.31	1.08
1:A:262:THR:HA	1:A:406:ASN:HB3	1.35	1.08
1:E:255:PRO:HB3	1:E:445:MET:HG2	1.30	1.08
1:G:168:LEU:HD22	1:G:173:ARG:HG3	1.34	1.08
1:C:273:SER:HB3	1:C:475:LEU:HD12	1.28	1.08
1:G:297:THR:CG2	1:G:476:GLY:HA3	1.83	1.08
1:C:475:LEU:CD1	1:E:267:GLU:HB2	1.84	1.07
1:G:297:THR:HG21	1:G:476:GLY:HA3	1.10	1.07
1:G:47:GLN:NE2	1:G:63:MET:HA	1.70	1.06
1:E:416:THR:HB	1:E:419:GLU:HB2	1.08	1.05
1:C:475:LEU:HD11	1:E:267:GLU:HG2	1.32	1.05
1:A:225:THR:HG23	1:A:517:ASN:HB2	1.40	1.03
1:C:105:SER:HB2	1:C:117:ASP:HB2	1.40	1.02
1:A:107:VAL:HG23	1:A:230:VAL:HG22	1.38	1.02
1:A:129:PRO:HG2	1:A:163:ILE:HG23	1.41	1.02
1:A:413:PRO:HA	1:C:517:ASN:OD1	1.59	1.02
1:C:184:THR:HG21	1:C:295:SER:HB2	1.41	1.01
1:C:363:THR:HG23	1:C:365:ASP:H	1.23	1.00
1:C:405:VAL:HG11	1:C:477:LEU:HD13	1.41	1.00
1:C:87:LYS:HD3	1:C:91:PRO:HA	1.39	1.00
1:G:297:THR:HG21	1:G:476:GLY:CA	1.91	0.99
1:A:404:ALA:HB3	1:E:261:GLU:OE2	1.60	0.99
1:C:475:LEU:CD1	1:E:267:GLU:CB	2.40	0.99
1:A:400:ILE:HG12	1:A:401:ASP:H	1.22	0.99
1:A:404:ALA:HB1	1:E:261:GLU:HB3	1.44	0.99
2:F:599:ILE:O	2:F:600:LEU:HG	1.61	0.99
1:C:275:THR:HG23	1:C:478:ARG:HH22	1.25	0.98
1:A:538:GLN:HG2	2:B:582:ILE:HD13	1.43	0.98
1:E:237:GLU:HG3	1:E:507:LYS:HE2	1.42	0.98
1:G:281:ALA:HB3	1:G:284:GLN:HG3	1.39	0.98
1:C:290:ALA:HB2	1:C:387:LYS:HZ1	1.27	0.97
1:C:475:LEU:HD11	1:E:267:GLU:CD	1.83	0.97
2:F:564:LEU:O	2:F:567:ILE:HG23	1.64	0.97
1:C:275:THR:HG23	1:C:478:ARG:NH2	1.79	0.97
1:A:363:THR:HG22	1:A:365:ASP:H	1.30	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:578:THR:HG22	2:H:581:VAL:H	1.27	0.97
1:A:73:GLN:HE22	2:F:578:THR:HG21	1.28	0.96
1:G:198:ALA:HB3	1:G:201:TRP:HB2	1.44	0.96
1:E:385:VAL:HG12	1:E:392:SER:HB3	1.48	0.96
1:C:302:ALA:HB2	1:C:338:PRO:HG3	1.48	0.96
1:A:549:GLY:CA	1:C:113:ARG:HH21	1.79	0.95
1:E:69:GLU:HA	1:E:78:SER:HA	1.47	0.95
1:G:189:LEU:HD23	1:G:189:LEU:H	1.27	0.95
1:E:297:THR:HG23	1:E:476:GLY:HA3	1.45	0.95
1:G:132:SER:C	1:G:134:SER:H	1.69	0.94
1:A:262:THR:HA	1:A:406:ASN:CB	1.96	0.94
1:E:273:SER:H	1:E:297:THR:HB	1.31	0.94
1:C:272:GLY:HA3	1:C:298:PRO:HD3	1.50	0.94
1:G:274:MET:HB3	1:G:296:ILE:HG13	1.49	0.94
1:A:127:GLU:HA	1:A:503:THR:HG22	1.50	0.94
1:E:266:ALA:HB3	1:E:402:THR:HB	1.50	0.94
1:E:253:HIS:CD2	1:E:549:GLY:HA3	2.01	0.94
1:C:246:GLN:HG3	1:G:241:PRO:HB3	1.50	0.93
1:A:531:GLU:HG3	2:F:583:LYS:HE3	1.48	0.93
1:A:255:PRO:O	1:C:225:THR:HG21	1.67	0.93
1:G:544:GLN:O	1:G:547:LEU:HD23	1.66	0.93
1:A:516:THR:HB	1:E:423:ASN:HB3	1.50	0.93
1:A:285:PRO:HB2	1:A:288:THR:HB	1.49	0.93
1:C:120:GLN:NE2	1:C:208:LEU:CB	2.31	0.93
1:G:106:LYS:HG3	1:G:117:ASP:HB3	1.50	0.92
1:A:480:ILE:H	1:A:480:ILE:HD12	1.30	0.92
1:A:276:VAL:HG21	1:A:369:TYR:HE1	1.33	0.92
1:E:416:THR:CB	1:E:419:GLU:HB2	1.99	0.92
1:A:198:ALA:HB3	1:A:201:TRP:HB2	1.52	0.91
2:D:581:VAL:O	2:D:585:ILE:HD12	1.70	0.91
1:G:225:THR:HG22	1:G:226:GLN:HG3	1.52	0.91
1:G:329:VAL:HG22	1:G:362:ILE:HG12	1.53	0.91
1:E:174:ASN:HA	1:E:177:ILE:HD12	1.53	0.91
1:C:234:ILE:HD11	1:C:236:PHE:CZ	2.06	0.90
2:D:581:VAL:HG12	2:D:585:ILE:HD11	1.51	0.90
1:E:309:GLY:HA3	1:E:331:SER:HA	1.52	0.90
1:C:425:PRO:HB2	1:E:62:THR:HG21	1.54	0.90
1:E:163:ILE:HD12	1:E:163:ILE:H	1.37	0.90
1:G:405:VAL:HG21	1:G:477:LEU:HD22	1.53	0.90
1:A:375:LEU:HB3	1:A:378:SER:HB3	1.51	0.90
1:C:396:VAL:HG12	1:C:397:THR:H	1.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:250:VAL:HG22	1:E:429:GLN:HG3	1.54	0.90
1:G:234:ILE:HG12	1:G:508:THR:HB	1.54	0.89
1:A:198:ALA:HB1	1:A:199:PRO:HD2	1.53	0.89
1:E:416:THR:HB	1:E:419:GLU:CB	2.01	0.89
1:A:394:THR:O	1:A:396:VAL:HG23	1.72	0.89
1:C:371:VAL:HG23	1:C:381:ILE:HB	1.53	0.89
1:C:154:ARG:HB3	1:C:211:THR:HG22	1.52	0.89
1:C:293:VAL:HG22	1:C:324:GLU:HG3	1.55	0.89
1:G:248:TRP:HE1	1:G:429:GLN:HG2	1.34	0.89
1:E:220:ARG:HD2	1:G:215:ALA:CB	2.03	0.88
1:A:242:THR:HA	1:A:245:ASP:HB2	1.55	0.88
1:C:103:GLU:HG3	1:C:117:ASP:OD1	1.74	0.88
1:A:446:ASN:HB2	1:A:487:ASN:HA	1.55	0.88
1:C:275:THR:HB	1:C:391:VAL:HG11	1.54	0.88
1:E:309:GLY:CA	1:E:331:SER:HA	2.03	0.88
1:A:385:VAL:HG22	1:A:392:SER:HB2	1.55	0.88
1:C:275:THR:HG21	1:C:478:ARG:NH1	1.88	0.88
1:E:187:ARG:HH12	1:E:215:ALA:HA	1.37	0.88
1:C:405:VAL:CG1	1:C:477:LEU:HD13	2.04	0.88
1:A:380:VAL:HG12	1:A:381:ILE:H	1.36	0.88
1:A:405:VAL:HG11	1:A:477:LEU:HD22	1.53	0.87
1:A:447:ASN:CB	1:C:451:GLU:HG3	2.03	0.87
1:A:297:THR:CG2	1:A:478:ARG:HE	1.86	0.87
1:C:164:ASN:OD1	1:C:166:GLU:HB3	1.74	0.87
1:G:47:GLN:HE22	1:G:63:MET:HA	1.31	0.87
1:C:120:GLN:HE22	1:C:208:LEU:HB3	1.39	0.87
1:G:122:PRO:HG2	1:G:508:THR:HG23	1.57	0.86
1:E:169:THR:HB	1:E:172:THR:OG1	1.75	0.86
1:A:371:VAL:HG22	1:A:381:ILE:HG21	1.56	0.86
1:C:215:ALA:HB3	1:C:218:GLY:HA2	1.54	0.86
1:A:154:ARG:HB3	1:A:211:THR:HG22	1.56	0.86
1:G:411:GLU:HA	1:G:464:HIS:HB3	1.55	0.86
1:E:297:THR:HG22	1:E:298:PRO:HD3	0.90	0.86
2:B:588:GLN:HG3	2:B:593:VAL:HA	1.57	0.86
1:C:457:ASN:O	1:C:457:ASN:ND2	2.07	0.86
1:G:481:VAL:O	1:G:482:ASP:HB2	1.75	0.86
1:E:465:TYR:CG	1:E:466:PRO:HD2	2.11	0.86
1:G:183:ILE:O	1:G:478:ARG:HB2	1.75	0.86
1:E:220:ARG:HH11	1:G:215:ALA:HB1	0.72	0.86
1:E:73:GLN:HB3	2:F:574:LYS:HA	1.57	0.86
1:E:198:ALA:HB1	1:E:199:PRO:HD2	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:278:ALA:HB3	1:G:387:LYS:HA	1.56	0.86
1:A:171:GLU:H	1:A:171:GLU:CD	1.79	0.85
1:C:313:THR:HA	1:C:325:ILE:HG22	1.55	0.85
1:G:207:VAL:CG1	1:G:212:TYR:HB2	2.05	0.85
1:G:362:ILE:HG22	1:G:367:VAL:HG13	1.58	0.85
1:G:127:GLU:HG2	1:G:503:THR:HG21	1.58	0.85
1:E:55:ALA:HB1	1:E:56:PRO:HD2	1.56	0.85
1:E:148:ILE:HG12	1:E:412:MET:HE1	1.56	0.85
1:G:111:LEU:HG	1:G:112:LEU:HD12	1.59	0.85
1:A:395:PRO:HB3	1:C:267:GLU:HB3	1.59	0.85
1:C:297:THR:HG23	1:C:476:GLY:HA3	0.85	0.85
1:A:461:PHE:HE1	1:A:480:ILE:HB	1.40	0.84
1:A:281:ALA:HB2	1:A:291:ARG:HB2	1.59	0.84
1:C:120:GLN:HE21	1:C:208:LEU:HB3	1.40	0.84
1:A:549:GLY:HA2	1:C:113:ARG:NH2	1.93	0.84
1:A:107:VAL:HG11	1:A:450:PHE:HD1	1.40	0.84
1:C:396:VAL:HG12	1:C:397:THR:N	1.90	0.84
1:G:131:VAL:O	1:G:282:ILE:HG23	1.78	0.83
1:G:154:ARG:HG2	1:G:211:THR:HG22	1.60	0.83
1:A:252:ALA:HB2	1:A:427:TYR:HB2	1.60	0.83
1:E:284:GLN:CB	1:E:289:VAL:HG11	2.07	0.83
1:E:457:ASN:HD21	1:E:486:ASN:HB3	1.43	0.83
1:C:332:VAL:HG22	1:C:358:SER:HB2	1.61	0.83
1:G:307:THR:HB	1:G:332:VAL:HG12	1.60	0.83
1:C:421:THR:HG21	1:G:123:ILE:HD12	1.60	0.83
1:C:405:VAL:HG11	1:C:477:LEU:CD1	2.09	0.83
1:A:366:THR:O	1:A:367:VAL:HG23	1.79	0.83
1:A:371:VAL:H	1:A:381:ILE:HG22	1.42	0.83
1:C:475:LEU:CD2	1:E:267:GLU:HB2	2.09	0.82
1:G:207:VAL:HG11	1:G:212:TYR:HB2	1.62	0.82
1:G:241:PRO:CG	1:G:244:ILE:HB	2.09	0.82
1:G:292:ILE:HD11	1:G:325:ILE:HG13	1.61	0.82
1:C:184:THR:HG21	1:C:295:SER:CB	2.09	0.82
1:E:220:ARG:CD	1:G:215:ALA:HB2	2.06	0.82
1:C:273:SER:H	1:C:297:THR:HB	1.44	0.82
1:E:265:ALA:HB2	1:E:404:ALA:HB2	1.61	0.82
1:A:342:LEU:HD22	1:A:347:PRO:HA	1.60	0.82
1:C:363:THR:CG2	1:C:366:THR:H	1.92	0.82
1:C:339:ALA:HB3	1:C:400:ILE:HD11	1.62	0.82
1:E:229:LYS:HB2	1:E:485:GLU:HG2	1.61	0.82
1:G:447:ASN:ND2	1:G:449:VAL:HG12	1.95	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:284:GLN:HB2	1:E:289:VAL:HG11	1.60	0.81
1:G:534:ASP:HA	1:G:537:VAL:HB	1.61	0.81
2:H:578:THR:HG22	2:H:581:VAL:N	1.93	0.81
1:C:545:MET:HE1	1:C:546:GLU:HA	1.61	0.81
2:D:578:THR:HG22	2:D:580:SER:H	1.44	0.81
1:G:408:LEU:HB2	1:G:461:PHE:HB3	1.61	0.81
1:G:248:TRP:HE1	1:G:429:GLN:CG	1.94	0.81
1:E:122:PRO:O	1:E:508:THR:HG23	1.81	0.81
1:C:229:LYS:H	1:C:485:GLU:HG3	1.45	0.81
1:E:274:MET:HE2	1:E:296:ILE:HD11	1.63	0.81
1:E:90:ASP:HB2	2:F:561:VAL:HB	1.62	0.81
1:A:405:VAL:HG11	1:A:477:LEU:CD2	2.10	0.81
1:A:383:ARG:CB	1:A:383:ARG:HH11	1.90	0.80
1:C:87:LYS:CE	1:C:95:VAL:HG23	2.11	0.80
1:C:306:LEU:HD13	1:C:311:GLY:HA2	1.63	0.80
1:G:363:THR:HG22	1:G:364:ALA:H	1.45	0.80
1:A:244:ILE:HD11	1:A:501:SER:HB2	1.64	0.80
1:A:414:ALA:HB2	1:C:517:ASN:O	1.81	0.80
1:E:299:LEU:HD12	1:E:300:PRO:HD2	1.62	0.80
1:G:258:PRO:HB3	1:G:410:ILE:HG12	1.63	0.80
1:C:302:ALA:HB2	1:C:338:PRO:CG	2.12	0.80
1:G:130:THR:HB	1:G:282:ILE:HD13	1.62	0.80
1:E:435:SER:O	1:E:437:GLY:N	2.14	0.80
1:G:447:ASN:HD21	1:G:449:VAL:HG12	1.47	0.80
1:C:475:LEU:CD1	1:E:267:GLU:HG2	2.03	0.79
1:G:444:LYS:HB3	1:G:450:PHE:CE2	2.16	0.79
1:A:249:TRP:O	1:A:429:GLN:HG2	1.82	0.79
1:E:43:ILE:HB	1:E:67:VAL:HB	1.61	0.79
1:A:447:ASN:HB3	1:C:451:GLU:HG3	1.65	0.79
1:G:241:PRO:HG3	1:G:244:ILE:HB	1.64	0.79
1:G:217:ILE:HD13	1:G:217:ILE:O	1.83	0.79
1:A:455:GLU:HG3	1:E:259:GLN:HB2	1.62	0.79
1:A:370:SER:HB2	1:A:381:ILE:O	1.83	0.79
1:E:107:VAL:O	1:E:530:ALA:HB3	1.82	0.79
1:C:435:SER:O	1:C:437:GLY:N	2.14	0.79
1:E:116:VAL:HG21	1:E:522:VAL:CG1	2.13	0.79
1:G:93:GLY:O	1:G:97:SER:HB3	1.82	0.79
1:A:435:SER:O	1:A:437:GLY:N	2.14	0.78
1:A:151:PRO:HB2	1:A:485:GLU:HB3	1.66	0.78
1:A:279:SER:HA	1:A:387:LYS:CG	2.14	0.78
1:C:143:TRP:HE1	1:C:498:ILE:HG22	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:396:VAL:HG12	1:G:397:THR:H	1.45	0.78
1:E:100:ALA:HB3	1:G:63:MET:HE2	1.65	0.78
1:A:259:GLN:HB2	1:C:455:GLU:HG3	1.65	0.78
1:A:279:SER:HA	1:A:387:LYS:HG3	1.64	0.78
1:C:439:TYR:CE2	1:C:556:ASN:HA	2.19	0.78
1:E:107:VAL:HB	1:E:228:ARG:HH11	1.48	0.78
1:A:448:PRO:HD3	1:C:111:LEU:HD22	1.65	0.78
1:C:267:GLU:OE1	1:C:267:GLU:HA	1.83	0.78
1:G:189:LEU:HD23	1:G:189:LEU:N	1.99	0.78
1:C:154:ARG:HG2	1:C:482:ASP:OD1	1.83	0.78
1:E:237:GLU:HG3	1:E:507:LYS:CE	2.13	0.78
1:A:329:VAL:HG23	1:A:362:ILE:HG13	1.65	0.77
1:G:77:PRO:HA	1:G:533:GLU:OE2	1.82	0.77
1:C:398:VAL:HB	1:C:400:ILE:HD13	1.66	0.77
1:E:284:GLN:HB3	1:E:285:PRO:HD2	1.65	0.77
1:E:457:ASN:ND2	1:E:486:ASN:HB3	1.98	0.77
1:A:297:THR:OG1	1:A:298:PRO:HD3	1.85	0.77
1:A:262:THR:CA	1:A:406:ASN:HB3	2.13	0.77
1:E:278:ALA:HB2	1:E:385:VAL:HG21	1.67	0.77
1:A:517:ASN:O	1:E:414:ALA:HB2	1.85	0.77
1:G:168:LEU:HD23	1:G:172:THR:HB	1.65	0.77
1:G:174:ASN:ND2	1:G:468:TYR:HA	1.98	0.77
1:C:542:ARG:O	1:C:546:GLU:HB2	1.84	0.77
1:E:56:PRO:HB2	1:G:554:ASP:HA	1.67	0.77
1:A:453:THR:HG21	1:A:484:PHE:O	1.84	0.77
1:C:168:LEU:HD13	1:C:201:TRP:CZ3	2.19	0.77
1:A:400:ILE:HG12	1:A:401:ASP:N	2.00	0.77
1:C:87:LYS:O	1:C:91:PRO:HD3	1.84	0.77
1:A:341:ILE:O	1:A:342:LEU:HD23	1.84	0.77
1:E:185:ASN:CG	1:E:318:GLY:HA3	2.05	0.77
1:A:444:LYS:HD3	1:A:450:PHE:CD2	2.20	0.76
1:C:297:THR:CG2	1:C:476:GLY:HA2	2.13	0.76
1:A:105:SER:O	1:A:230:VAL:HG21	1.84	0.76
1:C:290:ALA:N	1:C:362:ILE:HD11	1.99	0.76
1:E:173:ARG:O	1:E:176:PHE:HB3	1.84	0.76
1:G:416:THR:HB	1:G:419:GLU:CB	2.09	0.76
1:A:371:VAL:H	1:A:381:ILE:CG2	1.97	0.76
1:C:164:ASN:ND2	1:C:200:GLY:HA3	2.00	0.76
1:E:278:ALA:HA	1:E:292:ILE:HG22	1.66	0.76
1:A:517:ASN:OD1	1:E:413:PRO:HA	1.86	0.76
1:C:143:TRP:NE1	1:C:498:ILE:HG22	2.00	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:418:GLU:HA	1:E:421:THR:HG23	1.65	0.76
1:G:191:THR:HG23	1:G:193:GLN:HG2	1.68	0.76
1:G:248:TRP:HD1	1:G:431:LEU:HD23	1.50	0.76
1:A:113:ARG:HG3	1:E:443:TYR:CE2	2.21	0.76
1:A:189:LEU:HD12	1:A:189:LEU:N	2.00	0.76
1:A:371:VAL:HG22	1:A:381:ILE:CG2	2.14	0.76
1:C:154:ARG:HB3	1:C:211:THR:CG2	2.16	0.76
1:A:103:GLU:HG3	1:A:117:ASP:OD2	1.85	0.76
1:A:297:THR:HG23	1:A:478:ARG:HE	1.50	0.76
1:A:485:GLU:HG3	1:A:488:PHE:H	1.50	0.76
1:E:418:GLU:HA	1:E:421:THR:CG2	2.16	0.76
1:C:304:VAL:HG12	1:C:305:ALA:H	1.50	0.76
1:A:461:PHE:CE1	1:A:480:ILE:HB	2.21	0.76
1:G:188:ASP:OD1	1:G:316:THR:HG22	1.86	0.76
1:C:458:PHE:HB2	1:C:483:THR:HG23	1.68	0.75
1:G:412:MET:SD	1:G:413:PRO:HD2	2.27	0.75
1:C:105:SER:CB	1:C:117:ASP:HB2	2.16	0.75
1:E:228:ARG:HB3	1:E:452:MET:CE	2.16	0.75
1:G:306:LEU:HD22	1:G:311:GLY:HA2	1.67	0.75
1:G:329:VAL:HG13	1:G:362:ILE:HG23	1.68	0.75
1:C:297:THR:HB	1:C:298:PRO:HD3	1.68	0.75
1:C:407:ARG:HH21	1:C:478:ARG:HB2	1.52	0.75
1:E:412:MET:SD	1:E:413:PRO:HD2	2.27	0.75
1:G:248:TRP:CD1	1:G:431:LEU:HD23	2.20	0.75
1:A:239:ASN:HB3	1:A:503:THR:O	1.86	0.75
1:C:407:ARG:HD2	1:C:462:GLN:CB	2.16	0.75
1:A:178:GLN:NE2	1:A:390:GLY:HA2	2.02	0.75
1:G:142:LEU:HA	1:G:500:GLN:H	1.52	0.75
1:G:56:PRO:HG2	1:G:57:SER:H	1.52	0.75
1:A:423:ASN:HA	1:C:523:GLY:HA3	1.69	0.75
1:A:276:VAL:HG21	1:A:369:TYR:CE1	2.19	0.74
1:A:447:ASN:HB2	1:C:451:GLU:HA	1.68	0.74
1:A:475:LEU:HD22	1:C:267:GLU:CG	2.15	0.74
1:C:304:VAL:HG12	1:C:305:ALA:N	2.00	0.74
1:G:142:LEU:HD12	1:G:497:GLY:HA2	1.67	0.74
1:G:132:SER:C	1:G:134:SER:N	2.33	0.74
1:E:210:ASN:ND2	1:G:524:GLN:HG3	2.01	0.74
1:C:87:LYS:C	1:C:89:MET:H	1.88	0.74
1:G:199:PRO:HD3	1:G:388:GLY:HA3	1.69	0.74
1:G:92:ALA:O	1:G:95:VAL:HG13	1.87	0.74
1:A:108:PRO:HB2	1:A:533:GLU:HB2	1.67	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:73:GLN:OE1	2:F:574:LYS:HB2	1.87	0.74
1:G:465:TYR:CG	1:G:466:PRO:HD2	2.22	0.74
1:G:460:GLY:HA2	1:G:481:VAL:HA	1.67	0.74
2:D:583:LYS:O	2:D:587:GLN:HG3	1.86	0.74
1:C:235:THR:HG22	1:C:439:TYR:CD1	2.22	0.74
1:C:180:LEU:HA	1:C:183:ILE:HD11	1.70	0.74
1:E:469:ASP:CG	1:E:471:GLU:HG2	2.08	0.74
1:A:263:ILE:HB	1:A:405:VAL:O	1.87	0.74
1:C:375:LEU:HB3	1:C:378:SER:HB3	1.70	0.74
1:E:107:VAL:HB	1:E:228:ARG:NH1	2.03	0.74
1:E:262:THR:HA	1:E:406:ASN:HA	1.68	0.74
1:G:542:ARG:O	1:G:546:GLU:HG2	1.88	0.74
3:R:1:U:H2'	3:R:2:U:C6	2.22	0.74
1:G:122:PRO:HG2	1:G:508:THR:CG2	2.18	0.74
1:G:444:LYS:HB3	1:G:450:PHE:HE2	1.50	0.74
1:G:405:VAL:CG2	1:G:477:LEU:HD22	2.18	0.74
1:A:447:ASN:HB2	1:C:451:GLU:HG3	1.68	0.74
1:E:139:ASP:O	1:E:141:LYS:N	2.19	0.74
1:G:205:ILE:HD13	1:G:480:ILE:HD11	1.70	0.73
1:A:342:LEU:CD2	1:A:347:PRO:HA	2.17	0.73
1:E:79:GLU:HB3	1:E:101:LEU:HD12	1.68	0.73
1:C:475:LEU:CD1	1:E:267:GLU:CD	2.54	0.73
1:E:416:THR:HG22	1:E:418:GLU:H	1.53	0.73
1:G:287:ASN:HA	1:G:364:ALA:HB2	1.68	0.73
1:A:276:VAL:HG13	1:A:294:TRP:HB2	1.70	0.73
1:A:380:VAL:HG12	1:A:381:ILE:N	2.03	0.73
1:A:124:VAL:HG23	1:A:506:CYS:HB2	1.71	0.73
1:E:204:SER:HB3	1:E:206:TYR:OH	1.88	0.73
1:E:533:GLU:OE2	1:E:533:GLU:HA	1.87	0.73
1:G:274:MET:HE1	1:G:294:TRP:HE1	1.53	0.73
1:G:306:LEU:HD21	1:G:309:GLY:O	1.87	0.73
1:G:346:GLU:OE1	1:G:347:PRO:HD2	1.88	0.73
1:A:124:VAL:HG11	1:A:206:TYR:CD2	2.24	0.73
2:D:579:PRO:HG2	1:E:535:GLU:OE1	1.89	0.73
1:E:248:TRP:HA	1:E:431:LEU:HA	1.71	0.73
1:E:314:ASN:O	1:E:324:GLU:HB3	1.89	0.73
1:E:445:MET:HB2	1:E:489:SER:HB2	1.71	0.73
1:E:252:ALA:HB2	1:E:427:TYR:HB2	1.71	0.73
2:F:596:ASN:HB2	2:F:597:PRO:CD	2.19	0.73
1:C:475:LEU:CD1	1:E:267:GLU:OE2	2.37	0.73
1:C:363:THR:HG22	1:C:366:THR:O	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:407:ARG:HD3	1:C:460:GLY:O	1.87	0.73
1:A:480:ILE:N	1:A:480:ILE:HD12	2.02	0.72
1:C:277:SER:HB3	1:C:391:VAL:HG22	1.71	0.72
1:C:400:ILE:HD12	1:C:400:ILE:N	2.04	0.72
1:A:449:VAL:HG12	1:E:448:PRO:HG2	1.71	0.72
1:G:132:SER:O	1:G:134:SER:N	2.21	0.72
1:G:176:PHE:O	1:G:179:THR:HB	1.89	0.72
1:C:181:ASN:O	1:C:407:ARG:NH2	2.22	0.72
1:G:405:VAL:HG21	1:G:477:LEU:CD2	2.19	0.72
1:G:546:GLU:HA	1:G:546:GLU:OE2	1.88	0.72
1:E:252:ALA:HB1	1:E:424:VAL:HG11	1.71	0.72
1:A:229:LYS:HD3	1:A:512:TRP:HB3	1.69	0.72
1:E:359:MET:SD	1:E:362:ILE:HD11	2.28	0.72
1:C:120:GLN:HE22	1:C:208:LEU:CB	2.00	0.72
1:C:107:VAL:HG22	1:C:230:VAL:HG13	1.71	0.72
1:C:428:GLU:HG2	1:C:430:PHE:HE1	1.52	0.72
1:E:348:PHE:CE1	1:E:373:SER:HB2	2.25	0.72
1:C:538:GLN:HG2	2:D:582:ILE:HD12	1.69	0.72
1:A:274:MET:HG3	1:A:296:ILE:HG12	1.72	0.72
1:A:535:GLU:O	1:A:538:GLN:HB3	1.90	0.72
1:A:544:GLN:HB3	1:C:113:ARG:NH1	2.05	0.72
1:A:357:PHE:HE1	1:A:369:TYR:HD1	1.37	0.71
1:G:181:ASN:O	1:G:407:ARG:NH2	2.22	0.71
1:G:230:VAL:HG23	1:G:512:TRP:HA	1.70	0.71
1:C:272:GLY:HA3	1:C:298:PRO:CD	2.19	0.71
1:E:435:SER:C	1:E:437:GLY:H	1.90	0.71
1:C:266:ALA:HB3	1:C:270:SER:HB3	1.71	0.71
1:C:398:VAL:HB	1:C:400:ILE:CD1	2.20	0.71
1:A:495:PHE:HB3	1:A:498:ILE:HD11	1.73	0.71
1:C:275:THR:CG2	1:C:478:ARG:NH1	2.53	0.71
1:E:163:ILE:HD12	1:E:163:ILE:N	2.05	0.71
1:C:245:ASP:HB2	1:C:433:LYS:HG2	1.72	0.71
1:C:407:ARG:NH2	1:C:478:ARG:HB2	2.03	0.71
1:G:375:LEU:HB3	1:G:378:SER:HB3	1.71	0.71
1:A:156:ASN:HB3	1:A:206:TYR:O	1.90	0.71
1:C:168:LEU:HG	1:C:173:ARG:HB3	1.72	0.71
1:C:265:ALA:HB2	1:C:404:ALA:N	2.06	0.71
1:G:75:ILE:HG21	1:G:535:GLU:HG2	1.71	0.71
1:A:144:ARG:HD2	1:A:496:TRP:CD1	2.25	0.71
1:C:154:ARG:O	1:C:207:VAL:HG13	1.90	0.71
1:G:49:LEU:HB2	1:G:52:GLU:HG3	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:275:THR:CG2	1:C:478:ARG:NH2	2.54	0.71
1:C:453:THR:HA	1:C:456:GLU:OE1	1.91	0.71
1:E:250:VAL:HG22	1:E:429:GLN:CG	2.20	0.71
1:G:151:PRO:HB2	1:G:485:GLU:HB3	1.71	0.71
1:A:198:ALA:HA	1:A:388:GLY:O	1.90	0.71
2:B:564:LEU:HD11	2:B:590:VAL:HG22	1.73	0.71
1:C:106:LYS:HE3	1:C:115:SER:OG	1.90	0.71
1:C:229:LYS:H	1:C:485:GLU:CG	2.04	0.71
1:E:444:LYS:O	1:E:444:LYS:HD2	1.91	0.71
1:A:238:PHE:CG	1:A:432:CYS:HB3	2.26	0.70
1:A:88:TYR:CE2	1:A:544:GLN:HG3	2.26	0.70
2:D:581:VAL:HG12	2:D:585:ILE:CD1	2.21	0.70
1:G:363:THR:HG22	1:G:364:ALA:N	2.04	0.70
1:G:105:SER:OG	1:G:117:ASP:HB2	1.92	0.70
2:H:583:LYS:O	2:H:587:GLN:HG3	1.90	0.70
2:B:563:ALA:O	2:B:567:ILE:HG22	1.91	0.70
1:G:166:GLU:HB3	1:G:201:TRP:CZ2	2.25	0.70
1:A:197:PHE:CZ	1:A:201:TRP:HB3	2.26	0.70
1:C:198:ALA:HB3	1:C:201:TRP:HB2	1.73	0.70
1:C:233:GLY:HA2	1:C:441:VAL:HA	1.74	0.70
1:G:75:ILE:CG2	1:G:535:GLU:HG2	2.20	0.70
1:G:543:LEU:O	1:G:546:GLU:HB2	1.91	0.70
1:E:420:VAL:HG23	1:E:421:THR:H	1.54	0.70
1:E:474:ALA:CB	1:E:478:ARG:HD2	2.21	0.70
1:A:207:VAL:HG11	1:A:212:TYR:CD1	2.26	0.70
1:A:363:THR:HB	1:A:366:THR:H	1.57	0.70
1:A:444:LYS:HD3	1:A:450:PHE:HD2	1.56	0.70
1:G:290:ALA:HB2	1:G:387:LYS:HE2	1.72	0.70
2:D:585:ILE:HD12	2:D:585:ILE:H	1.55	0.70
1:G:385:VAL:HG12	1:G:392:SER:HB3	1.74	0.70
1:A:160:LEU:H	1:A:160:LEU:HD12	1.57	0.70
1:A:124:VAL:HG11	1:A:206:TYR:HD2	1.57	0.70
1:C:160:LEU:HD22	1:C:161:ALA:H	1.57	0.70
1:C:139:ASP:CG	1:C:141:LYS:HG3	2.12	0.70
1:E:187:ARG:NH1	1:E:215:ALA:HA	2.06	0.70
1:E:306:LEU:HA	1:E:333:TRP:HA	1.72	0.70
1:A:424:VAL:O	1:A:427:TYR:HD2	1.75	0.69
1:A:419:GLU:HB3	1:A:423:ASN:ND2	2.06	0.69
1:C:371:VAL:CG2	1:C:381:ILE:HB	2.22	0.69
1:E:163:ILE:CD1	1:E:163:ILE:H	2.04	0.69
1:A:73:GLN:NE2	2:F:578:THR:HG21	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:143:TRP:CD1	1:G:500:GLN:HA	2.27	0.69
1:E:313:THR:HB	1:E:333:TRP:HE1	1.56	0.69
1:A:252:ALA:HB1	1:A:424:VAL:HG11	1.73	0.69
1:C:207:VAL:HG11	1:C:212:TYR:HB2	1.73	0.69
1:C:262:THR:HB	1:E:262:THR:HG21	1.73	0.69
1:G:272:GLY:O	1:G:475:LEU:HD12	1.91	0.69
1:G:60:ARG:HG2	1:G:62:THR:O	1.92	0.69
1:G:198:ALA:HB3	1:G:201:TRP:CB	2.22	0.69
2:B:578:THR:HB	2:B:581:VAL:HG23	1.74	0.69
1:E:168:LEU:HD12	1:E:172:THR:HG22	1.75	0.69
1:E:446:ASN:ND2	1:E:486:ASN:O	2.22	0.69
1:G:360:THR:HB	1:G:368:VAL:HG12	1.74	0.69
1:G:263:ILE:HB	1:G:405:VAL:O	1.92	0.69
1:E:107:VAL:HG23	1:E:230:VAL:HG22	1.73	0.69
1:A:297:THR:HG21	1:A:476:GLY:H	1.56	0.69
1:A:329:VAL:CG1	1:A:330:ASN:N	2.56	0.69
1:C:407:ARG:HD2	1:C:462:GLN:HB2	1.75	0.69
1:G:204:SER:HB3	1:G:206:TYR:OH	1.93	0.69
1:G:290:ALA:O	1:G:326:ASP:HA	1.92	0.69
1:A:148:ILE:HG12	1:A:492:VAL:HG12	1.75	0.69
1:E:225:THR:O	1:E:226:GLN:HB3	1.91	0.69
1:G:126:ILE:HD12	1:G:126:ILE:H	1.58	0.69
1:G:228:ARG:HD3	1:G:452:MET:SD	2.33	0.69
1:G:292:ILE:CD1	1:G:325:ILE:HG13	2.22	0.69
1:A:105:SER:HB3	1:A:117:ASP:OD2	1.93	0.69
1:A:186:TRP:CE3	1:A:480:ILE:HG23	2.28	0.69
1:E:130:THR:HG22	1:E:132:SER:N	2.08	0.69
1:E:335:PHE:CE2	1:E:355:THR:HB	2.26	0.69
2:F:606:ALA:O	2:F:610:VAL:HG23	1.93	0.69
1:A:357:PHE:HD1	1:A:371:VAL:HG12	1.58	0.68
1:E:294:TRP:O	1:E:323:VAL:HG23	1.93	0.68
1:C:290:ALA:H	1:C:362:ILE:HD11	1.58	0.68
1:A:375:LEU:CB	1:A:378:SER:HB3	2.22	0.68
1:A:416:THR:O	1:A:420:VAL:HG23	1.93	0.68
2:B:564:LEU:O	2:B:567:ILE:HG23	1.94	0.68
1:C:363:THR:HG23	1:C:364:ALA:N	2.09	0.68
1:G:253:HIS:CD2	1:G:549:GLY:HA3	2.28	0.68
1:C:445:MET:O	1:C:445:MET:HG2	1.92	0.68
1:E:249:TRP:O	1:E:429:GLN:HG2	1.94	0.68
1:A:144:ARG:NH2	1:A:417:THR:OG1	2.26	0.68
1:C:543:LEU:O	1:C:547:LEU:HG	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:297:THR:HG23	1:C:476:GLY:HA2	1.65	0.68
1:E:199:PRO:HG2	1:E:200:GLY:H	1.59	0.68
1:E:207:VAL:HG21	1:E:212:TYR:CD2	2.28	0.68
1:G:142:LEU:HG	1:G:165:ASN:ND2	2.07	0.68
1:G:251:GLY:C	1:G:550:VAL:HG21	2.14	0.68
1:A:297:THR:HG23	1:A:478:ARG:HH21	1.58	0.68
1:C:148:ILE:N	1:C:148:ILE:HD12	2.09	0.68
1:C:127:GLU:HA	1:C:503:THR:HG22	1.76	0.68
2:D:571:LEU:HD12	2:D:585:ILE:HG23	1.75	0.68
1:E:407:ARG:HD2	1:E:460:GLY:HA3	1.76	0.68
1:G:84:TRP:CD1	1:G:230:VAL:HG12	2.29	0.68
1:A:256:VAL:O	1:A:484:PHE:HE2	1.75	0.68
1:C:440:ILE:HG22	1:C:550:VAL:HG12	1.76	0.68
1:G:295:SER:HB3	1:G:322:SER:HA	1.75	0.68
1:A:435:SER:HB2	1:A:552:GLN:HG2	1.76	0.68
1:E:155:LEU:HD12	1:E:156:ASN:H	1.59	0.68
1:E:90:ASP:OD2	1:E:93:GLY:HA3	1.94	0.68
1:A:353:ASP:OD2	1:A:375:LEU:HB2	1.95	0.67
1:A:371:VAL:O	1:A:381:ILE:HG22	1.94	0.67
1:A:544:GLN:HB3	1:C:113:ARG:HH12	1.59	0.67
1:C:207:VAL:HG12	1:C:208:LEU:N	2.09	0.67
1:G:155:LEU:HA	1:G:207:VAL:HG13	1.75	0.67
1:A:276:VAL:HG22	1:A:294:TRP:CD1	2.30	0.67
1:A:136:LEU:HD21	1:A:501:SER:HA	1.76	0.67
1:C:152:ALA:HB3	1:C:155:LEU:HB3	1.76	0.67
1:C:504:ILE:HG22	1:C:506:CYS:SG	2.34	0.67
1:A:277:SER:O	1:A:292:ILE:HB	1.94	0.67
1:A:444:LYS:HD2	1:A:447:ASN:O	1.94	0.67
1:C:206:TYR:N	1:C:206:TYR:CD1	2.59	0.67
1:C:457:ASN:HD22	1:C:457:ASN:C	1.97	0.67
1:E:239:ASN:HB3	1:E:503:THR:O	1.93	0.67
1:E:313:THR:HB	1:E:333:TRP:NE1	2.10	0.67
1:E:444:LYS:HB3	1:E:444:LYS:HZ2	1.59	0.67
1:C:446:ASN:O	1:E:111:LEU:HD21	1.94	0.67
1:E:169:THR:HG22	1:E:170:LEU:N	2.10	0.67
1:C:467:GLY:N	1:E:218:GLY:O	2.27	0.67
1:E:241:PRO:O	1:E:243:LEU:N	2.25	0.67
1:C:297:THR:HG21	1:C:476:GLY:CA	2.22	0.67
1:G:198:ALA:HA	1:G:388:GLY:O	1.95	0.67
1:G:444:LYS:HG2	1:G:447:ASN:O	1.94	0.67
1:C:151:PRO:O	1:C:485:GLU:HB2	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:465:TYR:CD1	1:C:466:PRO:HD2	2.29	0.67
1:E:367:VAL:HB	1:E:385:VAL:CG2	2.25	0.67
1:G:408:LEU:HG	1:G:459:GLY:HA3	1.76	0.67
1:A:539:LEU:CD1	1:A:543:LEU:HG	2.25	0.67
1:C:106:LYS:HA	1:C:513:GLU:OE1	1.94	0.67
1:E:168:LEU:HD12	1:E:172:THR:CG2	2.25	0.67
1:A:253:HIS:ND1	1:A:491:ALA:HB2	2.10	0.67
1:C:250:VAL:HB	1:C:429:GLN:HB3	1.75	0.67
1:G:89:MET:HE1	1:G:544:GLN:N	2.10	0.67
1:G:73:GLN:HG2	1:G:73:GLN:O	1.94	0.67
1:C:106:LYS:HG3	1:C:117:ASP:HB3	1.77	0.66
1:C:234:ILE:HB	1:C:508:THR:HG22	1.77	0.66
1:C:319:LYS:HG3	1:C:320:PHE:CD1	2.30	0.66
1:C:292:ILE:HD11	1:C:325:ILE:HD11	1.77	0.66
1:C:341:ILE:HG12	1:C:398:VAL:HG12	1.77	0.66
1:G:258:PRO:HB2	1:G:408:LEU:HB3	1.77	0.66
1:C:163:ILE:HG13	1:C:164:ASN:H	1.61	0.66
1:A:230:VAL:HG12	1:A:231:TYR:CD2	2.30	0.66
1:A:480:ILE:CD1	1:A:480:ILE:H	2.05	0.66
1:G:369:TYR:CZ	1:G:383:ARG:HB3	2.30	0.66
1:C:176:PHE:CZ	1:C:180:LEU:HD11	2.30	0.66
1:A:448:PRO:HG3	1:C:449:VAL:HG22	1.77	0.66
1:E:308:THR:HB	1:E:332:VAL:HB	1.78	0.66
1:E:474:ALA:HB3	1:E:478:ARG:HD2	1.75	0.66
1:G:332:VAL:HG22	1:G:358:SER:HB2	1.78	0.66
1:A:145:VAL:HG12	1:A:498:ILE:HD12	1.78	0.66
1:A:455:GLU:CG	1:E:259:GLN:HB2	2.25	0.66
2:D:567:ILE:HG23	2:D:568:GLY:N	2.09	0.66
1:E:119:GLU:HA	1:E:510:ASP:O	1.94	0.66
1:G:381:ILE:HG23	1:G:383:ARG:HH21	1.61	0.66
1:C:137:PRO:O	1:C:501:SER:HB3	1.95	0.66
2:D:578:THR:HB	2:D:581:VAL:HG23	1.78	0.66
1:A:404:ALA:CB	1:E:261:GLU:HB3	2.24	0.66
1:E:284:GLN:HB3	1:E:289:VAL:HG11	1.77	0.66
2:F:563:ALA:O	2:F:567:ILE:HG22	1.95	0.66
1:G:173:ARG:O	1:G:176:PHE:HB3	1.95	0.66
1:G:304:VAL:HG11	1:G:323:VAL:HG21	1.76	0.66
2:H:564:LEU:HD23	2:H:564:LEU:H	1.59	0.66
1:A:176:PHE:CZ	1:A:180:LEU:HD11	2.29	0.66
1:C:159:ALA:O	1:C:203:TYR:HA	1.96	0.66
1:C:304:VAL:HG22	1:C:335:PHE:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:126:ILE:HD13	1:E:506:CYS:SG	2.35	0.66
1:C:248:TRP:HB2	1:C:431:LEU:HD23	1.78	0.66
1:C:475:LEU:HG	1:E:267:GLU:OE2	1.94	0.66
1:G:106:LYS:HA	1:G:513:GLU:OE1	1.95	0.66
1:A:170:LEU:O	1:A:173:ARG:HB3	1.96	0.66
2:D:564:LEU:CD1	1:E:50:PRO:HG2	2.26	0.66
1:E:98:GLY:HA2	1:G:63:MET:HE1	1.77	0.66
1:A:243:LEU:HD12	1:A:243:LEU:C	2.17	0.65
1:A:253:HIS:CD2	1:A:549:GLY:HA3	2.31	0.65
1:C:357:PHE:CE1	1:C:369:TYR:HB2	2.31	0.65
1:E:518:ALA:C	1:E:520:SER:H	1.97	0.65
1:C:421:THR:O	1:G:121:ARG:NH1	2.28	0.65
1:E:155:LEU:HD12	1:E:156:ASN:N	2.11	0.65
1:E:396:VAL:CG1	1:E:397:THR:N	2.58	0.65
1:E:297:THR:N	1:E:478:ARG:HH21	1.94	0.65
1:A:325:ILE:C	1:A:325:ILE:HD12	2.16	0.65
1:C:275:THR:HG21	1:C:478:ARG:CZ	2.25	0.65
1:A:255:PRO:HG3	1:C:515:THR:HG21	1.78	0.65
1:C:447:ASN:HB3	1:C:449:VAL:O	1.96	0.65
1:E:256:VAL:HG11	1:E:410:ILE:CG2	2.26	0.65
1:E:173:ARG:HD3	1:E:465:TYR:CD2	2.31	0.65
1:G:84:TRP:O	1:G:85:PHE:C	2.35	0.65
1:A:244:ILE:HD11	1:A:501:SER:CB	2.27	0.65
1:C:292:ILE:CD1	1:C:325:ILE:HG13	2.27	0.65
1:C:400:ILE:HG22	1:C:401:ASP:N	2.12	0.65
1:A:297:THR:CB	1:A:298:PRO:HD3	2.26	0.65
2:D:569:LEU:HD13	2:D:569:LEU:O	1.96	0.65
1:E:465:TYR:CD1	1:E:466:PRO:HD2	2.32	0.65
1:G:291:ARG:HA	1:G:326:ASP:HA	1.79	0.65
1:G:313:THR:HB	1:G:333:TRP:HE1	1.61	0.65
1:C:79:GLU:HB3	1:C:101:LEU:HD13	1.78	0.65
2:D:560:THR:HG22	2:D:564:LEU:HD21	1.79	0.65
1:E:225:THR:HG23	1:E:517:ASN:HB2	1.77	0.65
2:D:594:GLN:OE1	1:E:41:ALA:HB1	1.96	0.65
1:C:120:GLN:HG2	1:C:210:ASN:OD1	1.97	0.65
1:E:210:ASN:O	1:E:213:ALA:N	2.30	0.65
1:G:241:PRO:HG2	1:G:244:ILE:HB	1.78	0.65
1:G:297:THR:HB	1:G:298:PRO:HD3	1.77	0.65
1:A:142:LEU:HB3	1:A:498:ILE:O	1.95	0.65
1:C:238:PHE:CG	1:C:432:CYS:HB3	2.31	0.65
1:C:184:THR:CG2	1:C:295:SER:HB2	2.22	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:475:LEU:HD13	1:E:267:GLU:HB2	1.79	0.65
1:E:297:THR:N	1:E:478:ARG:NH2	2.45	0.65
1:E:48:LEU:HD12	1:E:52:GLU:O	1.97	0.65
1:G:174:ASN:HD22	1:G:468:TYR:HD1	1.44	0.65
1:A:408:LEU:HB2	1:A:461:PHE:HB3	1.78	0.65
1:A:542:ARG:O	1:A:545:MET:HB3	1.96	0.65
1:C:356:SER:OG	1:C:372:SER:HB2	1.97	0.65
1:E:130:THR:HB	1:E:163:ILE:HG12	1.78	0.65
1:G:194:TRP:CE3	1:G:194:TRP:HA	2.32	0.65
1:A:185:ASN:HB2	1:A:188:ASP:OD2	1.97	0.64
1:C:396:VAL:CG1	1:C:397:THR:H	2.08	0.64
1:E:413:PRO:O	1:E:415:LEU:HG	1.97	0.64
2:F:605:LYS:CG	2:F:610:VAL:HG22	2.27	0.64
1:G:474:ALA:HB1	1:G:478:ARG:HD3	1.78	0.64
1:A:114:TYR:O	1:A:115:SER:HB3	1.96	0.64
2:F:597:PRO:O	2:F:599:ILE:N	2.28	0.64
1:G:224:VAL:HG12	1:G:225:THR:N	2.12	0.64
1:A:129:PRO:CG	1:A:163:ILE:HG23	2.21	0.64
2:B:570:GLY:O	2:B:574:LYS:HG2	1.98	0.64
1:G:75:ILE:HG21	1:G:535:GLU:CG	2.27	0.64
1:C:259:GLN:HG3	1:E:456:GLU:O	1.97	0.64
1:C:275:THR:CG2	1:C:478:ARG:CZ	2.75	0.64
1:E:285:PRO:HG2	1:E:288:THR:HB	1.80	0.64
1:G:286:SER:O	1:G:364:ALA:HA	1.98	0.64
1:G:547:LEU:HD23	1:G:547:LEU:H	1.62	0.64
1:E:183:ILE:O	1:E:479:GLY:N	2.31	0.64
1:E:278:ALA:O	1:E:387:LYS:HA	1.98	0.64
1:E:469:ASP:OD1	1:E:471:GLU:HG2	1.98	0.64
1:A:342:LEU:HB2	1:A:397:THR:HB	1.80	0.64
1:C:246:GLN:OE1	1:C:499:SER:HB2	1.98	0.64
1:C:543:LEU:O	1:C:546:GLU:HB3	1.97	0.64
1:G:403:GLU:O	1:G:405:VAL:HG22	1.98	0.64
1:A:152:ALA:HB3	1:A:155:LEU:HB3	1.78	0.64
1:C:84:TRP:HE1	1:C:230:VAL:CG1	2.10	0.64
1:E:449:VAL:HG12	1:E:450:PHE:H	1.62	0.64
1:G:142:LEU:HA	1:G:500:GLN:N	2.11	0.64
1:G:235:THR:HG23	1:G:507:LYS:HB2	1.80	0.64
1:A:169:THR:HG22	1:A:172:THR:HG23	1.80	0.64
1:A:232:LYS:HB3	1:A:442:HIS:HB2	1.80	0.64
1:A:396:VAL:HG12	1:A:397:THR:N	2.12	0.64
1:C:411:GLU:HG2	1:E:517:ASN:HD22	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:581:VAL:CG1	2:D:585:ILE:HD11	2.24	0.64
1:E:176:PHE:CE1	1:E:180:LEU:HD11	2.33	0.64
1:E:436:GLY:N	1:E:554:ASP:OD2	2.31	0.64
1:A:452:MET:HB2	1:E:446:ASN:O	1.98	0.64
1:E:237:GLU:CG	1:E:507:LYS:HE2	2.24	0.64
1:A:77:PRO:HA	1:A:533:GLU:OE1	1.97	0.64
1:E:144:ARG:HG2	1:E:144:ARG:HH11	1.62	0.64
1:E:88:TYR:HA	1:E:231:TYR:HB2	1.80	0.64
1:E:244:ILE:HG13	1:E:244:ILE:O	1.98	0.63
1:G:249:TRP:HB3	1:G:495:PHE:CD2	2.33	0.63
2:D:594:GLN:CD	1:E:41:ALA:HB1	2.17	0.63
1:E:148:ILE:N	1:E:148:ILE:HD12	2.12	0.63
1:E:165:ASN:ND2	1:E:497:GLY:HA2	2.12	0.63
1:E:176:PHE:O	1:E:179:THR:HB	1.97	0.63
1:E:181:ASN:O	1:E:407:ARG:NH2	2.31	0.63
1:G:129:PRO:HB2	1:G:163:ILE:HD11	1.80	0.63
1:G:88:TYR:HA	1:G:231:TYR:CB	2.29	0.63
1:C:142:LEU:O	1:C:143:TRP:HB3	1.99	0.63
1:C:443:TYR:HE2	1:E:113:ARG:HD2	1.64	0.63
1:E:63:MET:O	1:E:64:ASP:C	2.36	0.63
1:G:145:VAL:HG23	1:G:161:ALA:HB2	1.81	0.63
1:G:224:VAL:HG12	1:G:225:THR:H	1.62	0.63
1:G:542:ARG:HD2	2:H:582:ILE:HG22	1.81	0.63
1:C:287:ASN:O	1:C:362:ILE:HG23	1.99	0.63
1:C:363:THR:HG22	1:C:366:THR:H	1.63	0.63
1:E:262:THR:HB	1:E:406:ASN:OD1	1.98	0.63
1:E:87:LYS:O	1:E:91:PRO:HD3	1.98	0.63
1:A:186:TRP:CZ3	1:A:480:ILE:HG23	2.34	0.63
1:E:274:MET:HG3	1:E:296:ILE:HG12	1.80	0.63
1:G:366:THR:HG22	1:G:386:THR:HG22	1.81	0.63
1:C:297:THR:HG22	1:C:298:PRO:CD	2.29	0.63
1:C:363:THR:HG23	1:C:365:ASP:N	2.05	0.63
1:C:400:ILE:HD12	1:C:400:ILE:H	1.62	0.63
1:E:228:ARG:HD2	1:E:513:GLU:OE1	1.99	0.63
1:E:94:ALA:HA	1:E:97:SER:HB3	1.79	0.63
1:G:121:ARG:HG3	1:G:121:ARG:HH11	1.63	0.63
1:G:301:VAL:HA	1:G:321:PHE:HA	1.81	0.63
1:A:553:ALA:O	1:A:555:ASP:N	2.32	0.63
1:C:146:SER:HB3	1:C:494:HIS:ND1	2.14	0.63
1:C:475:LEU:HD21	1:E:267:GLU:HB2	1.77	0.63
1:G:370:SER:HA	1:G:381:ILE:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:182:ASN:HA	1:A:478:ARG:HD2	1.80	0.63
1:A:539:LEU:HD12	1:A:539:LEU:O	1.99	0.63
1:C:105:SER:O	1:C:230:VAL:HG21	1.98	0.63
1:C:407:ARG:HD2	1:C:462:GLN:HB3	1.79	0.63
1:C:446:ASN:OD1	1:C:487:ASN:HA	1.99	0.63
1:C:114:TYR:HA	1:C:527:HIS:O	1.98	0.63
1:C:76:ASP:CG	1:C:76:ASP:O	2.37	0.63
1:G:121:ARG:HG3	1:G:121:ARG:NH1	2.13	0.63
1:C:177:ILE:CG2	1:C:181:ASN:HD21	2.11	0.63
1:C:151:PRO:HD2	1:C:490:SER:HB3	1.80	0.63
1:E:129:PRO:HB3	1:E:194:TRP:CD1	2.34	0.63
1:G:279:SER:HB3	1:G:291:ARG:HE	1.64	0.63
1:G:123:ILE:HG12	1:G:507:LYS:HA	1.80	0.63
1:A:169:THR:HG22	1:A:172:THR:CG2	2.29	0.62
1:A:251:GLY:C	1:A:550:VAL:HG21	2.19	0.62
1:C:382:VAL:O	1:C:383:ARG:HD2	1.99	0.62
1:E:230:VAL:HG12	1:E:231:TYR:HD2	1.64	0.62
1:G:243:LEU:C	1:G:245:ASP:H	2.01	0.62
1:A:455:GLU:O	1:E:259:GLN:HG2	1.99	0.62
1:C:185:ASN:ND2	1:C:318:GLY:HA3	2.14	0.62
1:C:471:GLU:OE1	1:C:471:GLU:HA	1.99	0.62
1:C:442:HIS:ND1	1:C:489:SER:O	2.32	0.62
1:E:160:LEU:HD23	1:E:160:LEU:H	1.64	0.62
1:E:309:GLY:HA3	1:E:331:SER:CA	2.25	0.62
1:E:93:GLY:O	1:E:97:SER:HB2	1.99	0.62
1:G:156:ASN:HB2	1:G:208:LEU:HD23	1.81	0.62
1:C:252:ALA:HB1	1:C:424:VAL:HG11	1.80	0.62
1:C:369:TYR:CE1	1:C:383:ARG:HB2	2.35	0.62
1:G:106:LYS:HB3	1:G:530:ALA:HB2	1.80	0.62
1:A:292:ILE:C	1:A:292:ILE:HD12	2.18	0.62
1:A:297:THR:HG23	1:A:478:ARG:NE	2.14	0.62
1:A:250:VAL:HG22	1:A:429:GLN:CG	2.29	0.62
1:A:232:LYS:HE2	1:A:510:ASP:OD2	1.99	0.62
1:E:169:THR:H	1:E:172:THR:HB	1.64	0.62
1:E:371:VAL:HB	1:E:381:ILE:HD12	1.80	0.62
1:C:411:GLU:CG	1:E:517:ASN:HD22	2.12	0.62
2:F:607:ILE:HA	2:F:610:VAL:CG2	2.30	0.62
1:G:443:TYR:CB	1:G:544:GLN:HG2	2.30	0.62
1:C:79:GLU:OE2	1:C:79:GLU:N	2.32	0.62
2:D:592:ALA:O	2:D:593:VAL:HG13	1.99	0.62
1:E:106:LYS:HG3	1:E:117:ASP:OD2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:171:GLU:CD	1:A:171:GLU:N	2.50	0.62
1:A:285:PRO:HB2	1:A:288:THR:CB	2.27	0.62
1:C:187:ARG:HD3	1:C:212:TYR:CE1	2.34	0.62
1:C:230:VAL:HG12	1:C:231:TYR:HD2	1.65	0.62
1:C:354:THR:N	1:C:374:SER:HB3	2.13	0.62
1:C:428:GLU:HG2	1:C:430:PHE:CE1	2.34	0.62
1:C:495:PHE:HB3	1:C:498:ILE:CD1	2.30	0.62
1:E:184:THR:HG21	1:E:295:SER:HB2	1.80	0.62
2:H:564:LEU:HD23	2:H:564:LEU:N	2.14	0.62
1:A:228:ARG:HG2	1:A:452:MET:SD	2.39	0.62
1:C:538:GLN:HG3	1:C:542:ARG:HH11	1.65	0.62
1:E:169:THR:HB	1:E:172:THR:HG1	1.63	0.62
1:E:224:VAL:HB	1:E:515:THR:O	2.00	0.62
1:C:542:ARG:NH2	1:E:532:GLU:O	2.33	0.62
1:A:128:CYS:HA	1:A:143:TRP:CZ3	2.34	0.62
1:E:184:THR:HG21	1:E:295:SER:CB	2.29	0.62
1:G:116:VAL:HG11	1:G:522:VAL:HG11	1.81	0.62
1:A:129:PRO:HG2	1:A:163:ILE:CG2	2.24	0.62
1:E:160:LEU:HD23	1:E:160:LEU:N	2.15	0.62
1:E:297:THR:CG2	1:E:298:PRO:CD	2.53	0.62
1:G:127:GLU:O	1:G:194:TRP:NE1	2.32	0.62
1:G:435:SER:O	1:G:437:GLY:N	2.33	0.62
1:A:535:GLU:OE2	2:F:579:PRO:HG2	2.00	0.62
1:G:170:LEU:HD23	1:G:171:GLU:N	2.15	0.62
1:G:342:LEU:CD2	1:G:347:PRO:HA	2.29	0.62
1:A:444:LYS:HB2	1:A:450:PHE:HE2	1.65	0.61
1:C:297:THR:CB	1:C:298:PRO:HD3	2.30	0.61
1:E:274:MET:HE2	1:E:294:TRP:HE1	1.63	0.61
1:C:425:PRO:CB	1:E:62:THR:HG21	2.28	0.61
1:G:210:ASN:O	1:G:213:ALA:HB3	1.99	0.61
1:G:465:TYR:CD1	1:G:466:PRO:HD2	2.35	0.61
1:G:469:ASP:C	1:G:471:GLU:H	2.03	0.61
1:G:127:GLU:HG2	1:G:503:THR:CG2	2.29	0.61
1:G:90:ASP:OD2	2:H:561:VAL:HB	2.00	0.61
1:A:495:PHE:CB	1:A:498:ILE:HD11	2.30	0.61
1:E:126:ILE:HG12	1:E:147:PHE:HE2	1.64	0.61
1:E:444:LYS:HE3	1:E:450:PHE:HE2	1.65	0.61
1:C:465:TYR:CG	1:C:466:PRO:HD2	2.36	0.61
1:E:295:SER:HA	1:E:322:SER:HA	1.83	0.61
1:E:420:VAL:HG23	1:E:421:THR:N	2.14	0.61
1:E:435:SER:HA	1:E:554:ASP:OD2	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:299:LEU:HD11	1:G:338:PRO:HG2	1.82	0.61
1:G:396:VAL:HG12	1:G:397:THR:N	2.15	0.61
2:H:569:LEU:O	2:H:572:LEU:HB3	2.00	0.61
1:A:154:ARG:HB3	1:A:211:THR:CG2	2.27	0.61
1:C:128:CYS:SG	1:C:129:PRO:HD2	2.41	0.61
2:F:574:LYS:HG2	2:F:575:SER:H	1.64	0.61
1:G:280:ASN:N	1:G:280:ASN:ND2	2.49	0.61
1:E:207:VAL:HB	1:E:212:TYR:HB2	1.81	0.61
1:G:116:VAL:O	1:G:513:GLU:HA	1.99	0.61
1:C:299:LEU:HD23	1:C:321:PHE:CB	2.30	0.61
1:E:177:ILE:HG22	1:E:181:ASN:HD21	1.65	0.61
1:E:253:HIS:ND1	1:E:491:ALA:HB2	2.16	0.61
1:G:107:VAL:HG11	1:G:450:PHE:CD1	2.36	0.61
1:A:282:ILE:HD13	1:A:282:ILE:H	1.65	0.61
2:B:578:THR:HB	2:B:581:VAL:CG2	2.30	0.61
1:C:421:THR:HG21	1:G:123:ILE:CD1	2.29	0.61
1:E:297:THR:H	1:E:478:ARG:NH2	1.99	0.61
1:A:556:ASN:C	1:A:556:ASN:ND2	2.52	0.61
1:C:334:THR:HG22	1:C:356:SER:HA	1.83	0.61
2:D:595:ALA:O	2:D:596:ASN:HB2	2.00	0.61
1:G:411:GLU:HG3	1:G:464:HIS:ND1	2.15	0.61
1:A:162:ASN:ND2	1:A:166:GLU:HB2	2.16	0.61
1:A:276:VAL:HG22	1:A:294:TRP:HB2	1.81	0.61
1:C:185:ASN:CG	1:C:318:GLY:HA3	2.20	0.61
1:A:357:PHE:HE1	1:A:369:TYR:CD1	2.19	0.61
2:B:581:VAL:HG12	2:B:582:ILE:N	2.16	0.61
1:C:273:SER:CB	1:C:475:LEU:HD12	2.18	0.61
1:E:220:ARG:HH12	1:G:218:GLY:HA3	1.65	0.61
1:C:177:ILE:HG22	1:C:181:ASN:ND2	2.16	0.60
1:C:444:LYS:HD2	1:C:447:ASN:O	2.01	0.60
1:E:158:ILE:HG22	1:E:159:ALA:N	2.15	0.60
1:E:299:LEU:HD12	1:E:300:PRO:CD	2.30	0.60
1:G:284:GLN:OE1	1:G:289:VAL:HG11	2.00	0.60
1:E:507:LYS:HE3	1:G:57:SER:HB2	1.82	0.60
1:C:205:ILE:HD13	1:C:480:ILE:CD1	2.30	0.60
1:C:87:LYS:C	1:C:89:MET:N	2.55	0.60
1:E:178:GLN:HA	1:E:181:ASN:HD22	1.66	0.60
1:E:90:ASP:CB	2:F:561:VAL:HB	2.31	0.60
1:G:136:LEU:HD12	1:G:141:LYS:HD3	1.83	0.60
2:H:578:THR:CG2	2:H:581:VAL:H	2.09	0.60
1:A:435:SER:CB	1:A:552:GLN:HG2	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:535:GLU:CD	1:C:535:GLU:H	2.03	0.60
1:A:180:LEU:HA	1:A:183:ILE:HD11	1.83	0.60
1:A:243:LEU:CD1	1:A:244:ILE:HG23	2.31	0.60
1:A:424:VAL:HG12	1:A:427:TYR:HB3	1.83	0.60
2:D:560:THR:HG22	2:D:564:LEU:CD2	2.31	0.60
1:E:100:ALA:O	1:E:101:LEU:HB3	2.01	0.60
1:G:159:ALA:HB2	1:G:206:TYR:HE1	1.66	0.60
1:G:217:ILE:HG23	1:G:319:LYS:NZ	2.15	0.60
1:G:287:ASN:CA	1:G:364:ALA:HB2	2.30	0.60
1:A:329:VAL:HG12	1:A:330:ASN:H	1.66	0.60
1:E:154:ARG:HG3	1:E:154:ARG:HH11	1.67	0.60
1:C:273:SER:H	1:C:297:THR:CB	2.14	0.60
1:C:448:PRO:HG3	1:E:449:VAL:CG1	2.31	0.60
1:E:189:LEU:HD12	1:E:205:ILE:HG12	1.82	0.60
1:E:210:ASN:HD22	1:G:524:GLN:HG3	1.64	0.60
1:E:267:GLU:O	1:E:401:ASP:HA	2.02	0.60
1:E:386:THR:O	1:E:389:SER:HB3	2.00	0.60
1:G:290:ALA:CB	1:G:387:LYS:HE2	2.32	0.60
1:C:105:SER:HB2	1:C:117:ASP:CB	2.25	0.60
1:C:256:VAL:CG1	1:C:410:ILE:HG23	2.32	0.60
1:C:385:VAL:HG22	1:C:392:SER:OG	2.01	0.60
1:A:455:GLU:HG3	1:E:259:GLN:CB	2.32	0.60
2:F:611:GLY:O	2:F:615:VAL:HG23	2.00	0.60
1:G:277:SER:N	1:G:391:VAL:HG13	2.17	0.60
1:A:180:LEU:HA	1:A:183:ILE:CD1	2.32	0.60
1:E:88:TYR:HA	1:E:231:TYR:CB	2.31	0.60
1:G:194:TRP:CE3	1:G:204:SER:HB2	2.37	0.60
1:G:411:GLU:HG3	1:G:464:HIS:CE1	2.36	0.60
1:E:367:VAL:O	1:E:385:VAL:HG22	2.02	0.60
1:C:177:ILE:O	1:C:180:LEU:N	2.34	0.59
1:C:297:THR:HG22	1:C:298:PRO:N	2.18	0.59
1:E:295:SER:HB3	1:E:322:SER:CB	2.31	0.59
1:E:431:LEU:H	1:E:431:LEU:HD12	1.66	0.59
1:G:121:ARG:HA	1:G:508:THR:O	2.01	0.59
1:G:126:ILE:HG12	1:G:147:PHE:HE1	1.66	0.59
1:G:159:ALA:HB2	1:G:206:TYR:CE1	2.36	0.59
1:G:254:ILE:CG1	1:G:424:VAL:HG21	2.32	0.59
1:C:542:ARG:HD3	2:D:582:ILE:CG2	2.32	0.59
1:E:241:PRO:C	1:E:243:LEU:H	2.04	0.59
1:E:297:THR:CB	1:E:298:PRO:HD3	2.32	0.59
1:G:485:GLU:HG3	1:G:488:PHE:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:257:LYS:HD3	1:C:456:GLU:HB2	1.83	0.59
1:E:297:THR:HG23	1:E:476:GLY:CA	2.27	0.59
1:G:257:LYS:HE2	1:G:446:ASN:HB3	1.84	0.59
1:G:280:ASN:N	1:G:280:ASN:HD22	1.99	0.59
1:A:128:CYS:HB3	1:A:131:VAL:CG2	2.32	0.59
1:A:306:LEU:CD1	1:A:311:GLY:HA2	2.32	0.59
1:A:366:THR:O	1:A:367:VAL:CG2	2.50	0.59
2:D:561:VAL:HA	2:D:564:LEU:HD22	1.83	0.59
1:E:110:GLY:HA2	1:E:530:ALA:O	2.02	0.59
1:E:90:ASP:HB3	2:F:562:SER:HB3	1.83	0.59
1:C:205:ILE:HD13	1:C:480:ILE:HD11	1.85	0.59
1:E:342:LEU:O	1:E:343:ALA:HB2	2.02	0.59
1:G:342:LEU:HD22	1:G:347:PRO:HA	1.84	0.59
1:A:542:ARG:HE	2:B:583:LYS:HA	1.67	0.59
1:E:228:ARG:HB3	1:E:452:MET:HE3	1.85	0.59
1:E:229:LYS:HE3	1:E:510:ASP:OD2	2.01	0.59
1:E:297:THR:HG21	1:E:476:GLY:H	1.68	0.59
1:A:315:ASN:HD22	1:A:316:THR:H	1.50	0.59
1:A:495:PHE:HB3	1:A:498:ILE:CD1	2.32	0.59
1:A:445:MET:CE	1:C:113:ARG:HB2	2.32	0.59
1:E:116:VAL:HG12	1:E:514:GLY:O	2.03	0.59
1:E:153:PHE:HB3	1:E:482:ASP:OD2	2.03	0.59
1:G:274:MET:CB	1:G:296:ILE:HG13	2.28	0.59
1:G:329:VAL:HG12	1:G:359:MET:O	2.03	0.59
1:G:435:SER:C	1:G:437:GLY:H	2.06	0.59
1:G:538:GLN:HG2	2:H:582:ILE:HG21	1.84	0.59
1:C:375:LEU:HD12	1:C:376:THR:H	1.66	0.59
1:E:148:ILE:HA	1:E:492:VAL:HG12	1.85	0.59
1:E:306:LEU:HD13	1:E:311:GLY:HA2	1.84	0.59
1:G:191:THR:HG21	1:G:193:GLN:OE1	2.03	0.59
1:G:325:ILE:HD12	1:G:333:TRP:CE3	2.37	0.59
1:A:395:PRO:CB	1:C:267:GLU:HB3	2.32	0.59
1:A:265:ALA:HB2	1:A:404:ALA:N	2.18	0.59
1:A:422:THR:O	1:C:523:GLY:HA3	2.03	0.59
1:C:129:PRO:HA	1:C:194:TRP:CD1	2.38	0.59
1:C:160:LEU:HD22	1:C:161:ALA:N	2.17	0.59
1:C:262:THR:H	1:E:262:THR:HG21	1.68	0.59
1:C:108:PRO:HA	1:C:530:ALA:CB	2.32	0.59
1:E:301:VAL:HA	1:E:321:PHE:HA	1.84	0.59
1:E:313:THR:CB	1:E:325:ILE:HG22	2.33	0.59
1:G:291:ARG:C	1:G:291:ARG:HD2	2.22	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:360:THR:HG22	1:G:361:THR:OG1	2.02	0.59
1:A:278:ALA:HA	1:A:292:ILE:HG22	1.85	0.58
1:A:408:LEU:H	1:A:461:PHE:HA	1.67	0.58
1:C:244:ILE:HD12	1:C:501:SER:OG	2.03	0.58
1:E:265:ALA:CB	1:E:404:ALA:HB2	2.33	0.58
1:A:451:GLU:HA	1:E:448:PRO:HD3	1.85	0.58
1:G:313:THR:HB	1:G:325:ILE:HG22	1.85	0.58
1:G:460:GLY:HA2	1:G:480:ILE:O	2.03	0.58
1:A:297:THR:HG23	1:A:478:ARG:NH2	2.18	0.58
1:C:239:ASN:OD1	1:C:503:THR:OG1	2.21	0.58
1:E:207:VAL:HG11	1:E:212:TYR:CD1	2.38	0.58
1:E:220:ARG:NH1	1:G:215:ALA:CB	2.40	0.58
1:A:424:VAL:O	1:A:427:TYR:CD2	2.57	0.58
1:C:244:ILE:HD12	1:C:501:SER:HG	1.68	0.58
1:E:153:PHE:HB2	1:E:227:PHE:CE2	2.38	0.58
1:E:153:PHE:HD2	1:E:154:ARG:NH1	2.00	0.58
2:F:577:ALA:HB1	2:F:582:ILE:HD11	1.85	0.58
1:A:422:THR:HG22	1:A:422:THR:O	2.02	0.58
1:C:84:TRP:HE1	1:C:230:VAL:HG13	1.68	0.58
1:C:304:VAL:CG1	1:C:305:ALA:H	2.16	0.58
2:F:578:THR:HB	2:F:581:VAL:HG23	1.85	0.58
1:G:333:TRP:O	1:G:334:THR:HB	2.04	0.58
1:G:485:GLU:C	1:G:487:ASN:H	2.06	0.58
1:A:112:LEU:HB3	1:A:114:TYR:O	2.03	0.58
1:A:136:LEU:HD21	1:A:501:SER:CA	2.33	0.58
1:A:226:GLN:NE2	1:A:452:MET:HG2	2.18	0.58
1:A:306:LEU:HD13	1:A:311:GLY:HA2	1.86	0.58
1:A:234:ILE:CG1	1:A:508:THR:HG23	2.19	0.58
1:C:443:TYR:CE2	1:E:113:ARG:HD2	2.38	0.58
1:E:452:MET:HE2	1:E:452:MET:HA	1.83	0.58
1:E:89:MET:HE1	1:E:540:ALA:HB1	1.85	0.58
2:F:577:ALA:CB	2:F:582:ILE:HD11	2.34	0.58
1:G:181:ASN:C	1:G:407:ARG:HH22	2.06	0.58
1:G:443:TYR:CG	1:G:544:GLN:HG2	2.38	0.58
1:A:106:LYS:HG2	1:A:117:ASP:HB3	1.84	0.58
1:C:542:ARG:HD3	2:D:582:ILE:HG22	1.85	0.58
1:E:168:LEU:CD1	1:E:172:THR:HG22	2.33	0.58
1:E:309:GLY:HA2	1:E:331:SER:HA	1.81	0.58
1:A:144:ARG:HD2	1:A:496:TRP:HD1	1.66	0.58
1:A:74:SER:O	1:A:75:ILE:HB	2.04	0.58
1:C:275:THR:CG2	1:C:478:ARG:HH12	2.13	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:178:GLN:NE2	1:E:390:GLY:HA2	2.19	0.58
1:G:160:LEU:HD12	1:G:161:ALA:N	2.19	0.58
1:G:162:ASN:OD1	1:G:166:GLU:N	2.37	0.58
1:G:475:LEU:O	1:G:476:GLY:O	2.21	0.58
1:C:246:GLN:HG3	1:G:241:PRO:CB	2.29	0.58
1:C:81:ALA:O	1:C:84:TRP:HB3	2.03	0.58
1:A:279:SER:HB3	1:A:388:GLY:HA2	1.85	0.58
1:A:357:PHE:CE1	1:A:369:TYR:HD1	2.19	0.58
1:C:360:THR:HB	1:C:368:VAL:CG1	2.34	0.58
1:E:57:SER:HB3	1:G:237:GLU:OE2	2.04	0.58
1:G:297:THR:HG22	1:G:298:PRO:N	2.17	0.58
1:E:194:TRP:CE3	1:E:194:TRP:HA	2.39	0.58
1:E:275:THR:CG2	1:E:478:ARG:HH12	2.17	0.58
1:E:470:PRO:O	1:E:473:ASN:HB2	2.04	0.58
1:E:255:PRO:HB3	1:E:445:MET:CG	2.20	0.57
1:E:389:SER:OG	1:E:390:GLY:N	2.36	0.57
1:A:164:ASN:HB2	1:A:166:GLU:HG3	1.85	0.57
1:A:292:ILE:HG13	1:A:325:ILE:HD11	1.85	0.57
1:A:456:GLU:OE1	1:E:257:LYS:HD3	2.04	0.57
1:C:300:PRO:CG	1:C:400:ILE:HG12	2.33	0.57
1:E:304:VAL:HG21	1:E:323:VAL:CG2	2.34	0.57
1:E:313:THR:HA	1:E:325:ILE:HG22	1.86	0.57
1:E:227:PHE:C	1:E:452:MET:HE2	2.24	0.57
2:F:562:SER:O	2:F:566:SER:N	2.31	0.57
1:G:257:LYS:NZ	1:G:257:LYS:HB3	2.18	0.57
1:A:197:PHE:CE2	1:A:201:TRP:HB3	2.39	0.57
1:A:297:THR:HB	1:A:476:GLY:HA3	1.87	0.57
1:C:149:SER:OG	1:C:232:LYS:HE2	2.03	0.57
1:E:238:PHE:CG	1:E:432:CYS:HB3	2.39	0.57
1:C:122:PRO:HD2	1:C:508:THR:OG1	2.03	0.57
1:C:363:THR:CG2	1:C:366:THR:N	2.66	0.57
1:E:246:GLN:HE22	1:E:499:SER:HB2	1.70	0.57
1:G:226:GLN:HA	1:G:454:GLY:HA2	1.86	0.57
1:G:261:GLU:O	1:G:406:ASN:HB2	2.05	0.57
1:G:268:ARG:HG2	1:G:268:ARG:HH11	1.69	0.57
1:G:287:ASN:HA	1:G:364:ALA:CB	2.34	0.57
1:A:206:TYR:N	1:A:206:TYR:CD1	2.72	0.57
1:A:363:THR:HB	1:A:366:THR:HG22	1.87	0.57
1:C:299:LEU:HD13	1:C:341:ILE:HD11	1.86	0.57
1:E:253:HIS:HD2	1:E:549:GLY:HA3	1.59	0.57
1:G:196:GLN:HB2	1:G:202:TYR:CE2	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:279:SER:HB3	1:G:291:ARG:NE	2.19	0.57
1:A:262:THR:O	1:A:264:PRO:HD3	2.05	0.57
1:A:185:ASN:CG	1:A:318:GLY:HA3	2.25	0.57
1:A:346:GLU:OE1	1:A:346:GLU:HA	2.04	0.57
1:E:306:LEU:HD12	1:E:333:TRP:CE2	2.38	0.57
1:E:417:THR:HG22	1:E:418:GLU:OE1	2.05	0.57
1:G:156:ASN:HB3	1:G:206:TYR:O	2.04	0.57
1:G:271:ALA:HA	1:G:397:THR:HA	1.86	0.57
1:G:272:GLY:HA3	1:G:298:PRO:HD3	1.86	0.57
1:G:313:THR:HB	1:G:333:TRP:NE1	2.19	0.57
1:A:217:ILE:HG23	1:E:467:GLY:H	1.68	0.57
1:A:366:THR:HG23	1:A:367:VAL:N	2.19	0.57
1:C:136:LEU:HD12	1:C:137:PRO:O	2.05	0.57
1:C:180:LEU:HA	1:C:183:ILE:CD1	2.35	0.57
1:C:238:PHE:CD2	1:C:432:CYS:HB3	2.39	0.57
1:E:210:ASN:O	1:E:213:ALA:HB3	2.05	0.57
1:E:238:PHE:CD1	1:E:432:CYS:HB3	2.39	0.57
1:E:184:THR:HA	1:E:478:ARG:HB2	1.87	0.57
1:E:538:GLN:HA	1:E:541:ASN:HD22	1.69	0.57
1:G:235:THR:CG2	1:G:507:LYS:HB2	2.35	0.57
1:G:443:TYR:HB3	1:G:544:GLN:HG2	1.86	0.57
1:E:145:VAL:HG23	1:E:161:ALA:HB2	1.86	0.57
1:E:475:LEU:O	1:E:476:GLY:O	2.23	0.57
2:F:575:SER:OG	2:F:581:VAL:HG11	2.04	0.57
1:G:199:PRO:HD3	1:G:388:GLY:CA	2.35	0.57
1:A:306:LEU:HD23	1:A:332:VAL:O	2.05	0.57
1:C:110:GLY:HA2	1:C:530:ALA:O	2.04	0.57
2:D:557:PHE:CD2	2:D:557:PHE:N	2.73	0.57
2:F:578:THR:O	2:F:582:ILE:HG12	2.05	0.57
1:G:292:ILE:N	1:G:292:ILE:HD13	2.20	0.57
1:G:296:ILE:HD13	1:G:321:PHE:CD2	2.40	0.57
1:G:63:MET:HG3	1:G:64:ASP:N	2.19	0.57
1:A:299:LEU:HD12	1:A:300:PRO:HD2	1.87	0.57
1:E:130:THR:CB	1:E:163:ILE:HG12	2.34	0.57
1:E:185:ASN:OD1	1:E:318:GLY:HA3	2.05	0.57
1:A:531:GLU:CG	2:F:583:LYS:HE3	2.30	0.57
2:F:596:ASN:HB2	2:F:597:PRO:HD2	1.86	0.57
1:G:88:TYR:HA	1:G:231:TYR:HB2	1.87	0.57
1:A:253:HIS:CE1	1:A:442:HIS:HA	2.40	0.56
1:C:128:CYS:HA	1:C:143:TRP:CZ3	2.40	0.56
1:C:151:PRO:CD	1:C:490:SER:HB3	2.34	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:253:HIS:NE2	1:E:549:GLY:HA3	2.19	0.56
2:F:607:ILE:HA	2:F:610:VAL:HG23	1.86	0.56
1:G:162:ASN:CG	1:G:166:GLU:HB2	2.25	0.56
1:G:174:ASN:HD21	1:G:468:TYR:HA	1.66	0.56
1:A:173:ARG:O	1:A:176:PHE:HB3	2.05	0.56
1:A:242:THR:CA	1:A:245:ASP:HB2	2.29	0.56
1:A:412:MET:HG2	1:A:463:PHE:HB3	1.88	0.56
2:B:578:THR:HB	2:B:581:VAL:CB	2.34	0.56
1:C:312:GLY:HA3	1:C:326:ASP:OD1	2.05	0.56
1:C:97:SER:C	1:C:99:LYS:H	2.07	0.56
1:E:162:ASN:HA	1:E:200:GLY:O	2.04	0.56
1:E:119:GLU:OE2	1:E:509:TYR:HD2	1.87	0.56
1:G:205:ILE:CD1	1:G:480:ILE:HD11	2.35	0.56
1:A:146:SER:HB2	1:A:160:LEU:HD11	1.86	0.56
1:A:170:LEU:O	1:A:173:ARG:N	2.39	0.56
1:A:257:LYS:HD2	1:C:452:MET:O	2.05	0.56
1:A:281:ALA:O	1:A:282:ILE:C	2.43	0.56
1:C:282:ILE:HG13	1:C:282:ILE:O	2.04	0.56
1:C:342:LEU:CD2	1:C:347:PRO:HA	2.36	0.56
1:C:363:THR:HG21	1:C:366:THR:OG1	2.05	0.56
1:G:185:ASN:HB3	1:G:318:GLY:HA3	1.86	0.56
1:G:276:VAL:HG13	1:G:294:TRP:HB2	1.86	0.56
1:G:299:LEU:HD12	1:G:300:PRO:HD2	1.87	0.56
1:A:177:ILE:O	1:A:181:ASN:ND2	2.39	0.56
1:A:299:LEU:HD22	1:A:341:ILE:HD11	1.88	0.56
1:E:121:ARG:HH11	1:E:121:ARG:HG3	1.70	0.56
1:E:538:GLN:HE22	2:F:582:ILE:HG13	1.71	0.56
1:A:235:THR:HG23	1:A:507:LYS:HB3	1.88	0.56
1:A:250:VAL:HG22	1:A:429:GLN:HG3	1.88	0.56
1:C:475:LEU:HD21	1:E:267:GLU:CB	2.35	0.56
1:E:206:TYR:N	1:E:206:TYR:CD1	2.73	0.56
1:E:40:GLN:OE1	1:E:70:ILE:HA	2.05	0.56
2:F:599:ILE:C	2:F:600:LEU:HG	2.26	0.56
1:G:534:ASP:HA	1:G:537:VAL:CB	2.34	0.56
1:A:274:MET:HB3	1:A:394:THR:HB	1.87	0.56
1:A:107:VAL:CG1	1:A:450:PHE:HD1	2.13	0.56
1:C:407:ARG:CD	1:C:462:GLN:HB2	2.36	0.56
1:E:163:ILE:HD11	1:E:202:TYR:CD1	2.41	0.56
1:E:163:ILE:HD11	1:E:202:TYR:CE1	2.40	0.56
1:E:253:HIS:CD2	1:E:549:GLY:CA	2.84	0.56
1:E:107:VAL:HG11	1:E:450:PHE:CD1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:165:ASN:O	1:A:165:ASN:ND2	2.38	0.56
1:A:539:LEU:HD12	1:A:543:LEU:HG	1.87	0.56
1:C:145:VAL:HG13	1:C:145:VAL:O	2.06	0.56
1:C:292:ILE:H	1:C:292:ILE:HD13	1.71	0.56
1:E:302:ALA:HB2	1:E:338:PRO:CG	2.35	0.56
1:G:258:PRO:HB3	1:G:410:ILE:CG1	2.36	0.56
1:C:349:ALA:HB2	1:C:373:SER:OG	2.06	0.56
2:D:567:ILE:HG23	2:D:568:GLY:H	1.71	0.56
1:A:217:ILE:HG12	1:E:466:PRO:HA	1.88	0.56
1:A:380:VAL:CG1	1:A:381:ILE:H	2.15	0.56
1:A:444:LYS:CB	1:A:450:PHE:HE2	2.18	0.56
1:A:535:GLU:CD	2:F:579:PRO:HG2	2.26	0.56
1:A:91:PRO:CG	1:A:233:GLY:HA3	2.36	0.56
1:C:273:SER:HA	1:C:396:VAL:HG23	1.88	0.56
1:E:126:ILE:HD12	1:E:126:ILE:N	2.21	0.56
1:E:518:ALA:C	1:E:520:SER:N	2.59	0.56
1:G:131:VAL:O	1:G:132:SER:OG	2.23	0.56
1:G:244:ILE:O	1:G:244:ILE:HG22	2.05	0.56
1:A:126:ILE:HG22	1:A:126:ILE:O	2.06	0.56
1:C:122:PRO:HG3	1:C:209:PRO:HD2	1.87	0.56
1:G:169:THR:HG22	1:G:172:THR:H	1.71	0.56
1:G:369:TYR:CE1	1:G:383:ARG:HB3	2.41	0.56
1:G:425:PRO:HG2	1:G:426:LYS:H	1.71	0.56
1:C:250:VAL:O	1:C:250:VAL:HG13	2.04	0.56
1:C:453:THR:HG21	1:C:485:GLU:HA	1.88	0.56
1:C:142:LEU:O	1:C:500:GLN:OE1	2.23	0.56
1:C:547:LEU:O	1:E:113:ARG:HG2	2.06	0.56
1:A:449:VAL:HG11	1:E:448:PRO:HB2	1.88	0.56
1:E:154:ARG:N	1:E:482:ASP:OD1	2.37	0.56
2:F:567:ILE:HD11	2:F:571:LEU:HD21	1.86	0.56
1:A:289:VAL:HG12	1:A:290:ALA:H	1.70	0.55
1:A:342:LEU:O	1:A:396:VAL:HG13	2.06	0.55
1:A:75:ILE:HD12	2:B:577:ALA:HB2	1.88	0.55
1:E:272:GLY:O	1:E:475:LEU:HD12	2.06	0.55
1:E:93:GLY:O	1:E:97:SER:N	2.38	0.55
1:G:122:PRO:HB3	1:G:209:PRO:HG3	1.87	0.55
1:G:207:VAL:HG12	1:G:208:LEU:H	1.70	0.55
1:G:257:LYS:HB3	1:G:257:LYS:HZ2	1.71	0.55
1:G:262:THR:O	1:G:264:PRO:HD3	2.06	0.55
1:A:279:SER:HA	1:A:387:LYS:HG2	1.88	0.55
1:E:152:ALA:O	1:E:229:LYS:NZ	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:295:SER:HB3	1:E:322:SER:HB2	1.89	0.55
1:E:435:SER:C	1:E:437:GLY:N	2.59	0.55
1:G:117:ASP:N	1:G:117:ASP:OD2	2.39	0.55
1:G:373:SER:C	1:G:375:LEU:H	2.08	0.55
1:A:465:TYR:CD1	1:A:466:PRO:HD2	2.41	0.55
1:A:537:VAL:HG23	1:A:538:GLN:N	2.20	0.55
1:C:495:PHE:HB3	1:C:498:ILE:HD11	1.88	0.55
1:C:121:ARG:HA	1:C:508:THR:O	2.06	0.55
1:C:440:ILE:HA	1:C:549:GLY:O	2.05	0.55
1:E:220:ARG:CD	1:G:215:ALA:CB	2.77	0.55
1:G:142:LEU:N	1:G:142:LEU:HD23	2.21	0.55
1:G:313:THR:CB	1:G:325:ILE:HG22	2.36	0.55
1:A:292:ILE:HG13	1:A:325:ILE:CD1	2.35	0.55
1:A:451:GLU:OE1	1:E:451:GLU:OE1	2.24	0.55
1:C:304:VAL:CG1	1:C:305:ALA:N	2.69	0.55
1:C:329:VAL:HG12	1:C:362:ILE:HB	1.88	0.55
1:E:410:ILE:O	1:E:463:PHE:HA	2.07	0.55
1:G:189:LEU:CD2	1:G:189:LEU:N	2.70	0.55
1:G:206:TYR:N	1:G:206:TYR:CD1	2.74	0.55
1:G:288:THR:C	1:G:362:ILE:HD11	2.27	0.55
1:G:301:VAL:HG12	1:G:319:LYS:O	2.07	0.55
1:C:136:LEU:HD11	1:C:138:LEU:HD23	1.87	0.55
1:C:485:GLU:O	1:C:486:ASN:C	2.44	0.55
1:C:546:GLU:CG	2:D:590:VAL:HG21	2.37	0.55
1:C:435:SER:HB2	1:C:552:GLN:HG2	1.87	0.55
1:C:475:LEU:CG	1:E:267:GLU:OE2	2.54	0.55
1:E:210:ASN:HD22	1:G:524:GLN:CD	2.10	0.55
1:A:302:ALA:HB3	1:A:321:PHE:CD1	2.41	0.55
1:A:444:LYS:HB2	1:A:450:PHE:CE2	2.42	0.55
1:A:87:LYS:HZ3	1:A:95:VAL:CG2	2.20	0.55
1:C:319:LYS:HG3	1:C:320:PHE:CE1	2.42	0.55
1:E:452:MET:CE	1:E:452:MET:HA	2.36	0.55
1:E:183:ILE:O	1:E:478:ARG:HB2	2.07	0.55
2:F:572:LEU:HD11	2:F:577:ALA:HB2	1.89	0.55
2:B:567:ILE:O	2:B:571:LEU:HG	2.07	0.55
1:C:313:THR:CA	1:C:325:ILE:HG22	2.31	0.55
1:E:130:THR:HG22	1:E:132:SER:H	1.72	0.55
1:E:149:SER:HG	1:E:442:HIS:CE1	2.25	0.55
1:G:230:VAL:HG23	1:G:512:TRP:CA	2.37	0.55
1:G:259:GLN:O	1:G:409:SER:HB3	2.07	0.55
2:H:562:SER:HA	2:H:565:ALA:HB3	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:177:ILE:HG22	1:C:181:ASN:HD21	1.71	0.55
1:E:228:ARG:HG2	1:E:452:MET:HE1	1.89	0.55
1:E:273:SER:OG	1:E:475:LEU:HG	2.05	0.55
1:G:248:TRP:NE1	1:G:429:GLN:HG2	2.13	0.55
1:A:107:VAL:HG12	1:A:109:ASP:OD1	2.07	0.55
1:A:139:ASP:HB3	1:A:141:LYS:HG3	1.89	0.55
1:A:297:THR:HG21	1:A:476:GLY:N	2.21	0.55
1:E:337:ALA:O	1:E:351:GLU:O	2.25	0.55
1:G:533:GLU:HA	1:G:533:GLU:OE1	2.07	0.55
1:C:290:ALA:HB2	1:C:387:LYS:NZ	2.12	0.55
1:G:228:ARG:O	1:G:228:ARG:HG3	2.06	0.55
1:A:400:ILE:CG1	1:A:401:ASP:H	2.08	0.54
1:A:95:VAL:HG21	1:A:509:TYR:CE2	2.42	0.54
1:C:385:VAL:HG22	1:C:392:SER:CB	2.37	0.54
1:C:86:TYR:OH	2:D:566:SER:HA	2.07	0.54
1:A:137:PRO:O	1:A:137:PRO:HG2	2.07	0.54
1:C:207:VAL:CG1	1:C:208:LEU:N	2.69	0.54
1:C:279:SER:HA	1:C:387:LYS:HB2	1.89	0.54
1:A:111:LEU:HD22	1:E:448:PRO:HG3	1.89	0.54
1:C:423:ASN:OD1	1:E:520:SER:HB2	2.08	0.54
1:C:443:TYR:HD2	1:E:113:ARG:NH1	2.06	0.54
1:E:227:PHE:HD1	1:E:228:ARG:N	2.06	0.54
1:E:552:GLN:C	1:E:554:ASP:H	2.10	0.54
1:G:109:ASP:HA	1:G:532:GLU:HA	1.89	0.54
1:G:125:THR:O	1:G:126:ILE:C	2.46	0.54
1:G:205:ILE:HD13	1:G:480:ILE:CD1	2.38	0.54
1:A:363:THR:HG22	1:A:365:ASP:N	2.13	0.54
1:A:451:GLU:OE1	1:C:451:GLU:OE2	2.26	0.54
1:E:186:TRP:CD1	1:E:481:VAL:HG23	2.42	0.54
1:G:82:VAL:O	1:G:83:GLY:C	2.44	0.54
1:A:385:VAL:CG2	1:A:392:SER:HB2	2.34	0.54
1:A:86:TYR:O	1:A:90:ASP:N	2.27	0.54
1:C:131:VAL:CG1	1:C:132:SER:N	2.71	0.54
1:C:250:VAL:HA	1:C:429:GLN:HA	1.89	0.54
1:C:492:VAL:HG11	1:C:494:HIS:NE2	2.21	0.54
1:C:495:PHE:CD2	1:C:498:ILE:HD11	2.42	0.54
1:C:546:GLU:HG3	2:D:590:VAL:HG21	1.89	0.54
1:E:169:THR:N	1:E:172:THR:HB	2.22	0.54
1:G:125:THR:HG23	1:G:505:VAL:HG22	1.89	0.54
1:G:107:VAL:HG23	1:G:230:VAL:HG13	1.88	0.54
1:G:86:TYR:HB3	1:G:94:ALA:HB1	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:88:TYR:HA	1:G:231:TYR:HB3	1.89	0.54
2:H:560:THR:O	2:H:563:ALA:HB3	2.07	0.54
1:A:325:ILE:O	1:A:325:ILE:HD12	2.07	0.54
1:A:329:VAL:HG12	1:A:330:ASN:N	2.22	0.54
1:C:499:SER:O	1:C:500:GLN:C	2.45	0.54
1:C:97:SER:O	1:C:99:LYS:N	2.41	0.54
1:E:214:MET:HA	1:E:221:THR:HG21	1.88	0.54
1:E:261:GLU:OE1	1:E:409:SER:HB2	2.08	0.54
1:E:443:TYR:O	1:E:445:MET:N	2.41	0.54
2:F:575:SER:OG	2:F:585:ILE:HD11	2.07	0.54
1:A:293:VAL:HG22	1:A:324:GLU:CB	2.38	0.54
1:E:297:THR:CA	1:E:478:ARG:HH21	2.21	0.54
1:E:354:THR:N	1:E:374:SER:OG	2.27	0.54
1:E:225:THR:CG2	1:E:517:ASN:HB2	2.36	0.54
1:G:267:GLU:O	1:G:268:ARG:C	2.44	0.54
1:G:458:PHE:CD1	1:G:458:PHE:C	2.81	0.54
1:G:550:VAL:O	1:G:551:TYR:CD2	2.61	0.54
1:G:68:HIS:O	1:G:78:SER:HA	2.08	0.54
1:A:363:THR:HB	1:A:366:THR:N	2.22	0.54
1:A:75:ILE:O	1:A:75:ILE:HG22	2.06	0.54
1:C:189:LEU:HD11	1:C:203:TYR:OH	2.08	0.54
1:C:236:PHE:HD2	1:C:506:CYS:HG	1.53	0.54
1:E:121:ARG:NH1	1:E:121:ARG:HG3	2.23	0.54
1:E:175:THR:O	1:E:178:GLN:HG3	2.08	0.54
1:E:190:GLY:C	1:E:192:GLY:H	2.10	0.54
1:A:295:SER:HB3	1:A:322:SER:CB	2.38	0.54
1:A:426:LYS:HD2	1:C:113:ARG:O	2.08	0.54
1:C:256:VAL:HG11	1:C:410:ILE:HG23	1.90	0.54
1:E:210:ASN:HD22	1:G:524:GLN:CG	2.20	0.54
1:E:295:SER:O	1:E:296:ILE:HG13	2.08	0.54
1:E:518:ALA:O	1:E:520:SER:N	2.41	0.54
1:E:536:VAL:O	1:E:539:LEU:N	2.40	0.54
1:G:296:ILE:H	1:G:321:PHE:HD2	1.54	0.54
1:A:306:LEU:HD11	1:A:310:THR:O	2.09	0.54
1:A:92:ALA:HB3	1:A:556:ASN:HB2	1.89	0.54
2:D:594:GLN:HA	1:E:42:THR:O	2.08	0.54
1:E:181:ASN:OD1	1:E:463:PHE:N	2.40	0.54
2:F:577:ALA:CA	2:F:582:ILE:HD11	2.38	0.54
1:G:168:LEU:HD22	1:G:173:ARG:CG	2.23	0.54
1:G:238:PHE:CD2	1:G:432:CYS:HB3	2.43	0.54
1:G:444:LYS:CG	1:G:447:ASN:O	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:169:THR:N	1:A:172:THR:OG1	2.41	0.53
1:C:120:GLN:C	1:C:122:PRO:HD3	2.28	0.53
1:C:145:VAL:HG13	1:C:495:PHE:HB2	1.90	0.53
1:C:336:THR:HG22	1:C:352:GLY:O	2.09	0.53
1:E:187:ARG:HG3	1:E:212:TYR:CE1	2.43	0.53
1:A:404:ALA:CB	1:E:261:GLU:OE2	2.47	0.53
1:G:272:GLY:HA3	1:G:298:PRO:CD	2.38	0.53
1:A:84:TRP:CD1	1:A:230:VAL:HG13	2.43	0.53
1:A:401:ASP:OD2	1:A:401:ASP:N	2.40	0.53
1:A:403:GLU:HB3	1:A:405:VAL:HG23	1.90	0.53
1:C:128:CYS:HB3	1:C:131:VAL:CG2	2.37	0.53
1:C:295:SER:HB3	1:C:322:SER:CB	2.37	0.53
1:G:83:GLY:HA2	1:G:101:LEU:H	1.73	0.53
1:G:207:VAL:HG12	1:G:208:LEU:N	2.23	0.53
1:A:178:GLN:HE22	1:A:391:VAL:N	2.06	0.53
1:A:259:GLN:OE1	1:C:456:GLU:O	2.27	0.53
1:A:363:THR:CB	1:A:366:THR:HG22	2.38	0.53
1:C:108:PRO:HA	1:C:530:ALA:HB1	1.90	0.53
1:C:128:CYS:HB3	1:C:131:VAL:HG21	1.88	0.53
2:D:580:SER:HB2	1:E:535:GLU:OE1	2.08	0.53
2:D:580:SER:N	1:E:535:GLU:OE1	2.41	0.53
1:E:296:ILE:HD12	1:E:321:PHE:CE2	2.43	0.53
1:E:537:VAL:O	1:E:540:ALA:HB3	2.09	0.53
2:F:605:LYS:HG3	2:F:610:VAL:HG22	1.89	0.53
1:G:109:ASP:O	1:G:111:LEU:N	2.41	0.53
1:A:281:ALA:CB	1:A:291:ARG:HB2	2.33	0.53
1:C:139:ASP:OD1	1:C:141:LYS:HG3	2.09	0.53
1:C:144:ARG:CZ	1:C:496:TRP:HZ2	2.22	0.53
1:E:116:VAL:HG21	1:E:522:VAL:HG12	1.88	0.53
1:E:139:ASP:C	1:E:141:LYS:H	2.08	0.53
1:E:348:PHE:CD1	1:E:373:SER:HB2	2.42	0.53
1:E:394:THR:O	1:E:395:PRO:C	2.46	0.53
1:E:428:GLU:OE1	1:E:548:THR:HG21	2.08	0.53
1:E:228:ARG:HE	1:E:452:MET:HE3	1.72	0.53
1:E:69:GLU:CA	1:E:78:SER:HA	2.31	0.53
1:G:160:LEU:HD11	1:G:201:TRP:CE3	2.43	0.53
1:G:296:ILE:HD13	1:G:321:PHE:CE2	2.43	0.53
1:G:442:HIS:O	1:G:443:TYR:HB3	2.06	0.53
1:G:461:PHE:HE1	1:G:480:ILE:HB	1.73	0.53
1:A:371:VAL:N	1:A:381:ILE:HG22	2.17	0.53
1:C:276:VAL:HG11	1:C:369:TYR:CD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:284:GLN:OE1	1:C:289:VAL:HG11	2.09	0.53
1:C:97:SER:C	1:C:99:LYS:N	2.61	0.53
1:E:220:ARG:NH1	1:G:221:THR:OG1	2.41	0.53
1:E:256:VAL:CG1	1:E:410:ILE:HG23	2.37	0.53
1:E:370:SER:HA	1:E:381:ILE:O	2.08	0.53
1:E:538:GLN:NE2	2:F:582:ILE:HG13	2.23	0.53
2:F:593:VAL:HG12	2:F:594:GLN:N	2.23	0.53
1:G:93:GLY:O	1:G:97:SER:CB	2.56	0.53
1:A:369:TYR:HE2	1:A:383:ARG:HB3	1.73	0.53
1:A:556:ASN:C	1:A:556:ASN:HD22	2.10	0.53
1:C:295:SER:HB3	1:C:322:SER:HB2	1.89	0.53
1:E:304:VAL:HG12	1:E:333:TRP:HB3	1.90	0.53
1:E:54:VAL:HG12	1:E:55:ALA:O	2.09	0.53
2:F:599:ILE:O	2:F:600:LEU:CG	2.47	0.53
1:G:176:PHE:HB2	1:G:197:PHE:CE1	2.44	0.53
1:A:460:GLY:HA2	1:A:481:VAL:HA	1.90	0.53
1:C:215:ALA:CB	1:C:218:GLY:HA2	2.33	0.53
1:C:265:ALA:HB2	1:C:404:ALA:H	1.74	0.53
1:C:292:ILE:HD11	1:C:325:ILE:CD1	2.37	0.53
1:C:297:THR:HG22	1:C:298:PRO:HG3	1.90	0.53
1:C:413:PRO:O	1:C:414:ALA:C	2.47	0.53
1:E:353:ASP:OD1	1:E:375:LEU:HB2	2.09	0.53
1:E:252:ALA:HB2	1:E:427:TYR:CB	2.38	0.53
1:E:556:ASN:CG	1:E:556:ASN:O	2.46	0.53
1:G:254:ILE:HD11	1:G:424:VAL:HG21	1.90	0.53
1:G:90:ASP:HB3	2:H:562:SER:OG	2.08	0.53
1:A:169:THR:HG22	1:A:172:THR:OG1	2.09	0.53
1:A:350:GLU:C	1:A:352:GLY:H	2.12	0.53
1:A:249:TRP:CD2	1:A:438:ALA:HB2	2.44	0.53
1:C:195:ALA:HB3	1:C:203:TYR:CE2	2.43	0.53
1:C:363:THR:HG23	1:C:366:THR:H	1.72	0.53
1:E:130:THR:HB	1:E:163:ILE:CG1	2.38	0.53
1:E:348:PHE:CD2	1:E:381:ILE:HD11	2.43	0.53
1:E:235:THR:HG1	1:E:439:TYR:HD1	1.56	0.53
1:G:477:LEU:HG	1:G:477:LEU:O	2.09	0.53
1:G:81:ALA:O	1:G:84:TRP:HB3	2.09	0.53
1:A:269:PHE:CD1	1:A:399:GLY:HA2	2.44	0.53
1:C:162:ASN:HA	1:C:200:GLY:O	2.09	0.53
1:E:194:TRP:HZ3	1:E:204:SER:N	2.06	0.53
1:G:262:THR:HA	1:G:406:ASN:HA	1.91	0.53
2:H:576:SER:O	2:H:577:ALA:C	2.46	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:120:GLN:HE22	1:A:211:THR:H	1.55	0.53
1:A:297:THR:OG1	1:A:298:PRO:CD	2.56	0.53
1:A:464:HIS:CE1	1:C:455:GLU:OE2	2.62	0.53
1:A:539:LEU:HD12	1:A:539:LEU:C	2.29	0.53
1:C:87:LYS:NZ	1:C:95:VAL:HG23	2.23	0.53
2:D:574:LYS:HD2	2:D:574:LYS:N	2.23	0.53
1:E:256:VAL:HG11	1:E:410:ILE:HG23	1.90	0.53
1:G:170:LEU:HA	1:G:173:ARG:HD3	1.91	0.53
1:G:194:TRP:HE3	1:G:194:TRP:HA	1.73	0.53
1:A:267:GLU:HA	1:A:267:GLU:OE1	2.08	0.52
1:A:83:GLY:O	1:A:87:LYS:HG2	2.09	0.52
1:A:542:ARG:HH21	2:B:583:LYS:HB2	1.73	0.52
1:C:424:VAL:O	1:C:427:TYR:HD2	1.91	0.52
1:C:443:TYR:O	1:C:445:MET:N	2.42	0.52
1:C:461:PHE:HB2	1:C:480:ILE:HB	1.90	0.52
2:F:578:THR:O	2:F:579:PRO:C	2.44	0.52
1:G:254:ILE:HG12	1:G:424:VAL:HG21	1.90	0.52
1:A:470:PRO:HA	1:A:473:ASN:OD1	2.09	0.52
1:A:91:PRO:HG2	1:A:233:GLY:HA3	1.92	0.52
1:C:93:GLY:O	1:C:97:SER:N	2.37	0.52
1:G:142:LEU:HG	1:G:165:ASN:HD21	1.73	0.52
1:G:286:SER:O	1:G:387:LYS:NZ	2.42	0.52
1:A:97:SER:HB3	1:A:99:LYS:HE2	1.91	0.52
1:C:93:GLY:O	1:C:97:SER:HB3	2.09	0.52
1:E:169:THR:CG2	1:E:170:LEU:N	2.72	0.52
1:E:253:HIS:HA	1:E:491:ALA:CB	2.40	0.52
1:G:92:ALA:HB3	1:G:556:ASN:HB2	1.91	0.52
1:A:152:ALA:CB	1:A:155:LEU:HB3	2.39	0.52
1:A:282:ILE:O	1:A:283:PHE:HB2	2.09	0.52
1:C:144:ARG:HH12	1:C:168:LEU:HB2	1.74	0.52
1:C:342:LEU:HD22	1:C:347:PRO:HA	1.91	0.52
1:E:147:PHE:CD2	1:E:159:ALA:HB2	2.44	0.52
1:E:40:GLN:O	1:E:41:ALA:HB2	2.09	0.52
1:E:44:LEU:HD11	1:E:63:MET:HE3	1.90	0.52
1:G:154:ARG:HA	1:G:211:THR:CG2	2.39	0.52
1:G:216:GLU:O	1:G:217:ILE:HG22	2.09	0.52
1:A:153:PHE:CE2	1:A:211:THR:HG23	2.45	0.52
1:C:412:MET:CE	1:C:415:LEU:HD21	2.39	0.52
1:C:461:PHE:HB3	1:C:463:PHE:CZ	2.45	0.52
1:C:92:ALA:O	1:C:96:GLU:HB2	2.10	0.52
1:E:332:VAL:HG22	1:E:358:SER:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:162:ASN:OD1	1:G:165:ASN:N	2.43	0.52
1:G:334:THR:OG1	1:G:335:PHE:N	2.43	0.52
1:A:144:ARG:N	1:A:165:ASN:HA	2.25	0.52
1:A:433:LYS:HG3	1:A:434:GLU:N	2.25	0.52
1:A:553:ALA:C	1:A:555:ASP:H	2.13	0.52
1:C:175:THR:O	1:C:178:GLN:HG3	2.08	0.52
1:C:276:VAL:H	1:C:391:VAL:HG13	1.74	0.52
1:C:375:LEU:HB3	1:C:378:SER:CB	2.39	0.52
1:C:236:PHE:CE1	1:C:493:VAL:HG21	2.44	0.52
1:C:522:VAL:O	1:C:524:GLN:N	2.42	0.52
1:G:287:ASN:HA	1:G:364:ALA:CA	2.39	0.52
1:G:366:THR:HG22	1:G:386:THR:CG2	2.39	0.52
1:G:504:ILE:HG22	1:G:506:CYS:SG	2.49	0.52
1:G:89:MET:SD	1:G:543:LEU:HD23	2.50	0.52
1:G:430:PHE:CE2	1:G:552:GLN:HG2	2.45	0.52
2:H:563:ALA:O	2:H:566:SER:HB2	2.10	0.52
1:A:113:ARG:N	1:E:443:TYR:OH	2.42	0.52
1:A:537:VAL:O	1:A:540:ALA:HB3	2.10	0.52
1:C:163:ILE:HG13	1:C:164:ASN:N	2.25	0.52
1:C:292:ILE:HD13	1:C:325:ILE:HG13	1.91	0.52
1:C:538:GLN:HE21	2:D:579:PRO:HB3	1.75	0.52
1:E:194:TRP:CE3	1:E:204:SER:HB2	2.44	0.52
1:E:359:MET:HA	1:E:369:TYR:HA	1.90	0.52
1:G:280:ASN:OD1	1:G:286:SER:HB2	2.09	0.52
1:G:86:TYR:CD1	1:G:99:LYS:HB3	2.45	0.52
1:A:419:GLU:HB3	1:A:423:ASN:HD22	1.71	0.52
1:E:297:THR:HG22	1:E:298:PRO:N	2.15	0.52
1:E:272:GLY:HA3	1:E:298:PRO:CD	2.39	0.52
1:E:363:THR:HB	1:E:366:THR:H	1.75	0.52
2:F:605:LYS:HG2	2:F:610:VAL:CG2	2.40	0.52
2:F:613:ARG:HD2	3:R:3:U:O2	2.09	0.52
1:G:301:VAL:HG12	1:G:319:LYS:C	2.30	0.52
1:A:146:SER:O	1:A:160:LEU:HD12	2.10	0.52
1:A:340:SER:HA	1:A:349:ALA:O	2.09	0.52
1:A:552:GLN:HB2	1:A:555:ASP:OD2	2.10	0.52
1:C:93:GLY:O	1:C:97:SER:CB	2.57	0.52
1:E:278:ALA:C	1:E:387:LYS:HA	2.30	0.52
1:E:485:GLU:O	1:E:485:GLU:HG3	2.10	0.52
2:F:564:LEU:C	2:F:564:LEU:CD2	2.78	0.52
1:G:179:THR:O	1:G:180:LEU:C	2.48	0.52
1:G:297:THR:CB	1:G:298:PRO:HD3	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:360:THR:HG22	1:G:361:THR:N	2.25	0.52
1:G:485:GLU:CD	1:G:487:ASN:HB2	2.30	0.52
1:A:188:ASP:C	1:A:189:LEU:HD12	2.31	0.52
1:A:297:THR:CB	1:A:298:PRO:CD	2.88	0.52
1:C:144:ARG:NH1	1:C:168:LEU:HB2	2.25	0.52
1:C:285:PRO:HB2	1:C:288:THR:HB	1.91	0.52
1:C:545:MET:HE1	1:C:546:GLU:CA	2.37	0.52
1:E:313:THR:HB	1:E:333:TRP:CD1	2.45	0.52
2:F:618:ILE:HG23	2:F:619:LYS:HG3	1.92	0.52
1:G:373:SER:HB2	1:G:378:SER:OG	2.10	0.52
1:G:278:ALA:CB	1:G:387:LYS:HA	2.35	0.52
1:G:74:SER:O	1:G:75:ILE:CG2	2.58	0.52
1:A:181:ASN:H	1:A:181:ASN:HD22	1.58	0.51
1:A:295:SER:HB3	1:A:322:SER:HB2	1.91	0.51
1:A:365:ASP:O	1:A:387:LYS:HB3	2.10	0.51
1:C:126:ILE:HG22	1:C:126:ILE:O	2.09	0.51
1:C:440:ILE:HD12	1:C:491:ALA:HB3	1.92	0.51
1:E:444:LYS:HD3	1:E:448:PRO:O	2.10	0.51
1:E:98:GLY:O	1:G:63:MET:HE3	2.10	0.51
1:G:76:ASP:N	1:G:76:ASP:OD1	2.43	0.51
2:H:584:GLY:O	2:H:588:GLN:HG3	2.10	0.51
1:A:293:VAL:HG22	1:A:324:GLU:HB2	1.91	0.51
1:C:146:SER:HB3	1:C:494:HIS:CE1	2.44	0.51
1:A:257:LYS:HG3	1:C:226:GLN:NE2	2.25	0.51
1:C:291:ARG:HH11	1:C:291:ARG:HG2	1.75	0.51
1:C:332:VAL:HG22	1:C:358:SER:CB	2.37	0.51
1:C:339:ALA:HB3	1:C:400:ILE:CD1	2.38	0.51
1:E:106:LYS:HG3	1:E:117:ASP:CG	2.31	0.51
1:G:453:THR:HG22	1:G:486:ASN:HD22	1.75	0.51
2:H:561:VAL:O	2:H:564:LEU:HG	2.10	0.51
1:A:144:ARG:H	1:A:165:ASN:HA	1.75	0.51
1:A:276:VAL:HG22	1:A:294:TRP:CG	2.44	0.51
1:A:87:LYS:NZ	1:A:95:VAL:HG23	2.26	0.51
1:C:145:VAL:HA	1:C:160:LEU:O	2.10	0.51
1:C:181:ASN:OD1	1:C:463:PHE:O	2.27	0.51
1:C:255:PRO:HB3	1:C:445:MET:SD	2.50	0.51
1:E:544:GLN:HA	1:E:544:GLN:OE1	2.09	0.51
1:G:284:GLN:O	1:G:286:SER:N	2.43	0.51
1:G:412:MET:HB2	1:G:463:PHE:HB3	1.91	0.51
1:G:87:LYS:NZ	1:G:95:VAL:CG1	2.74	0.51
1:A:461:PHE:CD1	1:A:480:ILE:O	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:137:PRO:C	1:C:139:ASP:H	2.14	0.51
1:E:150:PHE:O	1:E:152:ALA:N	2.40	0.51
1:E:158:ILE:CG2	1:E:159:ALA:N	2.72	0.51
1:C:475:LEU:CG	1:E:267:GLU:HB2	2.37	0.51
1:E:396:VAL:HG13	1:E:397:THR:N	2.25	0.51
1:E:95:VAL:HG13	1:G:63:MET:HB3	1.92	0.51
2:F:617:SER:O	2:F:618:ILE:C	2.49	0.51
1:G:126:ILE:CD1	1:G:126:ILE:H	2.22	0.51
1:G:270:SER:CB	1:G:402:THR:HG1	2.23	0.51
1:G:542:ARG:NH1	2:H:583:LYS:HB2	2.26	0.51
1:E:554:ASP:HA	1:G:56:PRO:HG3	1.92	0.51
1:A:289:VAL:HG12	1:A:290:ALA:N	2.26	0.51
1:A:422:THR:HG21	1:C:520:SER:HA	1.93	0.51
1:E:173:ARG:O	1:E:177:ILE:HG13	2.10	0.51
1:E:210:ASN:HA	1:E:213:ALA:HB3	1.92	0.51
2:F:605:LYS:NZ	2:F:610:VAL:HG13	2.26	0.51
1:C:141:LYS:HG2	1:G:136:LEU:HB3	1.93	0.51
1:G:192:GLY:HA2	1:G:205:ILE:O	2.11	0.51
1:G:250:VAL:O	1:G:493:VAL:HA	2.11	0.51
1:A:121:ARG:HA	1:A:508:THR:O	2.11	0.51
1:A:375:LEU:HB3	1:A:378:SER:CB	2.34	0.51
1:E:107:VAL:CG2	1:E:230:VAL:HG13	2.41	0.51
1:A:268:ARG:H	1:E:395:PRO:HB3	1.74	0.51
1:E:555:ASP:O	1:E:556:ASN:C	2.48	0.51
1:G:272:GLY:C	1:G:475:LEU:HD12	2.30	0.51
1:A:262:THR:OG1	1:E:262:THR:HG22	2.11	0.51
1:A:263:ILE:HG22	1:A:263:ILE:O	2.11	0.51
1:A:277:SER:HB3	1:A:391:VAL:HG12	1.93	0.51
1:E:132:SER:HB2	1:E:141:LYS:NZ	2.25	0.51
1:E:154:ARG:NH1	1:E:154:ARG:HG3	2.26	0.51
1:E:169:THR:H	1:E:172:THR:CB	2.24	0.51
1:E:369:TYR:O	1:E:382:VAL:HA	2.11	0.51
1:C:447:ASN:CG	1:E:451:GLU:HG2	2.31	0.51
1:G:330:ASN:OD1	1:G:330:ASN:N	2.43	0.51
1:G:523:GLY:O	1:G:526:ALA:HB3	2.10	0.51
1:G:72:ALA:HB3	1:G:75:ILE:O	2.10	0.51
1:A:113:ARG:HG2	1:E:547:LEU:O	2.11	0.51
2:B:578:THR:CB	2:B:581:VAL:HG23	2.40	0.51
1:G:191:THR:CG2	1:G:193:GLN:OE1	2.59	0.51
2:B:578:THR:HB	2:B:581:VAL:HB	1.93	0.51
1:C:176:PHE:O	1:C:179:THR:HB	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:365:ASP:O	1:C:386:THR:HG23	2.11	0.51
1:E:256:VAL:HG11	1:E:410:ILE:HG22	1.92	0.51
1:C:395:PRO:HB3	1:E:267:GLU:CG	2.40	0.51
1:E:466:PRO:C	1:E:468:TYR:H	2.14	0.51
1:G:281:ALA:CB	1:G:284:GLN:HG3	2.27	0.51
1:G:258:PRO:CB	1:G:410:ILE:HG12	2.39	0.51
1:C:149:SER:HA	1:C:157:PHE:HB3	1.91	0.51
1:C:354:THR:H	1:C:374:SER:CB	2.24	0.51
2:D:572:LEU:HA	2:D:575:SER:OG	2.11	0.51
1:E:286:SER:HB3	1:E:364:ALA:O	2.11	0.51
1:E:314:ASN:N	1:E:324:GLU:O	2.43	0.51
1:E:380:VAL:HG12	1:E:381:ILE:N	2.26	0.51
1:E:416:THR:O	1:E:418:GLU:N	2.44	0.51
1:E:418:GLU:HA	1:E:421:THR:HG21	1.92	0.51
1:E:55:ALA:HB1	1:E:56:PRO:CD	2.35	0.51
1:G:417:THR:O	1:G:421:THR:HG23	2.10	0.51
1:A:485:GLU:C	1:A:487:ASN:H	2.14	0.50
1:A:537:VAL:CG2	1:A:538:GLN:N	2.75	0.50
1:C:241:PRO:HG2	1:C:244:ILE:HG13	1.93	0.50
2:F:567:ILE:CD1	2:F:571:LEU:HD21	2.41	0.50
1:G:117:ASP:O	1:G:118:ALA:HB2	2.10	0.50
1:G:151:PRO:CB	1:G:488:PHE:HB2	2.41	0.50
1:G:203:TYR:CD1	1:G:203:TYR:C	2.83	0.50
1:G:226:GLN:O	1:G:227:PHE:HB3	2.10	0.50
1:G:122:PRO:O	1:G:508:THR:HG23	2.10	0.50
1:A:462:GLN:HG3	1:A:462:GLN:O	2.10	0.50
1:C:292:ILE:HD11	1:C:325:ILE:CG1	2.40	0.50
1:E:156:ASN:HB3	1:E:206:TYR:O	2.11	0.50
1:E:528:THR:HG22	1:E:529:GLY:O	2.11	0.50
1:E:542:ARG:HD2	2:F:582:ILE:HG22	1.93	0.50
1:G:166:GLU:HB3	1:G:201:TRP:HZ2	1.75	0.50
1:G:232:LYS:O	1:G:442:HIS:HD2	1.95	0.50
1:G:302:ALA:HB2	1:G:338:PRO:HD3	1.94	0.50
2:H:578:THR:O	2:H:579:PRO:C	2.50	0.50
1:A:128:CYS:HB2	1:A:143:TRP:CE2	2.46	0.50
1:A:280:ASN:N	1:A:387:LYS:HD3	2.26	0.50
1:C:122:PRO:HG3	1:C:209:PRO:CD	2.41	0.50
1:C:182:ASN:OD1	1:C:474:ALA:N	2.33	0.50
1:C:299:LEU:HD12	1:C:300:PRO:HD2	1.92	0.50
1:C:405:VAL:HG11	1:C:477:LEU:HD22	1.93	0.50
1:A:113:ARG:HD3	1:E:547:LEU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:414:ALA:CB	1:G:420:VAL:HG22	2.40	0.50
1:G:71:CYS:HA	1:G:76:ASP:HB3	1.93	0.50
1:G:87:LYS:NZ	1:G:95:VAL:HG11	2.26	0.50
1:A:268:ARG:HH11	1:A:268:ARG:HG3	1.75	0.50
1:A:439:TYR:HB2	1:A:553:ALA:HA	1.94	0.50
1:C:239:ASN:HB3	1:C:503:THR:O	2.11	0.50
1:C:498:ILE:HD13	1:C:504:ILE:HD11	1.93	0.50
1:E:287:ASN:HB3	1:E:364:ALA:HB2	1.93	0.50
2:F:572:LEU:HD12	2:F:572:LEU:O	2.11	0.50
1:G:248:TRP:HB2	1:G:431:LEU:CD2	2.41	0.50
1:G:82:VAL:O	1:G:85:PHE:HB3	2.11	0.50
3:R:3:U:C5	3:R:4:U:C5	2.99	0.50
1:A:154:ARG:HG2	1:A:482:ASP:OD1	2.11	0.50
1:A:170:LEU:HG	1:A:174:ASN:OD1	2.11	0.50
1:E:276:VAL:HG22	1:E:294:TRP:CD1	2.46	0.50
1:E:306:LEU:HD13	1:E:311:GLY:CA	2.41	0.50
1:G:207:VAL:HG21	1:G:212:TYR:CD1	2.47	0.50
1:G:547:LEU:HD23	1:G:547:LEU:N	2.26	0.50
1:A:248:TRP:CZ3	1:A:250:VAL:HG23	2.46	0.50
1:A:319:LYS:HE3	1:A:320:PHE:CE1	2.47	0.50
1:C:400:ILE:HG22	1:C:401:ASP:H	1.77	0.50
1:A:449:VAL:CG2	1:C:449:VAL:HG11	2.41	0.50
2:D:564:LEU:N	2:D:564:LEU:HD13	2.27	0.50
1:E:119:GLU:OE2	1:E:509:TYR:CD2	2.64	0.50
2:F:601:GLU:CD	2:F:601:GLU:N	2.65	0.50
1:G:232:LYS:HD2	1:G:510:ASP:OD2	2.12	0.50
1:G:133:GLU:N	1:G:283:PHE:CZ	2.75	0.50
1:A:189:LEU:CD1	1:A:189:LEU:N	2.72	0.50
1:A:298:PRO:HB2	1:A:398:VAL:HG21	1.94	0.50
1:A:545:MET:C	1:A:547:LEU:H	2.15	0.50
1:C:207:VAL:CG1	1:C:212:TYR:HB2	2.39	0.50
1:E:214:MET:HE3	1:G:521:THR:HG22	1.93	0.50
1:G:162:ASN:ND2	1:G:166:GLU:HB2	2.26	0.50
1:G:185:ASN:O	1:G:188:ASP:HB2	2.11	0.50
1:A:120:GLN:OE1	1:A:208:LEU:HB3	2.12	0.50
1:A:278:ALA:O	1:A:388:GLY:N	2.36	0.50
1:C:297:THR:HG22	1:C:298:PRO:CG	2.41	0.50
2:B:579:PRO:HG2	1:C:535:GLU:OE2	2.11	0.50
2:D:564:LEU:C	2:D:567:ILE:HG22	2.32	0.50
1:E:134:SER:HB2	1:E:139:ASP:OD2	2.12	0.50
1:E:274:MET:CE	1:E:294:TRP:HE1	2.24	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:226:GLN:NE2	1:E:452:MET:HB3	2.27	0.50
1:E:229:LYS:CB	1:E:485:GLU:HG2	2.35	0.50
1:E:504:ILE:HG22	1:E:506:CYS:SG	2.51	0.50
1:E:536:VAL:O	1:E:537:VAL:C	2.49	0.50
1:G:116:VAL:HG11	1:G:522:VAL:CG1	2.41	0.50
1:G:257:LYS:HE2	1:G:446:ASN:CB	2.41	0.50
1:G:274:MET:CE	1:G:296:ILE:HD11	2.41	0.50
1:A:307:THR:HG23	1:A:308:THR:HG23	1.94	0.50
1:A:90:ASP:OD1	1:A:93:GLY:N	2.40	0.50
1:C:191:THR:C	1:C:193:GLN:H	2.14	0.50
1:C:209:PRO:O	1:C:212:TYR:N	2.45	0.50
1:C:77:PRO:HA	1:C:533:GLU:OE2	2.12	0.50
1:C:553:ALA:O	1:C:555:ASP:N	2.45	0.50
2:D:567:ILE:CG2	2:D:568:GLY:N	2.75	0.50
2:D:581:VAL:O	2:D:585:ILE:CD1	2.54	0.50
1:E:190:GLY:C	1:E:192:GLY:N	2.64	0.50
1:E:275:THR:CG2	1:E:478:ARG:NH1	2.74	0.50
1:E:248:TRP:CA	1:E:431:LEU:HA	2.40	0.50
1:G:163:ILE:C	1:G:165:ASN:H	2.14	0.50
1:G:185:ASN:CG	1:G:318:GLY:HA3	2.32	0.50
1:G:248:TRP:CZ2	1:G:429:GLN:HB2	2.47	0.50
1:G:552:GLN:C	1:G:554:ASP:H	2.14	0.50
1:G:54:VAL:HG12	1:G:55:ALA:O	2.12	0.50
1:G:84:TRP:CE3	1:G:108:PRO:HD2	2.47	0.50
1:A:131:VAL:HG21	1:A:500:GLN:HB3	1.94	0.49
1:A:274:MET:HG3	1:A:294:TRP:HE1	1.77	0.49
1:A:447:ASN:HD21	1:A:451:GLU:HB2	1.77	0.49
1:A:498:ILE:HG22	1:A:499:SER:N	2.27	0.49
1:C:522:VAL:C	1:C:524:GLN:H	2.15	0.49
1:C:545:MET:HE2	1:C:545:MET:O	2.12	0.49
1:G:177:ILE:O	1:G:178:GLN:C	2.50	0.49
1:G:231:TYR:CE2	1:G:511:GLY:HA3	2.47	0.49
1:G:48:LEU:CD2	1:G:54:VAL:HG21	2.42	0.49
1:A:553:ALA:C	1:A:555:ASP:N	2.65	0.49
1:C:299:LEU:HD11	1:C:338:PRO:HD2	1.94	0.49
2:D:571:LEU:N	2:D:571:LEU:HD23	2.27	0.49
1:E:227:PHE:CD1	1:E:228:ARG:N	2.80	0.49
1:E:227:PHE:CD1	1:E:227:PHE:C	2.85	0.49
1:E:516:THR:HG21	1:E:523:GLY:HA2	1.94	0.49
1:G:218:GLY:HA3	1:G:221:THR:OG1	2.11	0.49
1:G:276:VAL:C	1:G:391:VAL:HG13	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:316:THR:HG21	1:G:322:SER:HB3	1.94	0.49
1:G:217:ILE:HG23	1:G:319:LYS:HZ1	1.76	0.49
1:G:362:ILE:O	1:G:362:ILE:HG13	2.11	0.49
1:A:146:SER:HB2	1:A:160:LEU:CD1	2.41	0.49
1:A:230:VAL:O	1:A:231:TYR:HB3	2.12	0.49
1:A:248:TRP:HZ3	1:A:250:VAL:CG2	2.25	0.49
1:A:406:ASN:N	1:A:406:ASN:OD1	2.45	0.49
1:C:129:PRO:HG2	1:C:163:ILE:HG23	1.94	0.49
1:C:182:ASN:HA	1:C:478:ARG:HD2	1.94	0.49
2:D:569:LEU:HD13	2:D:569:LEU:C	2.31	0.49
2:D:582:ILE:HA	2:D:585:ILE:HD13	1.95	0.49
1:E:144:ARG:HG2	1:E:144:ARG:NH1	2.25	0.49
1:E:185:ASN:ND2	1:E:320:PHE:O	2.36	0.49
1:G:147:PHE:O	1:G:492:VAL:HA	2.12	0.49
1:G:186:TRP:CE3	1:G:480:ILE:HG23	2.47	0.49
1:G:447:ASN:HD21	1:G:449:VAL:CG1	2.19	0.49
1:G:39:GLU:O	1:G:71:CYS:N	2.46	0.49
1:A:136:LEU:HD23	1:A:137:PRO:HD2	1.93	0.49
1:A:119:GLU:HA	1:A:511:GLY:HA2	1.94	0.49
1:E:152:ALA:HB3	1:E:155:LEU:HB3	1.94	0.49
1:E:165:ASN:HD21	1:E:497:GLY:HA2	1.74	0.49
1:E:215:ALA:HB3	1:E:221:THR:HB	1.93	0.49
1:E:459:GLY:O	1:E:481:VAL:HA	2.13	0.49
1:E:470:PRO:O	1:E:473:ASN:N	2.38	0.49
1:E:142:LEU:HA	1:E:498:ILE:O	2.13	0.49
1:C:428:GLU:HG3	1:E:59:GLY:O	2.12	0.49
1:G:125:THR:HG22	1:G:125:THR:O	2.13	0.49
1:G:493:VAL:HG12	1:G:495:PHE:CE1	2.47	0.49
1:A:97:SER:C	1:A:99:LYS:H	2.16	0.49
1:C:369:TYR:CD1	1:C:369:TYR:C	2.85	0.49
1:E:151:PRO:O	1:E:485:GLU:HB3	2.12	0.49
1:E:230:VAL:HG12	1:E:231:TYR:CD2	2.44	0.49
1:A:516:THR:CB	1:E:423:ASN:HB3	2.33	0.49
1:E:78:SER:O	1:E:81:ALA:N	2.46	0.49
1:G:89:MET:HE1	1:G:544:GLN:H	1.76	0.49
2:H:564:LEU:CD2	2:H:564:LEU:H	2.14	0.49
1:A:87:LYS:HB3	1:A:231:TYR:CE2	2.48	0.49
1:A:443:TYR:CE2	1:C:113:ARG:HD3	2.48	0.49
1:C:106:LYS:HE2	1:C:528:THR:O	2.13	0.49
1:C:287:ASN:HA	1:C:363:THR:O	2.12	0.49
1:C:396:VAL:CG1	1:C:397:THR:N	2.62	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:563:ALA:C	2:D:565:ALA:H	2.16	0.49
1:E:241:PRO:C	1:E:243:LEU:N	2.64	0.49
1:E:54:VAL:CG1	1:E:55:ALA:N	2.75	0.49
1:G:225:THR:HB	1:G:515:THR:O	2.13	0.49
1:G:281:ALA:O	1:G:284:GLN:HB2	2.13	0.49
1:G:74:SER:C	1:G:75:ILE:HG23	2.33	0.49
1:G:87:LYS:HZ1	1:G:95:VAL:CG1	2.26	0.49
1:A:157:PHE:CD1	1:A:157:PHE:C	2.86	0.49
1:A:160:LEU:N	1:A:160:LEU:HD12	2.26	0.49
1:A:298:PRO:HB2	1:A:398:VAL:CG2	2.43	0.49
1:C:306:LEU:HD13	1:C:311:GLY:CA	2.39	0.49
1:E:214:MET:HG3	1:G:521:THR:HG22	1.94	0.49
1:E:231:TYR:HA	1:E:488:PHE:CZ	2.48	0.49
1:E:485:GLU:HG3	1:E:488:PHE:H	1.78	0.49
1:G:153:PHE:O	1:G:208:LEU:HD12	2.13	0.49
1:A:128:CYS:SG	1:A:131:VAL:HG23	2.52	0.49
1:A:169:THR:CG2	1:A:172:THR:HG23	2.42	0.49
1:C:312:GLY:CA	1:C:326:ASP:OD1	2.61	0.49
2:D:561:VAL:HA	2:D:564:LEU:CD2	2.42	0.49
1:C:75:ILE:HD11	2:D:572:LEU:HG	1.94	0.49
1:E:248:TRP:HZ3	1:E:250:VAL:CG2	2.25	0.49
1:C:259:GLN:HB2	1:E:455:GLU:HG2	1.95	0.49
1:G:276:VAL:HG22	1:G:294:TRP:HD1	1.78	0.49
1:G:363:THR:CG2	1:G:364:ALA:H	2.21	0.49
1:A:148:ILE:HA	1:A:492:VAL:HG12	1.95	0.49
2:B:572:LEU:C	2:B:572:LEU:HD12	2.33	0.49
1:C:227:PHE:HA	1:C:514:GLY:HA2	1.95	0.49
1:E:107:VAL:HG22	1:E:230:VAL:HG13	1.95	0.49
1:E:253:HIS:ND1	1:E:491:ALA:CB	2.76	0.49
1:E:90:ASP:HB2	2:F:561:VAL:CB	2.37	0.49
2:F:607:ILE:O	2:F:608:GLY:C	2.50	0.49
1:G:138:LEU:C	1:G:140:GLY:H	2.17	0.49
1:G:154:ARG:HA	1:G:211:THR:HG22	1.95	0.49
1:G:262:THR:CG2	1:G:263:ILE:N	2.75	0.49
1:G:88:TYR:CE1	1:G:544:GLN:NE2	2.80	0.49
1:A:370:SER:HB3	1:A:382:VAL:HG13	1.95	0.49
1:A:396:VAL:CG1	1:A:397:THR:N	2.75	0.49
1:A:485:GLU:CG	1:A:488:PHE:H	2.20	0.49
2:B:565:ALA:O	2:B:568:GLY:N	2.46	0.49
1:C:443:TYR:CD2	1:E:113:ARG:NH1	2.80	0.49
1:E:265:ALA:HB2	1:E:404:ALA:CB	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:449:VAL:HG12	1:E:450:PHE:N	2.27	0.49
1:E:452:MET:O	1:E:453:THR:C	2.50	0.49
1:E:297:THR:HA	1:E:478:ARG:HH21	1.77	0.49
1:G:273:SER:HB2	1:G:393:ILE:HG22	1.93	0.49
1:G:296:ILE:HD12	1:G:296:ILE:N	2.27	0.49
2:H:588:GLN:C	2:H:590:VAL:H	2.15	0.49
1:A:120:GLN:NE2	1:A:211:THR:H	2.11	0.48
1:A:536:VAL:O	1:A:537:VAL:C	2.50	0.48
1:A:545:MET:HE1	1:A:546:GLU:HB3	1.95	0.48
1:C:146:SER:CB	1:C:494:HIS:ND1	2.76	0.48
1:C:427:TYR:OH	1:G:121:ARG:HD2	2.13	0.48
1:C:87:LYS:O	1:C:89:MET:N	2.46	0.48
1:E:194:TRP:HE3	1:E:194:TRP:HA	1.77	0.48
1:E:195:ALA:HB3	1:E:203:TYR:CE2	2.47	0.48
1:E:229:LYS:HB2	1:E:485:GLU:CG	2.38	0.48
1:E:380:VAL:CG1	1:E:381:ILE:N	2.76	0.48
1:G:248:TRP:NE1	1:G:429:GLN:CG	2.72	0.48
1:G:486:ASN:O	1:G:486:ASN:CG	2.50	0.48
1:G:113:ARG:O	1:G:528:THR:HA	2.12	0.48
1:A:148:ILE:HG12	1:A:492:VAL:CG1	2.43	0.48
1:A:363:THR:OG1	1:A:366:THR:HG22	2.13	0.48
1:A:454:GLY:O	1:A:456:GLU:N	2.46	0.48
1:C:193:GLN:O	1:C:204:SER:HB3	2.13	0.48
1:C:241:PRO:O	1:C:244:ILE:N	2.47	0.48
1:C:385:VAL:HG22	1:C:392:SER:HB3	1.95	0.48
2:D:560:THR:O	2:D:564:LEU:HD22	2.13	0.48
1:E:178:GLN:HE22	1:E:391:VAL:H	1.60	0.48
1:E:253:HIS:NE2	1:E:441:VAL:O	2.46	0.48
1:G:279:SER:OG	1:G:280:ASN:N	2.46	0.48
1:G:442:HIS:N	1:G:442:HIS:CD2	2.81	0.48
1:A:257:LYS:O	1:C:455:GLU:HB3	2.12	0.48
2:B:566:SER:O	2:B:570:GLY:N	2.42	0.48
1:C:262:THR:HB	1:E:262:THR:CG2	2.42	0.48
1:E:111:LEU:HD12	1:E:111:LEU:O	2.13	0.48
1:E:234:ILE:HG12	1:E:508:THR:HB	1.95	0.48
1:E:341:ILE:HA	1:E:397:THR:O	2.13	0.48
1:G:107:VAL:CG2	1:G:230:VAL:HG13	2.44	0.48
1:G:343:ALA:HB2	1:G:396:VAL:HG13	1.94	0.48
1:E:214:MET:HG3	1:G:521:THR:CG2	2.43	0.48
1:A:289:VAL:HG13	1:A:327:GLY:C	2.34	0.48
1:A:297:THR:HB	1:A:298:PRO:HD3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:415:LEU:HD12	1:A:415:LEU:N	2.29	0.48
1:A:424:VAL:HG22	1:C:114:TYR:CZ	2.48	0.48
1:C:299:LEU:HD23	1:C:321:PHE:HB3	1.94	0.48
1:C:436:GLY:N	1:C:554:ASP:OD1	2.46	0.48
1:C:90:ASP:OD1	1:C:93:GLY:N	2.37	0.48
1:E:416:THR:O	1:E:417:THR:C	2.51	0.48
1:G:143:TRP:N	1:G:143:TRP:CD1	2.79	0.48
1:E:329:VAL:HG13	1:E:359:MET:O	2.13	0.48
1:G:193:GLN:O	1:G:193:GLN:HG3	2.13	0.48
1:G:277:SER:CA	1:G:391:VAL:HG13	2.44	0.48
1:E:98:GLY:C	1:G:63:MET:HE3	2.34	0.48
1:A:470:PRO:HB2	1:C:403:GLU:CB	2.44	0.48
2:D:561:VAL:CA	2:D:564:LEU:HD22	2.43	0.48
1:E:274:MET:HG3	1:E:296:ILE:CG1	2.43	0.48
1:E:474:ALA:HB1	1:E:478:ARG:HD2	1.94	0.48
2:F:577:ALA:HA	2:F:582:ILE:HD11	1.94	0.48
1:G:178:GLN:HG3	1:G:179:THR:N	2.29	0.48
1:G:230:VAL:O	1:G:231:TYR:HB3	2.13	0.48
1:G:253:HIS:CE1	1:G:442:HIS:HA	2.49	0.48
1:G:78:SER:O	1:G:81:ALA:HB3	2.13	0.48
1:A:122:PRO:HB3	1:A:209:PRO:HG3	1.96	0.48
1:A:213:ALA:O	1:A:215:ALA:N	2.47	0.48
1:C:285:PRO:O	1:C:287:ASN:N	2.43	0.48
1:C:448:PRO:HG3	1:E:449:VAL:HG12	1.94	0.48
1:E:182:ASN:O	1:E:183:ILE:C	2.50	0.48
1:E:538:GLN:O	1:E:539:LEU:C	2.52	0.48
1:G:316:THR:HG21	1:G:322:SER:CB	2.44	0.48
1:G:81:ALA:O	1:G:84:TRP:N	2.46	0.48
1:A:375:LEU:HD12	1:A:376:THR:N	2.29	0.48
1:A:180:LEU:O	1:A:479:GLY:HA2	2.13	0.48
1:A:510:ASP:C	1:A:510:ASP:OD1	2.52	0.48
1:C:233:GLY:HA2	1:C:440:ILE:O	2.13	0.48
1:E:87:LYS:HG3	1:E:104:PHE:HB2	1.95	0.48
1:G:181:ASN:OD1	1:G:181:ASN:N	2.47	0.48
1:G:146:SER:HB3	1:G:494:HIS:ND1	2.28	0.48
1:G:108:PRO:HB2	1:G:533:GLU:HB2	1.96	0.48
2:H:566:SER:O	2:H:567:ILE:C	2.52	0.48
1:A:232:LYS:HG3	1:A:510:ASP:HB2	1.96	0.48
1:A:238:PHE:CD1	1:A:432:CYS:HB3	2.47	0.48
1:A:267:GLU:HG2	1:E:475:LEU:CG	2.44	0.48
1:C:352:GLY:O	1:C:353:ASP:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:187:ARG:HG3	1:E:212:TYR:HE1	1.79	0.48
1:E:534:ASP:O	1:E:535:GLU:C	2.51	0.48
2:F:564:LEU:O	2:F:567:ILE:CG2	2.51	0.48
1:A:533:GLU:OE2	1:A:533:GLU:HA	2.14	0.48
1:C:142:LEU:HD21	1:G:501:SER:O	2.14	0.48
1:C:172:THR:HG21	1:C:201:TRP:CE2	2.49	0.48
1:C:412:MET:HE2	1:C:415:LEU:HD21	1.94	0.48
1:C:427:TYR:C	1:C:427:TYR:CD1	2.87	0.48
1:E:157:PHE:CE2	1:E:206:TYR:CD1	3.02	0.48
1:E:298:PRO:HG2	1:E:398:VAL:CG2	2.44	0.48
1:E:396:VAL:HG13	1:E:397:THR:H	1.79	0.48
2:F:561:VAL:O	2:F:564:LEU:HB3	2.12	0.48
1:G:341:ILE:HG23	1:G:396:VAL:HG11	1.96	0.48
1:G:543:LEU:O	1:G:547:LEU:CD2	2.62	0.48
1:G:251:GLY:O	1:G:550:VAL:HG21	2.13	0.48
1:A:113:ARG:CZ	1:E:443:TYR:CD2	2.97	0.47
1:A:128:CYS:O	1:A:130:THR:N	2.47	0.47
1:A:473:ASN:O	1:A:474:ALA:O	2.31	0.47
1:A:126:ILE:HB	1:A:504:ILE:O	2.14	0.47
1:A:543:LEU:O	1:A:544:GLN:C	2.50	0.47
1:C:131:VAL:HG12	1:C:132:SER:N	2.29	0.47
1:C:238:PHE:HB2	1:C:437:GLY:HA2	1.95	0.47
1:C:87:LYS:HE2	1:C:95:VAL:HG23	1.95	0.47
1:E:120:GLN:O	1:E:122:PRO:HD2	2.13	0.47
1:E:157:PHE:N	1:E:157:PHE:CD2	2.82	0.47
1:E:350:GLU:O	1:E:351:GLU:C	2.52	0.47
1:E:92:ALA:HB3	1:E:439:TYR:CE1	2.48	0.47
1:E:447:ASN:ND2	1:E:449:VAL:H	2.12	0.47
2:F:596:ASN:CB	2:F:597:PRO:CD	2.92	0.47
1:G:249:TRP:CD2	1:G:438:ALA:HB2	2.49	0.47
1:G:289:VAL:HA	1:G:327:GLY:O	2.14	0.47
1:G:381:ILE:HG23	1:G:383:ARG:NH2	2.27	0.47
1:G:142:LEU:HB2	1:G:498:ILE:O	2.14	0.47
2:H:578:THR:CG2	2:H:581:VAL:HG23	2.44	0.47
1:A:162:ASN:CG	1:A:166:GLU:HB2	2.34	0.47
1:A:251:GLY:O	1:A:550:VAL:HG21	2.13	0.47
1:A:449:VAL:HG23	1:C:449:VAL:HG11	1.96	0.47
1:E:251:GLY:C	1:E:550:VAL:HG21	2.33	0.47
1:E:313:THR:HB	1:E:325:ILE:HG22	1.96	0.47
1:E:522:VAL:O	1:E:524:GLN:N	2.47	0.47
1:G:290:ALA:HB2	1:G:387:LYS:CE	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:291:ARG:O	1:G:291:ARG:HD2	2.14	0.47
1:G:536:VAL:O	1:G:537:VAL:C	2.52	0.47
1:A:363:THR:CB	1:A:366:THR:H	2.26	0.47
1:A:413:PRO:O	1:A:414:ALA:C	2.52	0.47
1:A:244:ILE:CD1	1:A:501:SER:HB2	2.38	0.47
1:C:177:ILE:O	1:C:178:GLN:C	2.51	0.47
1:E:194:TRP:CZ3	1:E:204:SER:N	2.82	0.47
1:E:270:SER:OG	1:E:402:THR:OG1	2.30	0.47
1:E:302:ALA:HB2	1:E:338:PRO:HG3	1.95	0.47
1:E:266:ALA:CB	1:E:402:THR:HB	2.35	0.47
1:E:297:THR:CG2	1:E:476:GLY:H	2.25	0.47
2:F:613:ARG:O	2:F:616:GLY:N	2.47	0.47
1:G:485:GLU:HG3	1:G:487:ASN:H	1.80	0.47
1:G:56:PRO:HG2	1:G:57:SER:N	2.27	0.47
1:A:252:ALA:HB2	1:A:427:TYR:CB	2.39	0.47
1:A:301:VAL:HA	1:A:320:PHE:O	2.15	0.47
1:A:344:GLU:C	1:A:346:GLU:H	2.16	0.47
1:A:235:THR:HG21	1:A:507:LYS:HE2	1.95	0.47
1:A:230:VAL:HB	1:A:511:GLY:O	2.14	0.47
1:C:255:PRO:HB2	1:E:226:GLN:OE1	2.14	0.47
1:E:185:ASN:O	1:E:188:ASP:OD1	2.32	0.47
1:E:230:VAL:O	1:E:231:TYR:HB3	2.15	0.47
1:G:116:VAL:HG22	1:G:526:ALA:HB2	1.97	0.47
1:G:153:PHE:HB2	1:G:227:PHE:CZ	2.50	0.47
1:G:533:GLU:O	1:G:537:VAL:HG23	2.14	0.47
1:G:75:ILE:HG22	1:G:535:GLU:HG2	1.96	0.47
1:A:443:TYR:OH	1:C:112:LEU:HA	2.14	0.47
1:A:495:PHE:CE1	1:A:504:ILE:HD13	2.49	0.47
1:C:162:ASN:OD1	1:C:166:GLU:O	2.32	0.47
1:C:365:ASP:O	1:C:386:THR:HA	2.15	0.47
1:E:278:ALA:HA	1:E:292:ILE:CG2	2.40	0.47
1:E:313:THR:CA	1:E:325:ILE:HG22	2.43	0.47
1:E:112:LEU:HD21	1:E:452:MET:SD	2.54	0.47
1:G:262:THR:HG22	1:G:263:ILE:N	2.28	0.47
1:G:142:LEU:CD1	1:G:497:GLY:HA2	2.42	0.47
1:A:121:ARG:N	1:A:122:PRO:CD	2.77	0.47
1:A:210:ASN:O	1:A:213:ALA:HB3	2.14	0.47
2:B:564:LEU:O	2:B:567:ILE:CG2	2.61	0.47
1:C:241:PRO:O	1:C:243:LEU:N	2.48	0.47
1:C:357:PHE:HD1	1:C:371:VAL:HG13	1.80	0.47
1:C:553:ALA:C	1:C:555:ASP:H	2.16	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:105:SER:OG	1:E:117:ASP:OD2	2.28	0.47
1:E:198:ALA:HB1	1:E:199:PRO:CD	2.37	0.47
1:E:239:ASN:HB3	1:E:503:THR:HG23	1.95	0.47
1:E:450:PHE:N	1:E:450:PHE:CD2	2.82	0.47
1:E:453:THR:HG21	1:E:484:PHE:O	2.13	0.47
2:F:614:LEU:HA	2:F:614:LEU:HD23	1.80	0.47
1:G:109:ASP:CA	1:G:532:GLU:HA	2.44	0.47
1:G:440:ILE:HG22	1:G:550:VAL:HG22	1.96	0.47
1:A:231:TYR:C	1:A:231:TYR:CD1	2.88	0.47
1:A:244:ILE:C	1:A:246:GLN:HG3	2.34	0.47
1:A:280:ASN:H	1:A:387:LYS:HD3	1.78	0.47
1:A:424:VAL:CG1	1:A:427:TYR:HB3	2.44	0.47
1:A:235:THR:CG2	1:A:507:LYS:HB3	2.44	0.47
1:A:89:MET:HE1	1:A:543:LEU:CB	2.45	0.47
1:C:108:PRO:HA	1:C:530:ALA:HB3	1.97	0.47
1:C:222:ASP:CG	1:C:522:VAL:HG23	2.35	0.47
1:C:292:ILE:HD11	1:C:325:ILE:HG13	1.97	0.47
1:C:346:GLU:OE1	1:C:347:PRO:HD2	2.15	0.47
1:C:359:MET:HA	1:C:368:VAL:O	2.14	0.47
1:C:403:GLU:HG3	1:C:403:GLU:O	2.13	0.47
1:C:418:GLU:HG2	1:C:419:GLU:N	2.30	0.47
1:C:232:LYS:HG2	1:C:442:HIS:CE1	2.50	0.47
1:C:227:PHE:HA	1:C:513:GLU:O	2.14	0.47
1:E:134:SER:CB	1:E:139:ASP:HB2	2.44	0.47
1:E:162:ASN:OD1	1:E:166:GLU:HB2	2.15	0.47
1:E:210:ASN:CG	1:G:520:SER:O	2.53	0.47
1:E:365:ASP:OD1	1:E:365:ASP:N	2.47	0.47
1:E:116:VAL:HB	1:E:526:ALA:HB2	1.97	0.47
2:F:598:GLY:O	2:F:599:ILE:HG13	2.14	0.47
1:G:126:ILE:HG12	1:G:147:PHE:CE1	2.49	0.47
1:G:297:THR:HG21	1:G:476:GLY:N	2.29	0.47
1:G:265:ALA:HB2	1:G:404:ALA:N	2.29	0.47
1:A:87:LYS:NZ	1:A:95:VAL:CG2	2.77	0.47
1:C:202:TYR:N	1:C:202:TYR:CD1	2.82	0.47
1:C:303:THR:O	1:C:335:PHE:HB2	2.15	0.47
1:E:162:ASN:HB2	1:E:201:TRP:CE2	2.50	0.47
1:E:412:MET:HG2	1:E:463:PHE:HB3	1.97	0.47
1:E:534:ASP:HA	1:E:537:VAL:CG2	2.45	0.47
1:G:306:LEU:HD12	1:G:332:VAL:O	2.15	0.47
1:G:232:LYS:HA	1:G:509:TYR:O	2.15	0.47
1:A:307:THR:N	1:A:332:VAL:O	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:360:THR:HB	1:A:368:VAL:HB	1.95	0.47
1:C:350:GLU:O	1:C:351:GLU:C	2.53	0.47
1:C:435:SER:C	1:C:437:GLY:H	2.11	0.47
1:C:544:GLN:C	1:C:546:GLU:N	2.65	0.47
1:G:297:THR:HG22	1:G:298:PRO:CD	2.45	0.47
1:G:350:GLU:HG3	1:G:353:ASP:OD2	2.15	0.47
1:G:539:LEU:O	1:G:543:LEU:HB2	2.14	0.47
1:A:187:ARG:HD3	1:A:212:TYR:CE1	2.50	0.47
1:A:243:LEU:HD11	1:A:244:ILE:HG23	1.96	0.47
1:A:461:PHE:CE1	1:A:480:ILE:O	2.68	0.47
1:A:223:SER:O	1:A:516:THR:HG23	2.15	0.47
1:C:273:SER:N	1:C:297:THR:HB	2.23	0.47
1:E:180:LEU:HD12	1:E:180:LEU:H	1.80	0.47
1:E:181:ASN:OD1	1:E:462:GLN:HA	2.14	0.47
1:E:304:VAL:HG21	1:E:323:VAL:HG22	1.97	0.47
1:G:284:GLN:CD	1:G:289:VAL:HG11	2.35	0.47
1:E:95:VAL:O	1:G:47:GLN:HG3	2.15	0.47
1:G:81:ALA:O	1:G:82:VAL:C	2.51	0.47
1:G:95:VAL:HG22	1:G:96:GLU:N	2.30	0.47
2:H:578:THR:O	2:H:582:ILE:HG13	2.15	0.47
1:C:475:LEU:HD21	1:E:267:GLU:CA	2.45	0.47
1:E:100:ALA:C	1:E:101:LEU:HD23	2.35	0.47
1:E:444:LYS:HD3	1:E:447:ASN:O	2.15	0.47
2:D:564:LEU:HD12	1:E:50:PRO:HG2	1.96	0.47
1:E:95:VAL:HG11	1:G:61:GLY:O	2.15	0.47
1:G:288:THR:O	1:G:288:THR:HG22	2.15	0.47
1:G:245:ASP:OD2	1:G:433:LYS:HG2	2.15	0.47
1:G:538:GLN:OE1	2:H:579:PRO:HA	2.15	0.47
1:A:329:VAL:HA	1:A:362:ILE:HD11	1.97	0.46
2:B:588:GLN:C	2:B:590:VAL:N	2.68	0.46
1:C:265:ALA:HB2	1:C:404:ALA:HB2	1.97	0.46
1:E:154:ARG:NH1	1:E:482:ASP:OD2	2.48	0.46
2:D:593:VAL:O	1:E:43:ILE:HA	2.15	0.46
1:G:424:VAL:O	1:G:427:TYR:HD2	1.97	0.46
1:G:43:ILE:O	1:G:44:LEU:HD23	2.15	0.46
1:A:113:ARG:NH1	1:E:544:GLN:O	2.48	0.46
1:A:403:GLU:OE1	1:A:405:VAL:HG23	2.15	0.46
1:A:181:ASN:OD1	1:A:463:PHE:N	2.49	0.46
1:A:405:VAL:CG1	1:A:477:LEU:HD13	2.45	0.46
1:C:285:PRO:C	1:C:287:ASN:H	2.19	0.46
1:C:400:ILE:CG2	1:C:401:ASP:N	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:178:GLN:CB	1:C:472:ASN:ND2	2.78	0.46
1:C:534:ASP:O	1:C:535:GLU:C	2.53	0.46
1:A:455:GLU:HG3	1:E:259:GLN:CG	2.45	0.46
1:G:133:GLU:H	1:G:283:PHE:HE2	1.52	0.46
1:G:135:ASP:CG	1:G:136:LEU:N	2.69	0.46
1:G:428:GLU:HB3	1:G:430:PHE:HE1	1.81	0.46
1:A:85:PHE:CD2	2:B:569:LEU:HD22	2.50	0.46
1:C:127:GLU:HA	1:C:503:THR:CG2	2.45	0.46
1:C:168:LEU:HD13	1:C:201:TRP:CH2	2.49	0.46
1:C:278:ALA:O	1:C:387:LYS:HA	2.16	0.46
1:C:418:GLU:HG2	1:C:419:GLU:H	1.79	0.46
1:E:261:GLU:OE1	1:E:409:SER:CB	2.63	0.46
1:E:447:ASN:ND2	1:E:449:VAL:O	2.41	0.46
1:E:70:ILE:HG22	1:E:71:CYS:N	2.29	0.46
1:G:313:THR:HA	1:G:325:ILE:HA	1.97	0.46
1:G:292:ILE:N	1:G:325:ILE:O	2.39	0.46
1:G:447:ASN:CG	1:G:449:VAL:HG12	2.36	0.46
1:A:180:LEU:HD23	1:A:183:ILE:HD11	1.97	0.46
1:A:195:ALA:HB3	1:A:203:TYR:CE2	2.50	0.46
1:C:84:TRP:NE1	1:C:230:VAL:CG1	2.77	0.46
1:E:99:LYS:O	1:E:101:LEU:CD2	2.63	0.46
1:E:154:ARG:H	1:E:482:ASP:CG	2.16	0.46
1:E:323:VAL:HG12	1:E:325:ILE:HG23	1.98	0.46
1:E:369:TYR:O	1:E:382:VAL:HG13	2.15	0.46
1:E:391:VAL:HG12	1:E:392:SER:N	2.30	0.46
1:A:249:TRP:CE2	1:A:438:ALA:HB2	2.50	0.46
1:A:369:TYR:HD2	1:A:369:TYR:H	1.63	0.46
2:D:576:SER:O	2:D:577:ALA:HB3	2.16	0.46
1:E:99:LYS:O	1:E:101:LEU:HD23	2.15	0.46
1:E:276:VAL:HG11	1:E:369:TYR:CD2	2.51	0.46
1:E:402:THR:O	1:E:402:THR:HG22	2.13	0.46
1:E:233:GLY:HA2	1:E:440:ILE:O	2.15	0.46
1:E:474:ALA:HB1	1:E:478:ARG:NH1	2.31	0.46
1:E:90:ASP:O	1:E:91:PRO:C	2.52	0.46
2:F:605:LYS:CG	2:F:610:VAL:CG2	2.94	0.46
1:G:248:TRP:HB2	1:G:431:LEU:HD23	1.97	0.46
1:G:84:TRP:O	1:G:87:LYS:N	2.49	0.46
1:A:128:CYS:HB3	1:A:131:VAL:HG23	1.98	0.46
2:D:588:GLN:O	2:D:591:GLY:N	2.49	0.46
1:E:265:ALA:CA	1:E:404:ALA:HB2	2.46	0.46
1:E:453:THR:HB	1:E:485:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:69:GLU:HB2	1:E:76:ASP:O	2.14	0.46
1:G:254:ILE:CD1	1:G:424:VAL:HG21	2.45	0.46
1:G:380:VAL:CG1	1:G:381:ILE:N	2.78	0.46
1:G:257:LYS:CE	1:G:446:ASN:HB3	2.46	0.46
1:A:257:LYS:HG3	1:C:226:GLN:HE21	1.81	0.46
1:A:539:LEU:HA	1:A:542:ARG:HB2	1.97	0.46
1:C:79:GLU:CB	1:C:101:LEU:HD13	2.46	0.46
1:C:191:THR:C	1:C:193:GLN:N	2.69	0.46
1:C:275:THR:HB	1:C:391:VAL:CG1	2.35	0.46
1:C:537:VAL:O	1:C:538:GLN:C	2.54	0.46
1:E:145:VAL:HA	1:E:161:ALA:HA	1.97	0.46
1:E:124:VAL:HG11	1:E:206:TYR:CD2	2.51	0.46
1:E:393:ILE:HG22	1:E:394:THR:N	2.30	0.46
1:E:43:ILE:HB	1:E:67:VAL:CB	2.41	0.46
1:E:54:VAL:HG12	1:E:55:ALA:N	2.31	0.46
1:G:142:LEU:O	1:G:165:ASN:ND2	2.48	0.46
1:G:273:SER:HA	1:G:396:VAL:HG23	1.96	0.46
1:G:461:PHE:CE1	1:G:480:ILE:HB	2.50	0.46
1:G:534:ASP:HA	1:G:537:VAL:CG2	2.46	0.46
1:G:89:MET:CE	1:G:543:LEU:HB3	2.45	0.46
2:H:564:LEU:O	2:H:568:GLY:N	2.42	0.46
2:H:589:ALA:C	2:H:590:VAL:HG22	2.36	0.46
1:C:195:ALA:O	1:C:202:TYR:HA	2.16	0.46
1:C:257:LYS:HB2	1:E:456:GLU:OE2	2.16	0.46
1:A:262:THR:H	1:C:262:THR:HG21	1.81	0.46
1:C:205:ILE:CD1	1:C:480:ILE:HD11	2.46	0.46
1:C:87:LYS:HE3	1:C:95:VAL:HG23	1.93	0.46
1:E:266:ALA:HB3	1:E:270:SER:OG	2.16	0.46
1:E:70:ILE:O	1:E:76:ASP:HA	2.15	0.46
2:F:617:SER:O	2:F:619:LYS:N	2.49	0.46
1:G:277:SER:HB3	1:G:391:VAL:HG22	1.97	0.46
1:G:288:THR:O	1:G:289:VAL:HG23	2.15	0.46
1:G:325:ILE:HD12	1:G:333:TRP:CD2	2.51	0.46
1:A:177:ILE:O	1:A:178:GLN:C	2.53	0.46
1:A:264:PRO:HG2	1:C:264:PRO:CG	2.46	0.46
1:A:275:THR:HG23	1:A:478:ARG:NH2	2.31	0.46
1:A:341:ILE:CG2	1:A:342:LEU:N	2.79	0.46
1:A:363:THR:C	1:A:365:ASP:N	2.67	0.46
1:C:75:ILE:HG21	1:C:535:GLU:HG3	1.96	0.46
1:E:274:MET:HB3	1:E:394:THR:HB	1.98	0.46
1:E:49:LEU:O	1:E:50:PRO:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:142:LEU:HD12	1:G:497:GLY:CA	2.43	0.46
1:G:159:ALA:CB	1:G:206:TYR:HE1	2.28	0.46
1:G:291:ARG:HA	1:G:326:ASP:CA	2.46	0.46
1:G:360:THR:HB	1:G:368:VAL:CG1	2.45	0.46
1:G:449:VAL:HG13	1:G:450:PHE:N	2.30	0.46
2:H:566:SER:O	2:H:570:GLY:N	2.48	0.46
1:A:111:LEU:HD23	1:A:228:ARG:HH12	1.81	0.46
1:A:325:ILE:CD1	1:A:325:ILE:C	2.84	0.46
1:C:229:LYS:HB2	1:C:485:GLU:HG3	1.98	0.46
1:C:251:GLY:C	1:C:550:VAL:HG11	2.36	0.46
1:C:500:GLN:HA	1:C:500:GLN:OE1	2.15	0.46
1:C:127:GLU:HB2	1:C:503:THR:HG21	1.98	0.46
1:E:456:GLU:CD	1:E:456:GLU:H	2.19	0.46
1:G:136:LEU:HD11	1:G:141:LYS:HB2	1.98	0.46
1:G:274:MET:HE2	1:G:296:ILE:HD11	1.97	0.46
1:G:411:GLU:HG3	1:G:464:HIS:CG	2.51	0.46
1:G:428:GLU:HB2	1:G:550:VAL:HG12	1.97	0.46
1:A:181:ASN:ND2	1:A:181:ASN:H	2.14	0.45
1:A:234:ILE:HG12	1:A:508:THR:CG2	2.22	0.45
1:A:306:LEU:HA	1:A:333:TRP:HA	1.97	0.45
1:A:485:GLU:OE1	1:A:487:ASN:HB2	2.16	0.45
1:A:114:TYR:HA	1:A:527:HIS:O	2.16	0.45
1:E:148:ILE:HG23	1:E:413:PRO:HG3	1.98	0.45
1:E:197:PHE:CE1	1:E:198:ALA:HB2	2.51	0.45
1:E:89:MET:HE1	1:E:540:ALA:CB	2.46	0.45
1:E:85:PHE:CE2	2:F:565:ALA:HB1	2.51	0.45
1:G:145:VAL:HG13	1:G:145:VAL:O	2.15	0.45
1:G:173:ARG:NH2	1:G:466:PRO:O	2.49	0.45
1:G:229:LYS:HE3	1:G:510:ASP:OD2	2.16	0.45
1:G:243:LEU:C	1:G:245:ASP:N	2.69	0.45
1:G:342:LEU:HD23	1:G:347:PRO:HA	1.97	0.45
1:G:518:ALA:C	1:G:520:SER:H	2.18	0.45
1:G:428:GLU:HB2	1:G:550:VAL:CG1	2.46	0.45
2:H:564:LEU:CD2	2:H:564:LEU:N	2.78	0.45
1:A:262:THR:HA	1:A:406:ASN:HB2	1.93	0.45
1:A:282:ILE:N	1:A:282:ILE:HD13	2.29	0.45
1:A:407:ARG:NE	1:A:460:GLY:O	2.49	0.45
2:B:588:GLN:O	2:B:590:VAL:N	2.49	0.45
1:C:155:LEU:HD22	1:C:156:ASN:N	2.31	0.45
1:C:182:ASN:OD1	1:C:474:ALA:CB	2.64	0.45
1:C:88:TYR:O	1:C:88:TYR:CG	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:157:PHE:N	1:E:157:PHE:HD2	2.13	0.45
1:E:357:PHE:CE1	1:E:369:TYR:HB2	2.51	0.45
1:G:131:VAL:HG23	1:G:163:ILE:CD1	2.47	0.45
1:G:186:TRP:O	1:G:189:LEU:HD23	2.16	0.45
1:G:470:PRO:HA	1:G:473:ASN:OD1	2.15	0.45
2:H:571:LEU:HD23	2:H:571:LEU:N	2.32	0.45
1:A:238:PHE:CD2	1:A:432:CYS:HB3	2.50	0.45
1:A:145:VAL:CG1	1:A:498:ILE:HD12	2.45	0.45
1:C:228:ARG:HG3	1:C:228:ARG:O	2.17	0.45
1:C:246:GLN:OE1	1:C:246:GLN:N	2.50	0.45
1:C:407:ARG:NE	1:C:462:GLN:HB2	2.32	0.45
1:C:405:VAL:HG11	1:C:477:LEU:CD2	2.47	0.45
1:C:544:GLN:O	1:C:546:GLU:N	2.50	0.45
2:D:560:THR:C	2:D:564:LEU:HD22	2.37	0.45
1:E:147:PHE:N	1:E:147:PHE:CD1	2.83	0.45
1:E:148:ILE:CD1	1:E:148:ILE:N	2.80	0.45
1:E:286:SER:C	1:E:288:THR:H	2.19	0.45
1:E:543:LEU:O	1:E:547:LEU:N	2.47	0.45
1:G:185:ASN:CB	1:G:318:GLY:HA3	2.45	0.45
1:A:267:GLU:HB3	1:E:395:PRO:HB3	1.99	0.45
1:A:307:THR:HG22	1:A:308:THR:OG1	2.17	0.45
1:A:350:GLU:O	1:A:352:GLY:N	2.48	0.45
1:A:147:PHE:HE1	1:A:495:PHE:CD1	2.35	0.45
1:A:446:ASN:O	1:C:452:MET:HG3	2.16	0.45
1:C:461:PHE:HD2	1:C:463:PHE:CZ	2.35	0.45
1:C:544:GLN:O	1:C:547:LEU:N	2.47	0.45
2:D:571:LEU:O	2:D:572:LEU:C	2.54	0.45
2:D:578:THR:HB	2:D:581:VAL:H	1.80	0.45
1:E:146:SER:O	1:E:159:ALA:HA	2.17	0.45
1:E:254:ILE:O	1:E:490:SER:HB3	2.16	0.45
1:G:109:ASP:O	1:G:110:GLY:C	2.54	0.45
1:G:110:GLY:H	1:G:532:GLU:N	2.15	0.45
1:A:109:ASP:N	1:A:109:ASP:OD1	2.42	0.45
1:A:356:SER:O	1:A:371:VAL:HA	2.16	0.45
1:E:148:ILE:HG21	1:E:150:PHE:CZ	2.51	0.45
1:G:191:THR:HG23	1:G:193:GLN:CG	2.43	0.45
1:A:181:ASN:ND2	1:A:181:ASN:N	2.64	0.45
1:A:307:THR:HG22	1:A:308:THR:N	2.31	0.45
1:A:443:TYR:CE2	1:A:445:MET:HB2	2.52	0.45
1:A:255:PRO:HA	1:A:489:SER:HA	1.99	0.45
1:A:549:GLY:HA3	1:C:113:ARG:HH21	1.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:197:PHE:CZ	1:C:201:TRP:HB3	2.51	0.45
1:C:225:THR:HB	1:C:515:THR:OG1	2.17	0.45
1:C:259:GLN:HG2	1:E:406:ASN:ND2	2.32	0.45
1:C:484:PHE:O	1:C:486:ASN:N	2.50	0.45
2:D:574:LYS:HD2	2:D:574:LYS:H	1.80	0.45
1:E:173:ARG:HD3	1:E:465:TYR:CE2	2.51	0.45
1:E:277:SER:OG	1:E:293:VAL:HB	2.16	0.45
1:E:275:THR:HG21	1:E:478:ARG:NH1	2.31	0.45
1:E:534:ASP:N	1:E:534:ASP:OD1	2.48	0.45
1:G:176:PHE:CZ	1:G:180:LEU:HD11	2.52	0.45
1:G:227:PHE:N	1:G:452:MET:HE3	2.31	0.45
1:G:297:THR:OG1	1:G:478:ARG:NH1	2.49	0.45
2:H:571:LEU:HD23	2:H:571:LEU:H	1.81	0.45
1:A:407:ARG:NH2	1:A:462:GLN:HB3	2.31	0.45
1:A:448:PRO:HA	1:C:111:LEU:HD13	1.98	0.45
1:A:456:GLU:HG2	1:A:457:ASN:N	2.32	0.45
1:A:225:THR:CG2	1:A:517:ASN:HB2	2.29	0.45
1:C:235:THR:HA	1:C:439:TYR:HA	1.99	0.45
1:E:286:SER:O	1:E:387:LYS:NZ	2.50	0.45
1:E:436:GLY:H	1:E:554:ASP:CG	2.20	0.45
2:F:609:SER:O	2:F:610:VAL:C	2.55	0.45
1:C:140:GLY:O	1:G:136:LEU:HD23	2.16	0.45
1:G:151:PRO:HB3	1:G:488:PHE:HB2	1.99	0.45
2:H:557:PHE:CD1	2:H:558:ALA:N	2.84	0.45
1:G:90:ASP:HB2	2:H:561:VAL:HB	1.99	0.45
1:A:107:VAL:HG12	1:A:109:ASP:CG	2.37	0.45
1:A:143:TRP:NE1	1:A:500:GLN:HA	2.31	0.45
1:A:89:MET:HE1	1:A:543:LEU:HB3	1.99	0.45
1:C:150:PHE:HE1	1:C:158:ILE:HD12	1.82	0.45
1:C:410:ILE:HG22	1:C:411:GLU:O	2.17	0.45
1:C:475:LEU:CG	1:E:267:GLU:CD	2.85	0.45
1:C:537:VAL:HG12	1:C:541:ASN:OD1	2.17	0.45
1:E:105:SER:HA	1:E:231:TYR:HE2	1.82	0.45
1:A:403:GLU:OE1	1:E:261:GLU:OE2	2.34	0.45
1:E:463:PHE:N	1:E:463:PHE:CD1	2.85	0.45
2:H:578:THR:HG23	2:H:580:SER:H	1.82	0.45
1:A:197:PHE:CD1	1:A:197:PHE:C	2.90	0.45
1:A:323:VAL:HG12	1:A:325:ILE:HG23	1.99	0.45
1:A:322:SER:O	1:A:323:VAL:HG23	2.16	0.45
1:A:404:ALA:O	1:A:405:VAL:C	2.55	0.45
1:A:248:TRP:HB3	1:A:431:LEU:HD22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:464:HIS:C	1:A:464:HIS:CD2	2.90	0.45
1:A:320:PHE:CE2	1:A:477:LEU:HB3	2.52	0.45
1:A:117:ASP:HA	1:A:513:GLU:HA	1.98	0.45
1:C:122:PRO:CG	1:C:209:PRO:HD2	2.47	0.45
1:C:210:ASN:O	1:C:213:ALA:HB3	2.16	0.45
1:C:285:PRO:CB	1:C:288:THR:HB	2.47	0.45
1:C:334:THR:HG22	1:C:356:SER:CB	2.47	0.45
1:C:400:ILE:CD1	1:C:400:ILE:N	2.75	0.45
1:C:439:TYR:CE1	1:C:441:VAL:HG22	2.52	0.45
1:C:118:ALA:O	1:C:511:GLY:HA2	2.16	0.45
1:E:272:GLY:HA2	1:E:297:THR:HG21	1.98	0.45
1:E:334:THR:O	1:E:335:PHE:HB3	2.16	0.45
1:E:227:PHE:O	1:E:452:MET:HE2	2.17	0.45
1:E:411:GLU:HB2	1:E:464:HIS:NE2	2.31	0.45
1:E:77:PRO:HB2	1:E:82:VAL:HG22	1.99	0.45
2:F:576:SER:O	2:F:578:THR:N	2.50	0.45
1:G:133:GLU:O	1:G:134:SER:C	2.56	0.45
1:G:144:ARG:NH1	1:G:201:TRP:HH2	2.15	0.45
1:G:202:TYR:N	1:G:202:TYR:CD1	2.85	0.45
1:G:458:PHE:CD1	1:G:459:GLY:N	2.85	0.45
1:G:109:ASP:HA	1:G:532:GLU:HG3	1.97	0.45
1:G:72:ALA:C	1:G:74:SER:H	2.21	0.45
1:A:268:ARG:HB2	1:E:395:PRO:HB2	1.99	0.45
1:A:235:THR:HB	1:A:439:TYR:CD1	2.52	0.45
1:A:531:GLU:OE2	1:A:533:GLU:HG2	2.17	0.45
2:B:578:THR:HB	2:B:581:VAL:H	1.82	0.45
1:C:177:ILE:HG23	1:C:181:ASN:HD21	1.78	0.45
1:C:241:PRO:C	1:C:243:LEU:N	2.70	0.45
1:C:316:THR:OG1	1:C:317:SER:N	2.49	0.45
1:C:400:ILE:HG22	1:C:401:ASP:O	2.16	0.45
1:C:235:THR:HG21	1:C:556:ASN:CB	2.46	0.45
2:D:572:LEU:CA	2:D:575:SER:OG	2.65	0.45
1:E:493:VAL:HG13	1:E:493:VAL:O	2.15	0.45
1:E:127:GLU:HB3	1:E:503:THR:OG1	2.17	0.45
1:G:113:ARG:O	1:G:529:GLY:N	2.49	0.45
1:G:88:TYR:OH	1:G:443:TYR:HB2	2.17	0.45
1:G:436:GLY:N	1:G:554:ASP:OD2	2.50	0.45
1:A:202:TYR:N	1:A:202:TYR:CD1	2.85	0.44
1:A:235:THR:HA	1:A:439:TYR:HA	1.98	0.44
1:C:250:VAL:CB	1:C:429:GLN:HB3	2.44	0.44
1:E:189:LEU:HB3	1:E:205:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:153:PHE:HB2	1:E:227:PHE:CZ	2.52	0.44
1:E:87:LYS:O	1:E:91:PRO:CD	2.63	0.44
1:G:181:ASN:C	1:G:407:ARG:NH2	2.69	0.44
1:G:189:LEU:C	1:G:191:THR:H	2.20	0.44
1:G:196:GLN:CG	1:G:197:PHE:N	2.80	0.44
1:G:207:VAL:O	1:G:209:PRO:HD3	2.16	0.44
1:G:274:MET:HA	1:G:295:SER:O	2.17	0.44
1:E:98:GLY:CA	1:G:63:MET:HE1	2.45	0.44
2:H:564:LEU:O	2:H:565:ALA:C	2.55	0.44
1:A:276:VAL:CG1	1:A:294:TRP:HB2	2.46	0.44
1:A:499:SER:O	1:A:502:ALA:N	2.46	0.44
1:A:538:GLN:HA	1:A:538:GLN:HE21	1.83	0.44
1:C:359:MET:HE1	1:C:367:VAL:HG11	1.99	0.44
1:A:409:SER:OG	1:C:455:GLU:OE2	2.26	0.44
1:E:412:MET:CE	1:E:415:LEU:HD21	2.47	0.44
1:A:426:LYS:HE2	1:C:528:THR:OG1	2.16	0.44
1:A:544:GLN:O	1:C:113:ARG:HD2	2.16	0.44
1:A:550:VAL:O	1:A:551:TYR:CG	2.70	0.44
1:C:243:LEU:HG	1:C:244:ILE:HG23	2.00	0.44
1:E:106:LYS:NZ	1:E:117:ASP:OD1	2.44	0.44
1:E:210:ASN:OD1	1:G:520:SER:O	2.35	0.44
1:E:413:PRO:O	1:E:414:ALA:C	2.54	0.44
1:E:450:PHE:N	1:E:450:PHE:HD2	2.14	0.44
1:G:134:SER:O	1:G:135:ASP:O	2.35	0.44
1:G:162:ASN:HB2	1:G:201:TRP:CE3	2.51	0.44
1:G:381:ILE:HD13	1:G:394:THR:HG21	1.98	0.44
1:G:186:TRP:CD1	1:G:481:VAL:HG23	2.52	0.44
1:G:527:HIS:O	1:G:528:THR:O	2.35	0.44
1:A:164:ASN:C	1:A:166:GLU:H	2.21	0.44
1:A:178:GLN:HG3	1:A:472:ASN:HB3	1.99	0.44
1:A:302:ALA:HB3	1:A:321:PHE:CE1	2.53	0.44
1:C:125:THR:CG2	1:C:505:VAL:HG13	2.48	0.44
1:C:88:TYR:HE1	1:C:443:TYR:HA	1.82	0.44
1:E:44:LEU:HD11	1:E:63:MET:CE	2.47	0.44
1:G:105:SER:O	1:G:117:ASP:CB	2.66	0.44
1:G:103:GLU:HB3	1:G:117:ASP:OD1	2.18	0.44
1:G:203:TYR:CD1	1:G:204:SER:N	2.86	0.44
1:G:363:THR:CG2	1:G:364:ALA:N	2.75	0.44
1:G:481:VAL:O	1:G:482:ASP:CB	2.54	0.44
1:G:498:ILE:HG22	1:G:498:ILE:O	2.17	0.44
1:G:499:SER:O	1:G:500:GLN:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:86:TYR:O	1:G:87:LYS:C	2.55	0.44
2:H:585:ILE:O	2:H:588:GLN:N	2.51	0.44
1:A:170:LEU:O	1:A:171:GLU:C	2.56	0.44
1:A:334:THR:HG21	1:A:354:THR:HG22	1.99	0.44
1:C:313:THR:HG22	1:C:314:ASN:N	2.32	0.44
1:E:109:ASP:O	1:E:111:LEU:N	2.50	0.44
1:E:160:LEU:HG	1:E:160:LEU:O	2.17	0.44
1:E:175:THR:O	1:E:176:PHE:C	2.56	0.44
1:E:295:SER:C	1:E:296:ILE:HG13	2.37	0.44
1:G:527:HIS:N	1:G:527:HIS:ND1	2.66	0.44
1:A:198:ALA:HB1	1:A:199:PRO:CD	2.36	0.44
1:C:191:THR:O	1:C:191:THR:HG22	2.17	0.44
1:C:299:LEU:HD12	1:C:300:PRO:CD	2.47	0.44
1:C:300:PRO:HG3	1:C:400:ILE:HG12	1.99	0.44
1:E:230:VAL:N	1:E:511:GLY:O	2.50	0.44
1:E:304:VAL:HG21	1:E:323:VAL:HG21	2.00	0.44
1:E:90:ASP:CG	2:F:561:VAL:HB	2.38	0.44
2:F:588:GLN:HG3	2:F:593:VAL:O	2.18	0.44
2:F:597:PRO:C	2:F:599:ILE:N	2.70	0.44
1:G:119:GLU:HG2	1:G:120:GLN:N	2.33	0.44
1:C:421:THR:CG2	1:G:123:ILE:HD12	2.39	0.44
1:G:138:LEU:HD22	1:G:244:ILE:CD1	2.47	0.44
1:G:265:ALA:HB1	1:G:402:THR:O	2.17	0.44
1:A:106:LYS:HG3	1:A:117:ASP:CG	2.38	0.44
1:A:341:ILE:C	1:A:342:LEU:HD23	2.38	0.44
1:A:538:GLN:HG2	2:B:582:ILE:CD1	2.30	0.44
1:C:354:THR:N	1:C:374:SER:CB	2.80	0.44
1:C:407:ARG:HH11	1:C:407:ARG:HG3	1.83	0.44
1:E:126:ILE:N	1:E:126:ILE:CD1	2.80	0.44
1:E:164:ASN:C	1:E:166:GLU:H	2.21	0.44
1:G:189:LEU:C	1:G:191:THR:N	2.70	0.44
1:G:248:TRP:HD1	1:G:431:LEU:CD2	2.25	0.44
1:G:280:ASN:HB3	1:G:286:SER:HA	1.99	0.44
1:G:299:LEU:HD12	1:G:300:PRO:CD	2.48	0.44
1:G:276:VAL:H	1:G:391:VAL:HG12	1.81	0.44
1:G:236:PHE:HB3	1:G:504:ILE:HG21	2.00	0.44
1:G:522:VAL:O	1:G:524:GLN:N	2.50	0.44
1:G:547:LEU:CD2	1:G:547:LEU:N	2.81	0.44
2:F:613:ARG:NH1	3:R:4:U:C6	2.85	0.44
1:A:156:ASN:N	1:A:206:TYR:O	2.50	0.44
1:A:120:GLN:CD	1:A:208:LEU:HB3	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:419:GLU:O	1:A:423:ASN:N	2.51	0.44
1:A:110:GLY:HA3	1:A:532:GLU:N	2.33	0.44
1:C:359:MET:CE	1:C:367:VAL:HG11	2.48	0.44
2:D:565:ALA:O	2:D:568:GLY:N	2.51	0.44
1:G:143:TRP:NE1	1:G:498:ILE:HG22	2.32	0.44
1:G:197:PHE:CZ	1:G:201:TRP:HB3	2.53	0.44
1:G:341:ILE:HG23	1:G:396:VAL:CG1	2.48	0.44
1:G:408:LEU:HD21	1:G:458:PHE:O	2.17	0.44
1:G:407:ARG:CZ	1:G:478:ARG:O	2.66	0.44
1:G:440:ILE:HA	1:G:549:GLY:O	2.18	0.44
1:A:297:THR:HG23	1:A:478:ARG:CZ	2.47	0.44
1:A:343:ALA:C	1:A:344:GLU:HG2	2.38	0.44
1:A:534:ASP:O	1:A:537:VAL:HG22	2.18	0.44
1:E:407:ARG:NE	1:E:478:ARG:O	2.51	0.44
1:E:416:THR:C	1:E:418:GLU:N	2.71	0.44
1:E:275:THR:HG22	1:E:478:ARG:HH12	1.82	0.44
1:E:121:ARG:HA	1:E:508:THR:O	2.17	0.44
1:G:178:GLN:CD	1:G:182:ASN:ND2	2.71	0.44
1:G:160:LEU:HA	1:G:203:TYR:HA	2.00	0.44
1:G:407:ARG:HG3	1:G:460:GLY:C	2.38	0.44
1:G:435:SER:C	1:G:437:GLY:N	2.69	0.44
1:G:543:LEU:O	1:G:544:GLN:C	2.56	0.44
2:H:561:VAL:C	2:H:563:ALA:N	2.70	0.44
2:B:577:ALA:O	2:B:578:THR:C	2.54	0.43
2:B:579:PRO:HA	2:B:582:ILE:HD12	2.00	0.43
1:C:162:ASN:ND2	1:C:164:ASN:O	2.51	0.43
1:C:245:ASP:O	1:C:246:GLN:C	2.56	0.43
1:C:242:THR:HA	1:C:245:ASP:OD2	2.18	0.43
1:C:337:ALA:O	1:C:351:GLU:O	2.35	0.43
1:C:84:TRP:O	1:C:85:PHE:C	2.57	0.43
1:C:90:ASP:C	1:C:92:ALA:H	2.21	0.43
2:D:567:ILE:CG2	2:D:568:GLY:H	2.31	0.43
1:E:173:ARG:HG2	1:E:177:ILE:HD11	2.00	0.43
1:E:250:VAL:HG13	1:E:429:GLN:HB2	1.99	0.43
1:A:225:THR:HB	1:E:255:PRO:O	2.18	0.43
1:C:257:LYS:CB	1:E:456:GLU:OE2	2.66	0.43
1:G:139:ASP:O	1:G:139:ASP:OD1	2.35	0.43
1:G:146:SER:OG	1:G:494:HIS:ND1	2.50	0.43
1:G:537:VAL:HG12	1:G:541:ASN:HD21	1.83	0.43
1:A:128:CYS:HA	1:A:143:TRP:CH2	2.53	0.43
1:A:440:ILE:O	1:A:440:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:470:PRO:HB2	1:C:403:GLU:HB3	2.00	0.43
1:C:111:LEU:O	1:C:111:LEU:HG	2.18	0.43
1:A:443:TYR:HH	1:C:112:LEU:HA	1.82	0.43
1:A:259:GLN:CB	1:C:455:GLU:HG3	2.43	0.43
1:E:184:THR:HG21	1:E:295:SER:OG	2.17	0.43
1:E:300:PRO:O	1:E:338:PRO:HG2	2.18	0.43
1:E:77:PRO:HB2	1:E:82:VAL:CG2	2.47	0.43
2:F:588:GLN:O	2:F:591:GLY:N	2.51	0.43
1:G:240:ALA:HB1	1:G:241:PRO:HD2	2.00	0.43
1:G:307:THR:OG1	1:G:334:THR:HG22	2.19	0.43
1:A:208:LEU:O	1:A:209:PRO:C	2.56	0.43
1:A:276:VAL:HG22	1:A:294:TRP:CB	2.46	0.43
2:B:564:LEU:CD1	2:B:589:ALA:O	2.66	0.43
1:C:126:ILE:N	1:C:126:ILE:CD1	2.81	0.43
1:C:167:ALA:O	1:C:201:TRP:HZ2	2.01	0.43
1:E:120:GLN:NE2	1:E:211:THR:HG23	2.34	0.43
1:E:248:TRP:CB	1:E:431:LEU:HA	2.48	0.43
1:E:364:ALA:O	1:E:387:LYS:HE3	2.18	0.43
1:E:520:SER:C	1:E:522:VAL:H	2.20	0.43
2:F:563:ALA:O	2:F:566:SER:HB3	2.18	0.43
2:F:574:LYS:HG2	2:F:575:SER:N	2.33	0.43
1:C:140:GLY:HA3	1:G:138:LEU:CD2	2.47	0.43
1:G:146:SER:CB	1:G:494:HIS:ND1	2.82	0.43
1:G:248:TRP:CH2	1:G:250:VAL:HB	2.54	0.43
1:G:373:SER:C	1:G:375:LEU:N	2.71	0.43
1:A:169:THR:HG23	1:A:172:THR:H	1.82	0.43
1:A:178:GLN:NE2	1:A:391:VAL:N	2.67	0.43
1:A:495:PHE:CG	1:A:498:ILE:HD11	2.54	0.43
1:C:178:GLN:HB3	1:C:472:ASN:ND2	2.33	0.43
1:C:295:SER:HA	1:C:322:SER:HA	2.01	0.43
1:C:398:VAL:CB	1:C:400:ILE:HD13	2.43	0.43
1:E:253:HIS:HA	1:E:491:ALA:HB2	1.99	0.43
1:E:253:HIS:HB3	1:E:489:SER:OG	2.18	0.43
1:E:371:VAL:HB	1:E:381:ILE:HB	2.00	0.43
1:G:185:ASN:O	1:G:187:ARG:N	2.51	0.43
1:A:137:PRO:CG	1:A:137:PRO:O	2.65	0.43
1:A:183:ILE:HG22	1:A:186:TRP:HA	2.00	0.43
1:A:224:VAL:HG13	1:A:515:THR:O	2.18	0.43
1:A:227:PHE:CD1	1:A:228:ARG:N	2.86	0.43
1:A:97:SER:O	1:A:99:LYS:N	2.51	0.43
2:B:578:THR:HG22	2:B:580:SER:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:582:ILE:O	2:B:583:LYS:C	2.56	0.43
1:C:136:LEU:HD12	1:C:136:LEU:C	2.39	0.43
1:C:153:PHE:CE2	1:C:211:THR:HG23	2.54	0.43
1:C:170:LEU:O	1:C:171:GLU:C	2.57	0.43
1:C:544:GLN:O	1:C:545:MET:C	2.57	0.43
1:C:81:ALA:O	1:C:82:VAL:C	2.57	0.43
1:E:408:LEU:HD12	1:E:461:PHE:CE2	2.53	0.43
2:F:567:ILE:HG13	2:F:568:GLY:N	2.34	0.43
1:G:224:VAL:CG1	1:G:225:THR:N	2.81	0.43
1:G:274:MET:O	1:G:274:MET:HG3	2.17	0.43
1:G:375:LEU:HD23	1:G:376:THR:O	2.19	0.43
1:G:554:ASP:O	1:G:555:ASP:OD2	2.37	0.43
1:A:111:LEU:HD13	1:E:448:PRO:HA	2.01	0.43
1:A:122:PRO:HB3	1:A:209:PRO:CG	2.49	0.43
1:A:240:ALA:O	1:A:241:PRO:C	2.57	0.43
1:A:407:ARG:O	1:A:408:LEU:HD23	2.19	0.43
1:A:253:HIS:CE1	1:A:491:ALA:HB2	2.54	0.43
1:A:538:GLN:OE1	1:A:542:ARG:NH1	2.47	0.43
1:C:254:ILE:CG2	1:E:225:THR:HG21	2.48	0.43
1:C:299:LEU:HA	1:C:300:PRO:HD3	1.92	0.43
1:C:431:LEU:HD23	1:C:431:LEU:HA	1.90	0.43
1:C:442:HIS:O	1:C:443:TYR:HB3	2.17	0.43
1:C:75:ILE:HD12	1:C:535:GLU:HG3	2.00	0.43
2:D:578:THR:HB	2:D:581:VAL:CG2	2.47	0.43
1:E:130:THR:OG1	1:E:163:ILE:HG12	2.18	0.43
1:E:396:VAL:HG12	1:E:397:THR:N	2.32	0.43
1:E:470:PRO:C	1:E:472:ASN:N	2.70	0.43
1:E:537:VAL:HG12	1:E:541:ASN:HD21	1.83	0.43
1:A:532:GLU:HG2	1:E:542:ARG:NH2	2.34	0.43
1:E:555:ASP:O	1:E:556:ASN:O	2.37	0.43
1:G:122:PRO:HB3	1:G:209:PRO:CG	2.48	0.43
1:G:178:GLN:HA	1:G:468:TYR:OH	2.17	0.43
1:G:74:SER:O	1:G:75:ILE:HG23	2.19	0.43
1:E:249:TRP:HB3	1:E:495:PHE:CD2	2.54	0.43
1:E:291:ARG:HG2	1:E:291:ARG:O	2.18	0.43
1:G:142:LEU:HB3	1:G:499:SER:HA	2.01	0.43
1:G:217:ILE:HG23	1:G:319:LYS:HZ2	1.84	0.43
1:A:171:GLU:O	1:A:172:THR:C	2.55	0.43
1:A:269:PHE:CE1	1:A:399:GLY:HA2	2.54	0.43
1:A:475:LEU:HA	1:A:475:LEU:HD12	1.76	0.43
1:A:108:PRO:HG2	1:A:537:VAL:HG12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:144:ARG:O	1:C:161:ALA:HA	2.19	0.43
1:C:234:ILE:HG22	1:C:508:THR:HB	2.00	0.43
1:C:356:SER:O	1:C:371:VAL:HA	2.19	0.43
1:C:229:LYS:CB	1:C:485:GLU:HG3	2.49	0.43
1:C:246:GLN:HE22	1:C:499:SER:CB	2.31	0.43
1:C:74:SER:C	1:C:75:ILE:HG23	2.39	0.43
1:E:174:ASN:OD1	1:E:468:TYR:HA	2.19	0.43
1:E:245:ASP:N	1:E:245:ASP:OD1	2.52	0.43
1:G:304:VAL:CG1	1:G:323:VAL:HG21	2.46	0.43
1:A:116:VAL:HG22	1:A:526:ALA:HB2	2.01	0.43
1:C:187:ARG:C	1:C:189:LEU:N	2.71	0.43
1:C:230:VAL:O	1:C:231:TYR:HB3	2.19	0.43
1:C:360:THR:HB	1:C:368:VAL:HG11	1.99	0.43
2:D:579:PRO:HG2	1:E:535:GLU:CD	2.38	0.43
1:E:109:ASP:O	1:E:110:GLY:C	2.56	0.43
1:E:117:ASP:O	1:E:118:ALA:HB2	2.19	0.43
1:E:248:TRP:CZ3	1:E:250:VAL:HG23	2.53	0.43
1:E:304:VAL:HA	1:E:334:THR:O	2.19	0.43
1:E:87:LYS:NZ	1:E:95:VAL:CG2	2.81	0.43
1:G:130:THR:HG22	1:G:282:ILE:HG21	2.01	0.43
1:G:339:ALA:O	1:G:341:ILE:HG13	2.18	0.43
1:G:256:VAL:HG12	1:G:410:ILE:HG23	2.01	0.43
1:G:48:LEU:HD22	1:G:54:VAL:HG21	2.01	0.43
1:A:198:ALA:HB3	1:A:201:TRP:CB	2.35	0.43
1:A:256:VAL:HG22	1:C:225:THR:CG2	2.49	0.43
1:A:282:ILE:O	1:A:283:PHE:CB	2.66	0.43
1:A:290:ALA:HB2	1:A:387:LYS:HZ1	1.84	0.43
1:A:279:SER:OG	1:A:291:ARG:NH2	2.52	0.43
1:A:537:VAL:O	1:A:538:GLN:C	2.57	0.43
1:A:435:SER:OG	1:A:552:GLN:HG2	2.19	0.43
1:A:85:PHE:CE2	2:B:565:ALA:HB1	2.54	0.43
1:A:97:SER:C	1:A:99:LYS:N	2.73	0.43
1:C:148:ILE:N	1:C:148:ILE:CD1	2.79	0.43
1:C:291:ARG:NE	1:C:324:GLU:OE1	2.45	0.43
1:C:370:SER:HB2	1:C:381:ILE:O	2.19	0.43
1:E:146:SER:O	1:E:160:LEU:HD23	2.19	0.43
1:E:228:ARG:CB	1:E:452:MET:CE	2.92	0.43
1:E:79:GLU:HB3	1:E:101:LEU:CD1	2.45	0.43
1:G:522:VAL:O	1:G:525:PHE:N	2.48	0.43
1:A:152:ALA:HA	1:A:483:THR:O	2.19	0.42
1:A:398:VAL:HG12	1:A:399:GLY:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:456:GLU:HG2	1:A:457:ASN:H	1.83	0.42
1:A:445:MET:HE1	1:C:113:ARG:HB2	2.00	0.42
1:C:142:LEU:O	1:C:143:TRP:CB	2.67	0.42
1:C:451:GLU:HG2	1:C:452:MET:H	1.83	0.42
1:C:82:VAL:HB	1:C:101:LEU:HD11	2.01	0.42
1:C:87:LYS:HE3	1:C:94:ALA:HB3	2.02	0.42
1:C:88:TYR:OH	1:C:443:TYR:HB2	2.19	0.42
2:D:580:SER:O	2:D:583:LYS:HB3	2.18	0.42
1:E:144:ARG:NH1	1:E:201:TRP:HH2	2.17	0.42
2:F:593:VAL:CG1	2:F:594:GLN:N	2.81	0.42
1:G:292:ILE:HD13	1:G:325:ILE:O	2.19	0.42
1:G:292:ILE:HG12	1:G:325:ILE:CG1	2.49	0.42
1:G:460:GLY:O	1:G:461:PHE:C	2.57	0.42
1:G:539:LEU:O	1:G:543:LEU:N	2.52	0.42
2:H:582:ILE:O	2:H:585:ILE:HB	2.19	0.42
1:A:256:VAL:HG22	1:C:225:THR:HG21	2.00	0.42
1:A:359:MET:HA	1:A:369:TYR:HA	2.02	0.42
1:A:375:LEU:CG	1:A:378:SER:HB3	2.49	0.42
1:A:485:GLU:HG3	1:A:487:ASN:H	1.83	0.42
1:A:240:ALA:HB2	1:A:502:ALA:HB1	2.00	0.42
1:C:447:ASN:C	1:C:449:VAL:N	2.73	0.42
1:C:492:VAL:CG1	1:C:494:HIS:NE2	2.81	0.42
1:C:503:THR:C	1:C:504:ILE:HD12	2.40	0.42
1:C:82:VAL:O	1:C:83:GLY:C	2.56	0.42
1:E:178:GLN:C	1:E:178:GLN:OE1	2.58	0.42
1:E:343:ALA:O	1:E:344:GLU:C	2.58	0.42
1:G:87:LYS:HG3	1:G:104:PHE:CD1	2.53	0.42
1:A:143:TRP:HB2	1:A:162:ASN:O	2.19	0.42
1:A:405:VAL:HG12	1:A:477:LEU:HD13	2.01	0.42
1:A:121:ARG:HG2	1:A:509:TYR:CE2	2.54	0.42
1:C:176:PHE:HB2	1:C:197:PHE:CE1	2.53	0.42
1:C:535:GLU:CD	1:C:535:GLU:N	2.71	0.42
1:E:116:VAL:HG22	1:G:525:PHE:HE2	1.85	0.42
1:E:207:VAL:HB	1:E:212:TYR:CB	2.48	0.42
1:E:267:GLU:O	1:E:401:ASP:OD2	2.37	0.42
1:E:471:GLU:HG3	1:E:472:ASN:N	2.34	0.42
1:E:480:ILE:HG22	1:E:481:VAL:N	2.34	0.42
1:G:155:LEU:HD12	1:G:156:ASN:H	1.85	0.42
1:G:276:VAL:HG22	1:G:294:TRP:CD1	2.54	0.42
1:G:274:MET:HA	1:G:296:ILE:HA	2.01	0.42
1:G:299:LEU:HA	1:G:300:PRO:HD3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:442:HIS:H	1:G:442:HIS:CD2	2.37	0.42
2:H:588:GLN:C	2:H:590:VAL:N	2.73	0.42
1:C:107:VAL:HG23	1:C:230:VAL:HG22	1.99	0.42
1:E:178:GLN:HE22	1:E:391:VAL:HG23	1.84	0.42
1:E:284:GLN:OE1	1:E:284:GLN:N	2.41	0.42
1:E:60:ARG:NH2	1:E:64:ASP:OD1	2.52	0.42
2:F:567:ILE:HD12	2:F:567:ILE:O	2.20	0.42
1:G:154:ARG:O	1:G:208:LEU:HG	2.19	0.42
1:A:370:SER:CB	1:A:381:ILE:O	2.61	0.42
1:A:482:ASP:CG	1:A:483:THR:H	2.22	0.42
1:A:114:TYR:HA	1:A:528:THR:HA	2.00	0.42
1:C:248:TRP:CE2	1:G:505:VAL:HG11	2.54	0.42
1:C:375:LEU:CB	1:C:378:SER:HB3	2.42	0.42
1:E:160:LEU:N	1:E:160:LEU:CD2	2.82	0.42
1:E:178:GLN:CA	1:E:181:ASN:HD22	2.33	0.42
1:E:270:SER:CB	1:E:402:THR:OG1	2.68	0.42
1:E:400:ILE:HG23	1:E:400:ILE:O	2.19	0.42
1:G:178:GLN:NE2	1:G:182:ASN:ND2	2.67	0.42
1:G:176:PHE:HB2	1:G:197:PHE:HE1	1.83	0.42
1:G:196:GLN:HG2	1:G:197:PHE:N	2.34	0.42
1:G:299:LEU:HD13	1:G:341:ILE:HD11	2.00	0.42
1:A:349:ALA:HA	1:A:353:ASP:OD2	2.19	0.42
1:A:485:GLU:HG2	1:A:488:PHE:HB2	2.00	0.42
1:C:198:ALA:O	1:C:199:PRO:C	2.58	0.42
1:C:211:THR:HA	1:C:214:MET:SD	2.59	0.42
1:C:241:PRO:HG2	1:C:244:ILE:CG1	2.50	0.42
1:C:272:GLY:HA3	1:C:298:PRO:CG	2.49	0.42
1:C:326:ASP:O	1:C:333:TRP:HZ2	2.02	0.42
1:C:287:ASN:HA	1:C:363:THR:C	2.39	0.42
1:E:95:VAL:HG13	1:G:63:MET:CB	2.50	0.42
1:C:140:GLY:HA3	1:G:138:LEU:HD21	2.01	0.42
1:G:177:ILE:CD1	1:G:465:TYR:HB2	2.49	0.42
1:G:194:TRP:HE3	1:G:204:SER:HB2	1.80	0.42
1:G:224:VAL:CG1	1:G:225:THR:H	2.32	0.42
1:G:263:ILE:O	1:G:404:ALA:HA	2.19	0.42
1:G:453:THR:HG23	1:G:487:ASN:ND2	2.35	0.42
1:G:79:GLU:C	1:G:81:ALA:N	2.73	0.42
1:G:89:MET:HE2	1:G:543:LEU:HD23	2.02	0.42
1:A:329:VAL:HG13	1:A:330:ASN:N	2.31	0.42
1:A:334:THR:CG2	1:A:354:THR:HG22	2.49	0.42
1:A:83:GLY:HA3	1:A:104:PHE:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:187:ARG:C	1:C:189:LEU:H	2.22	0.42
1:C:259:GLN:HG2	1:E:406:ASN:HD21	1.84	0.42
1:C:306:LEU:HD11	1:C:310:THR:O	2.20	0.42
1:C:238:PHE:CD1	1:C:432:CYS:HB3	2.55	0.42
1:C:548:THR:HB	1:C:550:VAL:CG2	2.50	0.42
2:D:594:GLN:CD	1:E:41:ALA:CB	2.87	0.42
1:E:106:LYS:HE3	1:E:115:SER:OG	2.20	0.42
1:E:542:ARG:O	1:E:543:LEU:C	2.57	0.42
1:G:238:PHE:CE2	1:G:240:ALA:HB3	2.55	0.42
1:G:544:GLN:O	1:G:545:MET:C	2.57	0.42
1:A:150:PHE:C	1:A:152:ALA:H	2.22	0.42
1:A:164:ASN:C	1:A:166:GLU:N	2.73	0.42
1:C:132:SER:C	1:C:134:SER:N	2.73	0.42
1:C:254:ILE:O	1:C:490:SER:O	2.37	0.42
1:A:395:PRO:CB	1:C:268:ARG:HB2	2.50	0.42
1:C:334:THR:HG22	1:C:356:SER:CA	2.49	0.42
1:C:556:ASN:C	1:C:556:ASN:ND2	2.72	0.42
2:D:565:ALA:C	2:D:567:ILE:N	2.71	0.42
1:E:180:LEU:HD12	1:E:180:LEU:N	2.35	0.42
1:E:424:VAL:HG12	1:E:427:TYR:HB3	2.01	0.42
1:E:524:GLN:HG3	1:E:525:PHE:CD1	2.54	0.42
2:F:583:LYS:O	2:F:587:GLN:HG3	2.19	0.42
1:C:141:LYS:NZ	1:G:133:GLU:O	2.53	0.42
1:G:208:LEU:HA	1:G:209:PRO:HD2	1.68	0.42
2:H:562:SER:HA	2:H:565:ALA:CB	2.49	0.42
1:A:85:PHE:O	1:A:89:MET:HG2	2.19	0.42
1:C:194:TRP:CZ3	1:C:204:SER:OG	2.72	0.42
1:C:553:ALA:C	1:C:555:ASP:N	2.73	0.42
1:E:134:SER:HB3	1:E:139:ASP:HB2	2.02	0.42
1:E:111:LEU:HD23	1:E:228:ARG:NH2	2.35	0.42
1:E:272:GLY:CA	1:E:298:PRO:HD3	2.50	0.42
1:E:43:ILE:HG22	1:E:44:LEU:N	2.34	0.42
1:E:548:THR:C	1:E:550:VAL:H	2.21	0.42
1:E:65:PRO:HA	1:E:66:PRO:HD2	1.74	0.42
1:E:82:VAL:O	1:E:83:GLY:C	2.57	0.42
2:F:570:GLY:O	2:F:573:GLY:N	2.53	0.42
2:F:584:GLY:O	2:F:588:GLN:HB2	2.20	0.42
1:G:196:GLN:HB2	1:G:202:TYR:CD2	2.54	0.42
1:G:313:THR:HA	1:G:325:ILE:HG22	2.02	0.42
1:G:307:THR:N	1:G:332:VAL:O	2.53	0.42
2:H:580:SER:O	2:H:581:VAL:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:180:LEU:HA	1:A:183:ILE:HG13	2.01	0.42
1:A:185:ASN:O	1:A:187:ARG:N	2.53	0.42
1:A:239:ASN:OD1	1:A:503:THR:OG1	2.38	0.42
1:A:357:PHE:CE1	1:A:369:TYR:HB2	2.55	0.42
1:C:313:THR:CG2	1:C:314:ASN:N	2.82	0.42
1:C:87:LYS:O	1:C:91:PRO:CD	2.63	0.42
1:E:197:PHE:HD2	1:E:203:TYR:CD2	2.38	0.42
1:E:272:GLY:C	1:E:475:LEU:HD12	2.41	0.42
1:E:149:SER:OG	1:E:442:HIS:CE1	2.73	0.42
1:E:93:GLY:C	1:E:97:SER:HB2	2.39	0.42
2:F:569:LEU:HD13	2:F:569:LEU:C	2.40	0.42
1:G:138:LEU:HD22	1:G:244:ILE:HD11	2.02	0.42
1:G:280:ASN:H	1:G:280:ASN:HD22	1.62	0.42
1:G:282:ILE:O	1:G:283:PHE:HB2	2.19	0.42
1:G:350:GLU:HG3	1:G:375:LEU:HD12	2.01	0.42
2:H:572:LEU:O	2:H:574:LYS:N	2.52	0.42
1:A:249:TRP:HB3	1:A:495:PHE:CD2	2.55	0.41
1:A:74:SER:O	1:A:75:ILE:CB	2.65	0.41
1:C:174:ASN:OD1	1:C:468:TYR:HA	2.19	0.41
1:C:297:THR:CB	1:C:298:PRO:CD	2.98	0.41
1:C:313:THR:OG1	1:C:333:TRP:CD1	2.73	0.41
1:C:148:ILE:HG12	1:C:412:MET:CE	2.50	0.41
1:C:499:SER:O	1:C:502:ALA:N	2.47	0.41
2:D:562:SER:O	2:D:565:ALA:HB3	2.20	0.41
1:E:114:TYR:CD1	1:E:114:TYR:C	2.93	0.41
1:E:304:VAL:HG22	1:E:321:PHE:HE1	1.85	0.41
1:E:232:LYS:HG2	1:E:442:HIS:HD2	1.85	0.41
1:G:143:TRP:CD1	1:G:498:ILE:HG22	2.54	0.41
1:G:162:ASN:HB2	1:G:201:TRP:CD2	2.55	0.41
1:G:444:LYS:O	1:G:444:LYS:CD	2.68	0.41
1:G:464:HIS:ND1	1:G:464:HIS:C	2.73	0.41
1:A:235:THR:HG23	1:A:507:LYS:CB	2.50	0.41
1:A:118:ALA:HB3	1:A:512:TRP:CE2	2.55	0.41
1:A:542:ARG:NE	2:B:583:LYS:HA	2.32	0.41
1:C:306:LEU:HA	1:C:333:TRP:HA	2.03	0.41
1:C:450:PHE:C	1:C:451:GLU:O	2.57	0.41
1:E:393:ILE:HG22	1:E:395:PRO:HD3	2.01	0.41
1:E:539:LEU:O	1:E:540:ALA:C	2.58	0.41
1:G:208:LEU:O	1:G:210:ASN:N	2.52	0.41
1:G:243:LEU:O	1:G:245:ASP:OD1	2.38	0.41
1:G:292:ILE:CG1	1:G:325:ILE:HG13	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:444:LYS:O	1:G:444:LYS:HD3	2.20	0.41
1:A:193:GLN:HG2	1:A:194:TRP:O	2.20	0.41
1:A:230:VAL:O	1:A:231:TYR:CB	2.68	0.41
1:A:543:LEU:O	1:A:547:LEU:HB2	2.21	0.41
1:C:176:PHE:O	1:C:177:ILE:C	2.59	0.41
1:C:232:LYS:O	1:C:233:GLY:O	2.37	0.41
1:C:235:THR:HG22	1:C:439:TYR:CG	2.54	0.41
1:C:245:ASP:O	1:C:247:GLY:N	2.54	0.41
1:C:394:THR:O	1:C:395:PRO:C	2.57	0.41
1:C:421:THR:HG21	1:G:123:ILE:CG1	2.49	0.41
1:E:217:ILE:H	1:E:217:ILE:HD13	1.85	0.41
1:E:276:VAL:HG11	1:E:369:TYR:CE2	2.55	0.41
1:C:448:PRO:CG	1:E:449:VAL:CG1	2.98	0.41
1:E:522:VAL:O	1:E:525:PHE:N	2.50	0.41
1:E:90:ASP:HB2	2:F:561:VAL:CG1	2.51	0.41
1:G:110:GLY:H	1:G:531:GLU:C	2.24	0.41
1:G:163:ILE:C	1:G:165:ASN:N	2.74	0.41
1:G:281:ALA:HB3	1:G:284:GLN:CG	2.29	0.41
1:A:248:TRP:CZ3	1:A:250:VAL:CG2	3.04	0.41
1:A:293:VAL:HG22	1:A:324:GLU:CG	2.51	0.41
1:A:131:VAL:CG2	1:A:500:GLN:HB3	2.49	0.41
1:A:532:GLU:HB3	1:E:542:ARG:NH1	2.36	0.41
1:A:539:LEU:O	1:A:540:ALA:C	2.59	0.41
2:B:583:LYS:HB3	2:B:583:LYS:HE2	1.89	0.41
1:C:106:LYS:HE3	1:C:115:SER:HG	1.83	0.41
1:C:107:VAL:O	1:C:530:ALA:HB3	2.21	0.41
1:C:405:VAL:HG13	1:C:406:ASN:N	2.35	0.41
1:C:450:PHE:O	1:C:451:GLU:O	2.39	0.41
1:C:539:LEU:O	1:C:540:ALA:C	2.59	0.41
1:E:63:MET:CE	1:G:101:LEU:HD23	2.50	0.41
1:A:113:ARG:NH2	1:E:443:TYR:HD2	2.17	0.41
1:A:158:ILE:HG22	1:A:159:ALA:N	2.35	0.41
1:A:178:GLN:O	1:A:182:ASN:ND2	2.54	0.41
1:A:289:VAL:HG13	1:A:327:GLY:CA	2.50	0.41
1:A:460:GLY:CA	1:A:481:VAL:HG22	2.50	0.41
1:C:106:LYS:HG3	1:C:117:ASP:CB	2.49	0.41
1:E:474:ALA:HB1	1:E:478:ARG:HH11	1.86	0.41
2:F:607:ILE:CA	2:F:610:VAL:HG23	2.49	0.41
2:F:614:LEU:HD23	2:F:617:SER:OG	2.21	0.41
1:G:150:PHE:O	1:G:152:ALA:N	2.48	0.41
1:G:84:TRP:NE1	1:G:230:VAL:HG12	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:133:GLU:N	1:G:283:PHE:CE2	2.66	0.41
1:G:469:ASP:C	1:G:471:GLU:N	2.72	0.41
2:H:582:ILE:O	2:H:583:LYS:C	2.59	0.41
1:A:156:ASN:ND2	1:A:508:THR:HG21	2.36	0.41
1:A:299:LEU:HD11	1:A:338:PRO:HD2	2.02	0.41
1:A:369:TYR:OH	1:A:392:SER:HB3	2.20	0.41
1:C:286:SER:O	1:C:364:ALA:HA	2.21	0.41
1:C:250:VAL:CG2	1:C:429:GLN:HB3	2.50	0.41
2:D:565:ALA:O	2:D:567:ILE:N	2.54	0.41
1:E:195:ALA:O	1:E:203:TYR:CD2	2.73	0.41
1:E:274:MET:HE2	1:E:294:TRP:NE1	2.32	0.41
1:E:149:SER:OG	1:E:442:HIS:NE2	2.43	0.41
1:E:534:ASP:HA	1:E:537:VAL:HB	2.02	0.41
1:E:554:ASP:O	2:F:557:PHE:N	2.54	0.41
1:G:332:VAL:CG2	1:G:358:SER:HB2	2.49	0.41
1:G:412:MET:SD	1:G:413:PRO:CD	3.04	0.41
1:G:237:GLU:HB2	1:G:507:LYS:HE3	2.01	0.41
1:A:182:ASN:OD1	1:A:474:ALA:N	2.53	0.41
1:A:217:ILE:HD11	1:E:465:TYR:O	2.21	0.41
1:A:348:PHE:CZ	1:A:372:SER:HA	2.55	0.41
1:A:334:THR:HG23	1:A:355:THR:O	2.21	0.41
1:A:410:ILE:O	1:A:463:PHE:HA	2.20	0.41
1:A:420:VAL:HG21	1:A:494:HIS:CD2	2.56	0.41
2:B:563:ALA:C	2:B:565:ALA:N	2.73	0.41
1:C:363:THR:CG2	1:C:365:ASP:H	2.12	0.41
1:C:363:THR:HG21	1:C:365:ASP:OD2	2.20	0.41
1:C:366:THR:HA	1:C:386:THR:HA	2.01	0.41
1:C:181:ASN:OD1	1:C:463:PHE:N	2.53	0.41
1:C:90:ASP:O	1:C:92:ALA:N	2.54	0.41
1:E:253:HIS:HD2	1:E:549:GLY:CA	2.27	0.41
1:E:306:LEU:HD21	1:E:309:GLY:O	2.20	0.41
1:E:304:VAL:CG2	1:E:321:PHE:HE1	2.33	0.41
1:E:250:VAL:CG1	1:E:427:TYR:CD2	3.03	0.41
2:F:562:SER:O	2:F:566:SER:HB2	2.19	0.41
1:G:137:PRO:HG2	1:G:140:GLY:HA3	2.03	0.41
1:G:174:ASN:O	1:G:175:THR:C	2.59	0.41
1:G:263:ILE:O	1:G:263:ILE:HG22	2.20	0.41
1:G:429:GLN:C	1:G:430:PHE:CD1	2.94	0.41
1:G:449:VAL:HG22	1:G:450:PHE:H	1.86	0.41
1:G:537:VAL:O	1:G:538:GLN:C	2.59	0.41
1:A:106:LYS:CG	1:A:117:ASP:HB3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:ASN:HA	1:A:200:GLY:O	2.19	0.41
1:A:262:THR:HG22	1:A:263:ILE:N	2.36	0.41
1:A:422:THR:O	1:A:422:THR:CG2	2.67	0.41
1:A:447:ASN:C	1:A:447:ASN:OD1	2.59	0.41
1:C:177:ILE:O	1:C:181:ASN:ND2	2.48	0.41
1:C:297:THR:CG2	1:C:298:PRO:HD3	2.50	0.41
1:C:362:ILE:CG2	1:C:362:ILE:O	2.69	0.41
1:C:453:THR:HG22	1:C:485:GLU:OE1	2.20	0.41
1:C:413:PRO:HB2	1:C:492:VAL:CG2	2.50	0.41
1:E:79:GLU:CB	1:E:101:LEU:HD12	2.44	0.41
1:C:446:ASN:ND2	1:E:226:GLN:OE1	2.54	0.41
1:E:296:ILE:HB	1:E:321:PHE:HD2	1.86	0.41
1:A:267:GLU:HG2	1:E:475:LEU:HD11	2.03	0.41
2:F:564:LEU:C	2:F:564:LEU:HD23	2.41	0.41
2:F:569:LEU:O	2:F:569:LEU:HD13	2.20	0.41
1:G:150:PHE:HB3	1:G:484:PHE:CE1	2.56	0.41
1:G:197:PHE:CG	1:G:198:ALA:N	2.89	0.41
1:G:248:TRP:CD1	1:G:431:LEU:CD2	2.97	0.41
1:G:400:ILE:HG12	1:G:401:ASP:N	2.35	0.41
1:G:249:TRP:NE1	1:G:430:PHE:HB2	2.35	0.41
1:G:537:VAL:HG12	1:G:541:ASN:ND2	2.36	0.41
1:G:552:GLN:O	1:G:554:ASP:N	2.49	0.41
1:A:325:ILE:HB	1:A:333:TRP:CE2	2.56	0.41
1:A:359:MET:CE	1:A:367:VAL:HG11	2.51	0.41
1:A:485:GLU:C	1:A:487:ASN:N	2.74	0.41
1:A:436:GLY:N	1:A:554:ASP:OD1	2.54	0.41
2:B:582:ILE:O	2:B:585:ILE:HB	2.21	0.41
1:C:453:THR:CG2	1:C:485:GLU:OE1	2.68	0.41
1:C:481:VAL:O	1:C:481:VAL:HG12	2.19	0.41
1:E:460:GLY:HA2	1:E:480:ILE:O	2.20	0.41
1:E:235:THR:O	1:E:506:CYS:HA	2.21	0.41
1:E:528:THR:HG22	1:E:529:GLY:N	2.35	0.41
1:C:429:GLN:HE22	1:E:58:GLY:C	2.24	0.41
1:E:535:GLU:OE2	2:F:577:ALA:HB3	2.21	0.41
1:A:151:PRO:HB2	1:A:485:GLU:CB	2.44	0.41
1:C:117:ASP:N	1:C:117:ASP:OD2	2.53	0.41
1:C:210:ASN:O	1:C:214:MET:HG3	2.20	0.41
1:C:266:ALA:HB3	1:C:270:SER:CB	2.47	0.41
1:C:297:THR:CG2	1:C:298:PRO:CD	2.97	0.41
1:C:342:LEU:HD23	1:C:347:PRO:HA	2.02	0.41
1:C:469:ASP:OD2	1:C:471:GLU:CB	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:425:PRO:HG3	1:C:526:ALA:O	2.21	0.41
1:C:535:GLU:O	1:C:538:GLN:HB3	2.19	0.41
1:C:89:MET:HB2	1:C:89:MET:HE2	1.83	0.41
1:E:116:VAL:HG22	1:E:117:ASP:N	2.36	0.41
1:E:354:THR:H	1:E:374:SER:HG	1.59	0.41
1:E:182:ASN:O	1:E:478:ARG:HD3	2.21	0.41
1:G:160:LEU:HD11	1:G:201:TRP:CZ3	2.56	0.41
1:A:267:GLU:HG2	1:E:475:LEU:HG	2.03	0.41
1:A:178:GLN:HE22	1:A:390:GLY:HA2	1.84	0.41
1:A:248:TRP:NE1	1:A:496:TRP:CE3	2.85	0.41
1:A:545:MET:C	1:A:547:LEU:N	2.75	0.41
1:A:542:ARG:HD2	2:B:582:ILE:HG22	2.02	0.41
1:C:213:ALA:O	1:C:215:ALA:N	2.54	0.41
1:C:241:PRO:O	1:C:242:THR:C	2.60	0.41
1:C:296:ILE:HD12	1:C:299:LEU:HD22	2.03	0.41
1:C:253:HIS:CE1	1:C:442:HIS:HA	2.56	0.41
1:C:445:MET:O	1:C:445:MET:CG	2.67	0.41
1:C:178:GLN:HB3	1:C:472:ASN:HD21	1.85	0.41
1:C:145:VAL:CG1	1:C:495:PHE:HB2	2.50	0.41
1:C:87:LYS:HZ1	1:C:95:VAL:HG23	1.85	0.41
1:E:120:GLN:C	1:E:122:PRO:HD2	2.40	0.41
1:E:177:ILE:O	1:E:179:THR:N	2.54	0.41
1:A:455:GLU:C	1:E:259:GLN:HG2	2.42	0.41
2:F:557:PHE:O	2:F:558:ALA:C	2.57	0.41
1:G:362:ILE:HG22	1:G:367:VAL:CG1	2.41	0.41
1:G:269:PHE:CB	1:G:397:THR:HG23	2.51	0.41
1:G:265:ALA:HB2	1:G:404:ALA:HB2	2.01	0.41
1:G:182:ASN:OD1	1:G:474:ALA:N	2.54	0.41
1:G:541:ASN:C	1:G:543:LEU:N	2.75	0.41
1:A:198:ALA:CB	1:A:199:PRO:HD2	2.33	0.40
1:A:201:TRP:C	1:A:202:TYR:CD1	2.94	0.40
1:A:181:ASN:O	1:A:478:ARG:HB2	2.21	0.40
2:B:581:VAL:CG1	2:B:585:ILE:HD11	2.50	0.40
1:C:251:GLY:O	1:C:252:ALA:HB2	2.21	0.40
1:C:435:SER:C	1:C:437:GLY:N	2.74	0.40
1:C:439:TYR:CD2	1:C:556:ASN:HA	2.55	0.40
1:E:552:GLN:C	1:E:554:ASP:N	2.74	0.40
1:G:121:ARG:HH11	1:G:121:ARG:CG	2.28	0.40
1:G:142:LEU:C	1:G:165:ASN:ND2	2.75	0.40
1:G:183:ILE:HG21	1:G:186:TRP:HA	2.03	0.40
1:G:172:THR:HG21	1:G:201:TRP:CE2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:275:THR:HG23	1:G:478:ARG:NH1	2.36	0.40
1:G:386:THR:O	1:G:387:LYS:C	2.59	0.40
1:G:174:ASN:ND2	1:G:468:TYR:HD1	2.12	0.40
1:G:453:THR:HG21	1:G:486:ASN:N	2.36	0.40
2:H:564:LEU:C	2:H:566:SER:N	2.73	0.40
2:H:568:GLY:O	2:H:569:LEU:C	2.58	0.40
1:A:412:MET:HG2	1:A:463:PHE:CB	2.50	0.40
1:A:412:MET:HA	1:A:413:PRO:HD2	1.81	0.40
1:A:255:PRO:HB3	1:A:445:MET:SD	2.61	0.40
1:A:148:ILE:HG23	1:A:492:VAL:HG12	2.02	0.40
1:A:82:VAL:O	1:A:85:PHE:HB3	2.21	0.40
1:C:101:LEU:HD12	1:C:101:LEU:O	2.22	0.40
1:E:278:ALA:HB2	1:E:385:VAL:CG2	2.45	0.40
1:E:342:LEU:O	1:E:343:ALA:CB	2.68	0.40
1:E:40:GLN:N	1:E:71:CYS:HB2	2.36	0.40
1:E:275:THR:HG22	1:E:478:ARG:HH22	1.86	0.40
2:F:605:LYS:HG2	2:F:610:VAL:HG21	2.03	0.40
1:G:164:ASN:HD21	1:G:166:GLU:CD	2.25	0.40
1:G:380:VAL:HG12	1:G:381:ILE:N	2.36	0.40
1:G:420:VAL:O	1:G:422:THR:N	2.55	0.40
1:A:198:ALA:HB3	1:A:201:TRP:CD1	2.56	0.40
2:B:565:ALA:O	2:B:566:SER:C	2.59	0.40
2:B:580:SER:HB2	1:C:75:ILE:HG22	2.03	0.40
1:C:164:ASN:HD21	1:C:200:GLY:HA3	1.81	0.40
1:C:209:PRO:HG2	1:C:210:ASN:OD1	2.21	0.40
1:C:277:SER:OG	1:C:293:VAL:HB	2.22	0.40
1:C:87:LYS:HZ1	1:C:95:VAL:CG2	2.34	0.40
1:E:191:THR:OG1	1:E:193:GLN:HG2	2.21	0.40
1:E:272:GLY:HA2	1:E:297:THR:CG2	2.51	0.40
1:E:228:ARG:CG	1:E:452:MET:HE1	2.50	0.40
1:G:156:ASN:HB2	1:G:208:LEU:CD2	2.49	0.40
1:G:158:ILE:HG22	1:G:159:ALA:O	2.22	0.40
1:G:185:ASN:HD21	1:G:320:PHE:H	1.70	0.40
1:G:282:ILE:HG22	1:G:283:PHE:CD1	2.57	0.40
1:G:299:LEU:HD23	1:G:321:PHE:CB	2.51	0.40
1:G:185:ASN:HD21	1:G:320:PHE:HB2	1.86	0.40
1:G:397:THR:HG22	1:G:397:THR:O	2.21	0.40
1:G:49:LEU:HB2	1:G:52:GLU:CG	2.45	0.40
1:G:522:VAL:O	1:G:523:GLY:C	2.58	0.40
1:G:526:ALA:O	1:G:527:HIS:HB3	2.21	0.40
1:G:542:ARG:HD3	2:H:583:LYS:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:370:SER:CB	1:C:381:ILE:O	2.70	0.40
1:C:85:PHE:HE2	2:D:565:ALA:HB1	1.86	0.40
1:E:169:THR:HB	1:E:172:THR:CB	2.49	0.40
1:E:412:MET:O	1:E:465:TYR:CE1	2.74	0.40
1:E:484:PHE:O	1:E:486:ASN:N	2.55	0.40
2:F:578:THR:O	2:F:580:SER:N	2.55	0.40
2:F:588:GLN:HG3	2:F:594:GLN:HB3	2.03	0.40
1:G:133:GLU:O	1:G:135:ASP:N	2.55	0.40
1:G:183:ILE:CG2	1:G:186:TRP:HA	2.50	0.40
1:A:262:THR:HG23	1:A:406:ASN:HB3	2.03	0.40
1:A:451:GLU:HG3	1:E:447:ASN:OD1	2.21	0.40
1:A:445:MET:O	1:C:111:LEU:HD11	2.21	0.40
1:C:421:THR:HB	1:G:121:ARG:O	2.21	0.40
1:C:510:ASP:OD1	1:C:511:GLY:N	2.55	0.40
1:E:250:VAL:HG13	1:E:427:TYR:CD2	2.56	0.40
2:D:594:GLN:CG	1:E:41:ALA:HB1	2.52	0.40
1:A:528:THR:OG1	1:E:426:LYS:NZ	2.54	0.40
1:E:429:GLN:C	1:E:429:GLN:CD	2.79	0.40
1:E:528:THR:CG2	1:E:529:GLY:N	2.84	0.40
1:G:70:ILE:HD12	1:G:82:VAL:HG21	2.03	0.40
2:H:582:ILE:O	2:H:585:ILE:N	2.53	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	482/556 (87%)	357 (74%)	80 (17%)	45 (9%)	0	11
1	C	482/556 (87%)	358 (74%)	74 (15%)	50 (10%)	0	9
1	E	515/556 (93%)	379 (74%)	95 (18%)	41 (8%)	1	14
1	G	516/556 (93%)	373 (72%)	87 (17%)	56 (11%)	0	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	37/75 (49%)	21 (57%)	12 (32%)	4 (11%)	0	8
2	D	38/75 (51%)	30 (79%)	6 (16%)	2 (5%)	2	23
2	F	65/75 (87%)	47 (72%)	12 (18%)	6 (9%)	1	12
2	H	36/75 (48%)	16 (44%)	16 (44%)	4 (11%)	0	7
All	All	2171/2524 (86%)	1581 (73%)	382 (18%)	208 (10%)	0	10

All (208) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	209	PRO
1	A	297	THR
1	A	318	GLY
1	A	405	VAL
1	A	455	GLU
1	A	474	ALA
1	C	209	PRO
1	C	260	SER
1	C	286	SER
1	C	351	GLU
1	C	486	ASN
1	C	536	VAL
1	E	223	SER
1	E	395	PRO
1	E	475	LEU
1	E	476	GLY
1	E	537	VAL
2	F	577	ALA
2	F	618	ILE
1	G	133	GLU
1	G	135	ASP
1	G	387	LYS
1	G	475	LEU
1	G	476	GLY
1	G	528	THR
1	A	129	PRO
1	A	214	MET
1	A	231	TYR
1	A	282	ILE
1	A	311	GLY
1	A	414	ALA
1	A	418	GLU

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Mol	Chain	Res	Type
1	A	436	GLY
1	A	534	ASP
1	A	538	GLN
1	A	540	ALA
1	A	554	ASP
2	B	576	SER
2	B	582	ILE
1	C	143	TRP
1	C	176	PHE
1	C	177	ILE
1	C	210	ASN
1	C	218	GLY
1	C	225	THR
1	C	233	GLY
1	C	353	ASP
1	C	436	GLY
1	C	444	LYS
1	C	451	GLU
1	C	485	GLU
1	C	523	GLY
1	E	66	PRO
1	E	110	GLY
1	E	132	SER
1	E	140	GLY
1	E	209	PRO
1	E	434	GLU
1	E	436	GLY
1	E	444	LYS
1	E	485	GLU
2	F	602	GLY
1	G	56	PRO
1	G	57	SER
1	G	110	GLY
1	G	126	ILE
1	G	289	VAL
1	G	329	VAL
1	G	420	VAL
1	G	421	THR
1	G	436	GLY
1	G	454	GLY
1	G	456	GLU
1	G	482	ASP

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Mol	Chain	Res	Type
2	H	590	VAL
1	A	186	TRP
1	A	351	GLU
1	A	422	THR
1	A	446	ASN
1	A	456	GLU
1	A	545	MET
1	A	546	GLU
2	B	572	LEU
2	B	589	ALA
1	C	126	ILE
1	C	184	THR
1	C	214	MET
1	C	242	THR
1	C	250	VAL
1	C	285	PRO
1	C	287	ASN
1	C	414	ALA
1	C	450	PHE
1	C	488	PHE
1	C	532	GLU
1	C	554	ASP
2	D	572	LEU
1	E	50	PRO
1	E	91	PRO
1	E	177	ILE
1	E	199	PRO
1	E	231	TYR
1	E	242	THR
1	E	316	THR
1	E	329	VAL
1	E	343	ALA
1	E	375	LEU
1	E	417	THR
1	E	455	GLU
1	E	519	GLY
1	E	523	GLY
1	E	534	ASP
2	F	620	ALA
1	G	85	PHE
1	G	160	LEU
1	G	182	ASN

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Mol	Chain	Res	Type
1	G	186	TRP
1	G	197	PHE
1	G	209	PRO
1	G	231	TYR
1	G	244	ILE
1	G	285	PRO
1	G	286	SER
1	G	486	ASN
1	G	527	HIS
2	H	573	GLY
1	A	85	PHE
1	A	115	SER
1	A	170	LEU
1	A	177	ILE
1	A	178	GLN
1	A	184	THR
1	A	210	ASN
1	A	264	PRO
1	A	486	ASN
1	C	88	TYR
1	C	91	PRO
1	C	231	TYR
1	C	252	ALA
1	C	305	ALA
1	C	425	PRO
1	C	501	SER
2	D	564	LEU
1	E	64	ASP
1	E	94	ALA
1	E	226	GLN
2	F	596	ASN
1	G	91	PRO
1	G	141	LYS
1	G	219	ASP
1	G	245	ASP
1	G	303	THR
1	G	443	TYR
1	G	544	GLN
2	H	577	ALA
1	A	75	ILE
1	A	134	SER
1	A	173	ARG

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Mol	Chain	Res	Type
1	A	285	PRO
1	A	387	LYS
1	C	82	VAL
1	C	139	ASP
1	C	162	ASN
1	C	199	PRO
1	C	318	GLY
1	C	534	ASP
1	E	103	GLU
1	E	118	ALA
1	E	297	THR
1	E	451	GLU
1	E	536	VAL
1	E	553	ALA
1	G	73	GLN
1	G	82	VAL
1	G	84	TRP
1	G	118	ALA
1	G	134	SER
1	G	164	ASN
1	G	165	ASN
1	G	217	ILE
1	G	297	THR
1	G	318	GLY
1	G	388	GLY
1	G	523	GLY
1	G	553	ALA
1	A	77	PRO
1	A	280	ASN
1	A	524	GLN
1	C	297	THR
2	F	558	ALA
1	G	334	THR
1	G	537	VAL
1	A	217	ILE
1	A	345	GLY
1	E	467	GLY
1	G	163	ILE
1	G	208	LEU
1	E	298	PRO
1	G	466	PRO
1	A	98	GLY

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Mol	Chain	Res	Type
1	C	311	GLY
1	C	312	GLY
1	C	347	PRO
1	E	121	ARG
1	C	98	GLY
1	C	129	PRO
1	G	276	VAL
2	H	581	VAL

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	403/466 (86%)	339 (84%)	64 (16%)	2	16
1	C	403/466 (86%)	348 (86%)	55 (14%)	3	22
1	E	429/466 (92%)	385 (90%)	44 (10%)	7	31
1	G	430/466 (92%)	376 (87%)	54 (13%)	4	24
2	B	25/49 (51%)	22 (88%)	3 (12%)	5	25
2	D	26/49 (53%)	21 (81%)	5 (19%)	1	10
2	F	43/49 (88%)	36 (84%)	7 (16%)	2	15
2	H	25/49 (51%)	21 (84%)	4 (16%)	2	16
All	All	1784/2060 (87%)	1548 (87%)	236 (13%)	4	22

All (236) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	73	GLN
1	A	79	GLU
1	A	113	ARG
1	A	121	ARG
1	A	124	VAL
1	A	127	GLU
1	A	136	LEU

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Mol	Chain	Res	Type
1	A	142	LEU
1	A	160	LEU
1	A	163	ILE
1	A	165	ASN
1	A	171	GLU
1	A	178	GLN
1	A	181	ASN
1	A	184	THR
1	A	191	THR
1	A	193	GLN
1	A	204	SER
1	A	207	VAL
1	A	210	ASN
1	A	221	THR
1	A	225	THR
1	A	228	ARG
1	A	231	TYR
1	A	235	THR
1	A	243	LEU
1	A	246	GLN
1	A	258	PRO
1	A	261	GLU
1	A	264	PRO
1	A	282	ILE
1	A	284	GLN
1	A	294	TRP
1	A	295	SER
1	A	307	THR
1	A	310	THR
1	A	315	ASN
1	A	329	VAL
1	A	356	SER
1	A	366	THR
1	A	369	TYR
1	A	371	VAL
1	A	382	VAL
1	A	383	ARG
1	A	386	THR
1	A	401	ASP
1	A	402	THR
1	A	403	GLU
1	A	406	ASN

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Mol	Chain	Res	Type
1	A	412	MET
1	A	417	THR
1	A	433	LYS
1	A	443	TYR
1	A	447	ASN
1	A	461	PHE
1	A	486	ASN
1	A	508	THR
1	A	510	ASP
1	A	532	GLU
1	A	534	ASP
1	A	539	LEU
1	A	545	MET
1	A	554	ASP
1	A	556	ASN
2	B	567	ILE
2	B	580	SER
2	B	590	VAL
1	C	75	ILE
1	C	76	ASP
1	C	79	GLU
1	C	96	GLU
1	C	101	LEU
1	C	104	PHE
1	C	113	ARG
1	C	121	ARG
1	C	124	VAL
1	C	127	GLU
1	C	136	LEU
1	C	139	ASP
1	C	154	ARG
1	C	155	LEU
1	C	156	ASN
1	C	160	LEU
1	C	165	ASN
1	C	178	GLN
1	C	204	SER
1	C	234	ILE
1	C	244	ILE
1	C	245	ASP
1	C	246	GLN
1	C	262	THR

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Mol	Chain	Res	Type
1	C	263	ILE
1	C	267	GLU
1	C	288	THR
1	C	291	ARG
1	C	292	ILE
1	C	315	ASN
1	C	316	THR
1	C	328	ASN
1	C	336	THR
1	C	359	MET
1	C	361	THR
1	C	369	TYR
1	C	371	VAL
1	C	401	ASP
1	C	403	GLU
1	C	405	VAL
1	C	407	ARG
1	C	416	THR
1	C	453	THR
1	C	455	GLU
1	C	457	ASN
1	C	483	THR
1	C	485	GLU
1	C	488	PHE
1	C	501	SER
1	C	525	PHE
1	C	542	ARG
1	C	545	MET
1	C	548	THR
1	C	551	TYR
1	C	556	ASN
2	D	557	PHE
2	D	564	LEU
2	D	574	LYS
2	D	593	VAL
2	D	594	GLN
1	E	48	LEU
1	E	76	ASP
1	E	104	PHE
1	E	114	TYR
1	E	121	ARG
1	E	124	VAL

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Mol	Chain	Res	Type
1	E	157	PHE
1	E	178	GLN
1	E	189	LEU
1	E	194	TRP
1	E	209	PRO
1	E	217	ILE
1	E	223	SER
1	E	243	LEU
1	E	245	ASP
1	E	246	GLN
1	E	255	PRO
1	E	259	GLN
1	E	275	THR
1	E	283	PHE
1	E	292	ILE
1	E	297	THR
1	E	313	THR
1	E	323	VAL
1	E	360	THR
1	E	361	THR
1	E	366	THR
1	E	374	SER
1	E	386	THR
1	E	394	THR
1	E	412	MET
1	E	429	GLN
1	E	430	PHE
1	E	440	ILE
1	E	444	LYS
1	E	452	MET
1	E	462	GLN
1	E	494	HIS
1	E	508	THR
1	E	515	THR
1	E	533	GLU
1	E	548	THR
1	E	551	TYR
1	E	556	ASN
2	F	564	LEU
2	F	567	ILE
2	F	574	LYS
2	F	594	GLN

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Mol	Chain	Res	Type
2	F	601	GLU
2	F	605	LYS
2	F	622	ARG
1	G	39	GLU
1	G	57	SER
1	G	63	MET
1	G	79	GLU
1	G	95	VAL
1	G	99	LYS
1	G	121	ARG
1	G	143	TRP
1	G	144	ARG
1	G	168	LEU
1	G	169	THR
1	G	178	GLN
1	G	188	ASP
1	G	189	LEU
1	G	191	THR
1	G	194	TRP
1	G	210	ASN
1	G	217	ILE
1	G	220	ARG
1	G	229	LYS
1	G	269	PHE
1	G	274	MET
1	G	280	ASN
1	G	291	ARG
1	G	292	ILE
1	G	301	VAL
1	G	308	THR
1	G	313	THR
1	G	315	ASN
1	G	355	THR
1	G	356	SER
1	G	371	VAL
1	G	376	THR
1	G	383	ARG
1	G	386	THR
1	G	405	VAL
1	G	417	THR
1	G	429	GLN
1	G	444	LYS

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Mol	Chain	Res	Type
1	G	446	ASN
1	G	456	GLU
1	G	458	PHE
1	G	461	PHE
1	G	464	HIS
1	G	486	ASN
1	G	500	GLN
1	G	508	THR
1	G	524	GLN
1	G	527	HIS
1	G	528	THR
1	G	544	GLN
1	G	545	MET
1	G	546	GLU
1	G	547	LEU
2	H	564	LEU
2	H	571	LEU
2	H	578	THR
2	H	590	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	120	GLN
1	A	259	GLN
1	C	120	GLN
1	C	181	ASN
1	C	462	GLN
1	C	464	HIS
1	G	47	GLN
1	G	120	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
3	R	3/4 (75%)	3 (100%)	0

All (3) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
3	R	2	U
3	R	3	U
3	R	4	U

There are no RNA pucker outliers to report.

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

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

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

Of 2 ligands modelled in this entry, 2 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

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

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

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	484/556 (87%)	-0.50	0 100 100	7, 20, 30, 48	0
1	C	484/556 (87%)	-0.49	0 100 100	8, 19, 30, 43	0
1	E	517/556 (92%)	-0.49	0 100 100	7, 21, 33, 52	0
1	G	518/556 (93%)	-0.51	0 100 100	7, 20, 31, 53	0
2	B	39/75 (52%)	-0.53	0 100 100	10, 20, 36, 40	0
2	D	40/75 (53%)	-0.51	0 100 100	10, 21, 35, 40	0
2	F	67/75 (89%)	-0.36	0 100 100	13, 20, 35, 39	0
2	H	38/75 (50%)	-0.54	0 100 100	11, 18, 29, 38	0
3	R	4/4 (100%)	0.18	0 100 100	54, 56, 57, 61	0
All	All	2191/2528 (86%)	-0.50	0 100 100	7, 20, 32, 61	0

There are no RSRZ outliers to report.

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

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

### 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

### 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q< 0.9’ lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
4	CA	A	557	1/1	0.98	0.10	44,44,44,44	0
4	CA	G	557	1/1	0.99	0.04	73,73,73,73	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.