



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:07 PM GMT

PDB ID : 4WQS
Title : Thermus thermophilus RNA polymerase backtracked complex
Authors : Murayama, Y.; Sekine, S.; Yokoyama, S.
Deposited on : 2014-10-22
Resolution : 4.31 Å(reported)

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

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

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

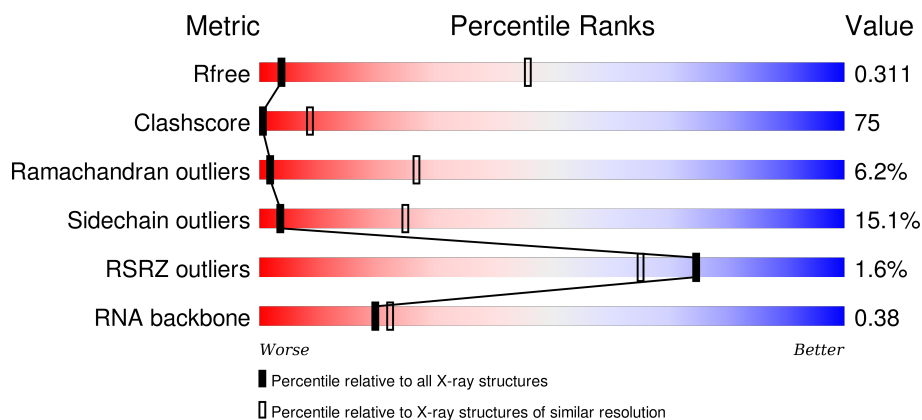
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.31 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1059 (5.00-3.60)
Clashscore	102246	1166 (5.00-3.60)
Ramachandran outliers	100387	1106 (5.00-3.60)
Sidechain outliers	100360	1089 (5.00-3.60)
RSRZ outliers	91569	1062 (5.00-3.60)
RNA backbone	2183	1087 (5.60-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	315	
1	B	315	
1	K	315	
1	L	315	

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Mol	Chain	Length	Quality of chain
2	C	1119	
2	M	1119	
3	D	1524	
3	N	1524	
4	E	99	
4	O	99	
5	G	28	
5	X	28	
6	H	16	
6	Y	16	
7	I	21	
7	Z	21	

2 Entry composition

There are 8 unique types of molecules in this entry. The entry contains 48166 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	B	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	K	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	L	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			
2	M	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			

- Molecule 3 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	1151	Total	C	N	O	S	0	0	0
			9097	5753	1629	1682	33			
3	N	1288	Total	C	N	O	S	0	0	0
			10175	6441	1804	1899	31			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	E	95	Total	C	N	O	S	0	0	0
			770	491	133	142	4			
4	O	95	Total	C	N	O	S	0	0	0
			770	491	133	142	4			

- Molecule 5 is a DNA chain called DNA (28-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	G	27	Total	C	N	O	P	0	0	0
			548	259	104	158	27			
5	X	27	Total	C	N	O	P	0	0	0
			548	259	104	158	27			

- Molecule 6 is a RNA chain called RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP*CP*UP*CP*GP*CP*A)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	H	16	Total	C	N	O	P	0	0	0
			340	151	61	112	16			
6	Y	15	Total	C	N	O	P	0	0	0
			318	141	56	106	15			

- Molecule 7 is a DNA chain called DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP*GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	I	17	Total	C	N	O	P	0	0	0
			357	169	65	106	17			
7	Z	17	Total	C	N	O	P	0	0	0
			357	169	65	106	17			

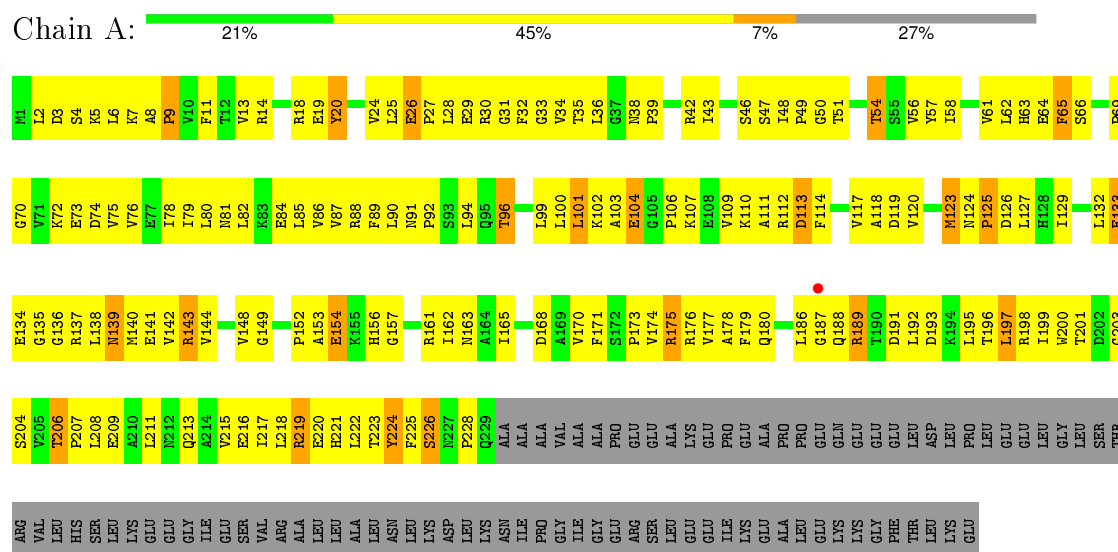
- Molecule 8 is ZINC ION (three-letter code: ZN) (formula: Zn).

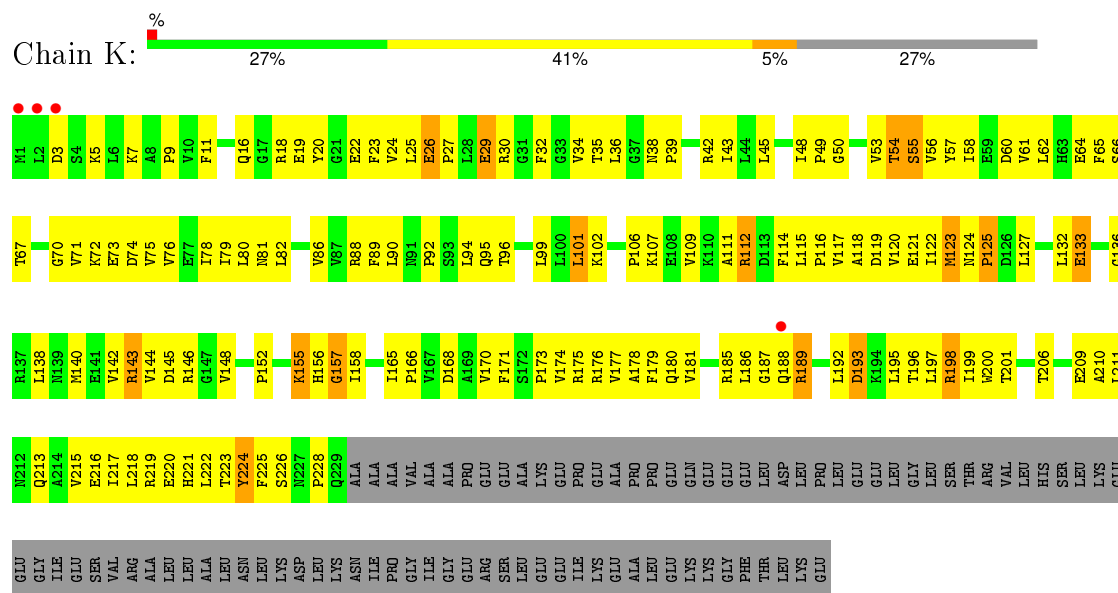
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	D	2	Total	Zn	0	0
			2	2		
8	N	2	Total	Zn	0	0
			2	2		

3 Residue-property plots

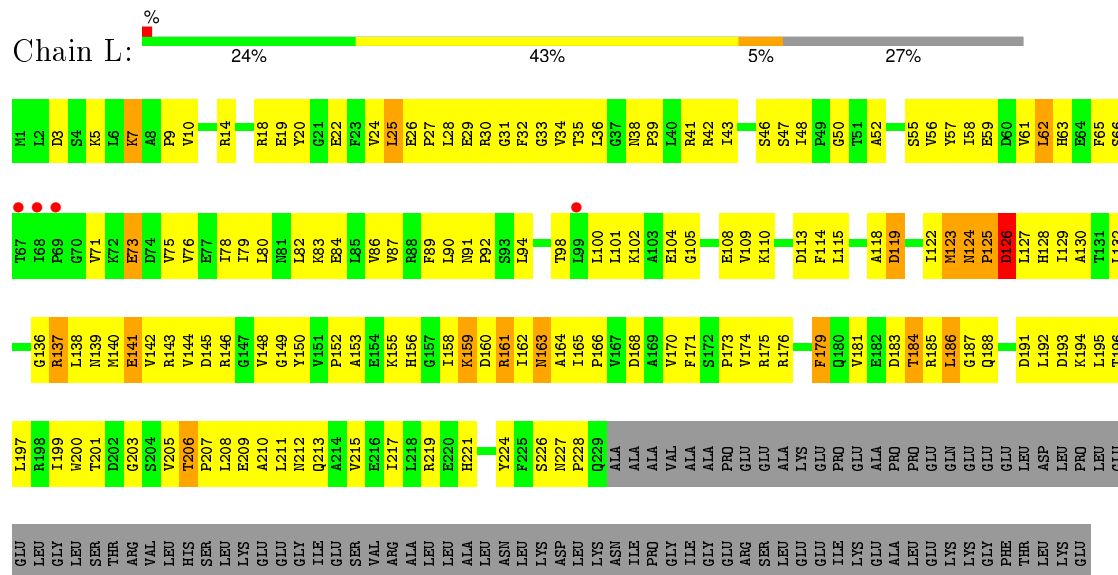
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according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

• Molecule 1: DNA-directed RNA polymerase subunit alpha

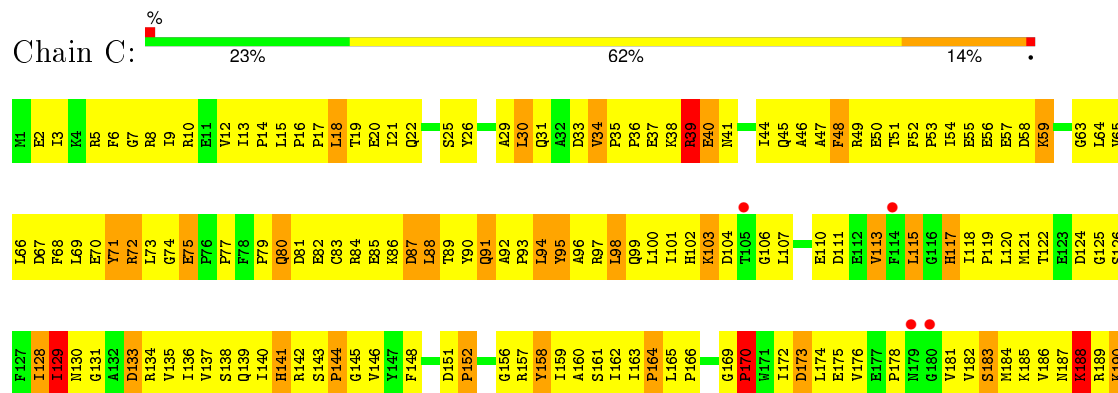


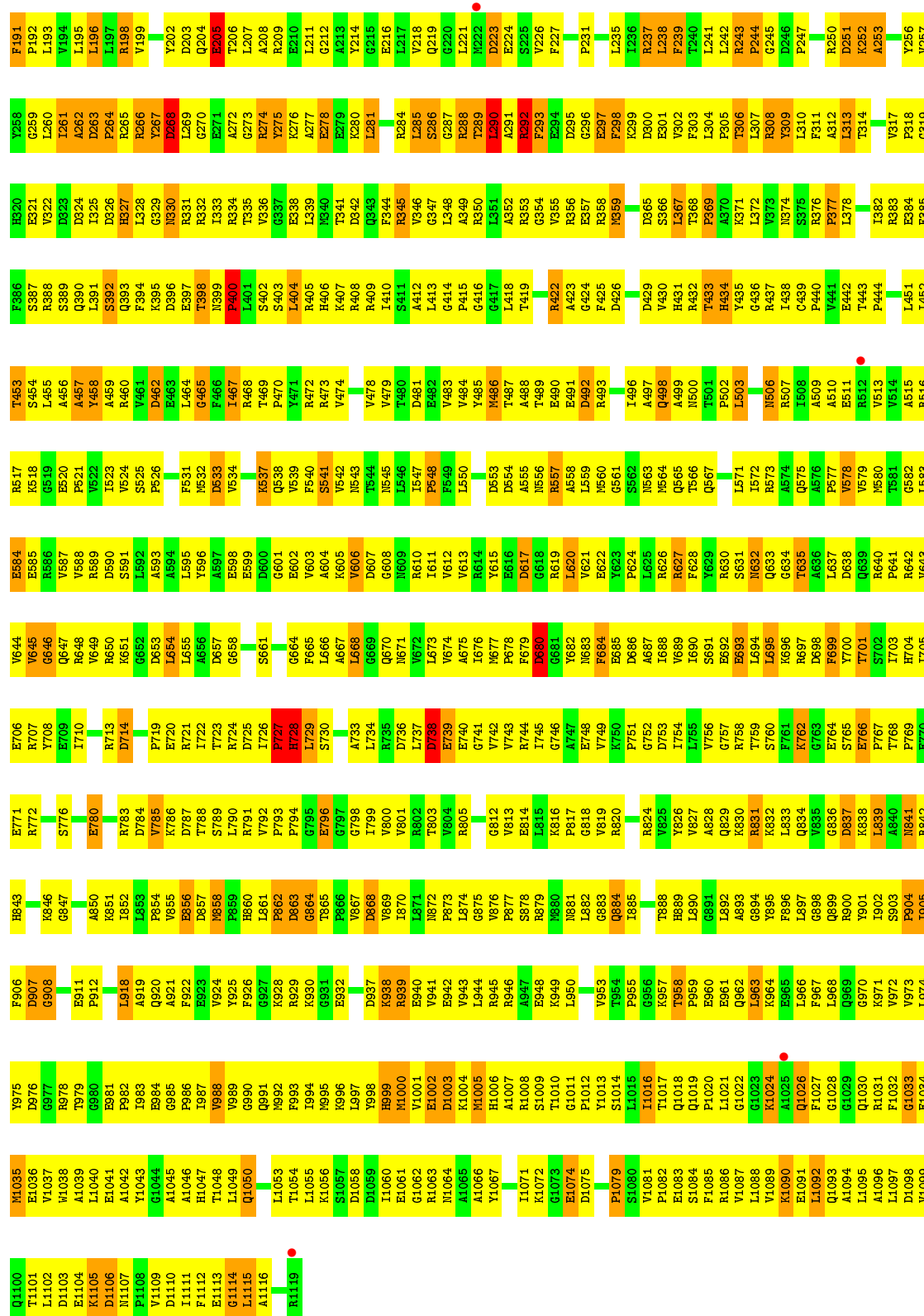


- Molecule 1: DNA-directed RNA polymerase subunit alpha

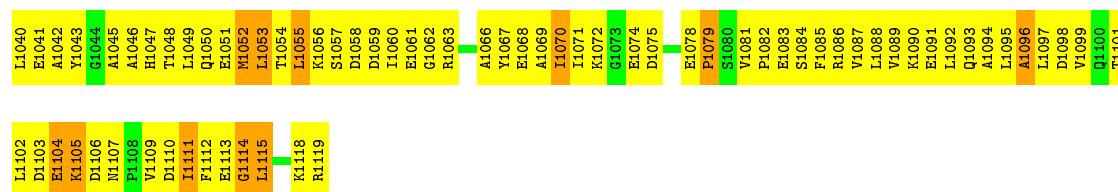


- Molecule 2: DNA-directed RNA polymerase subunit beta

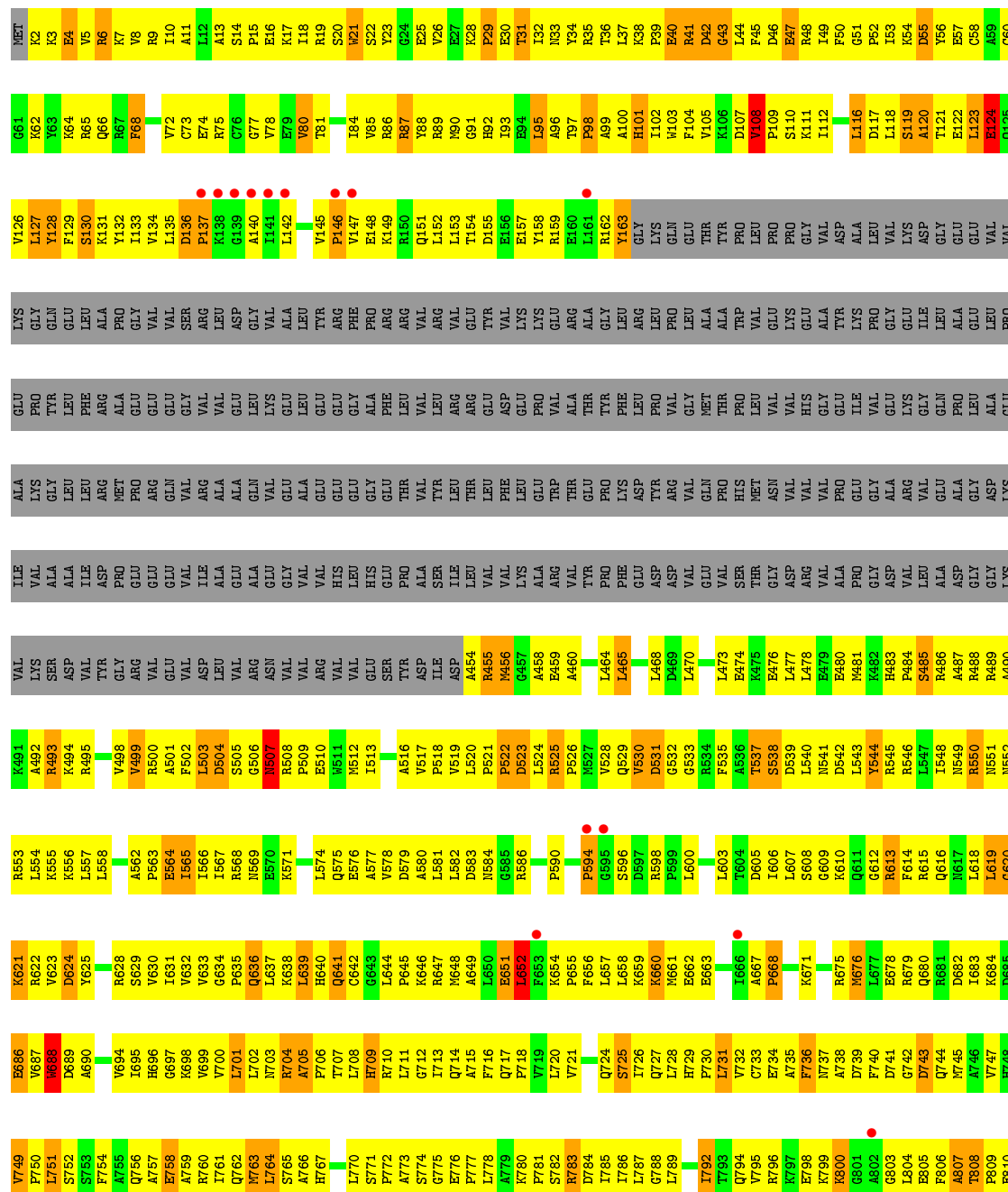
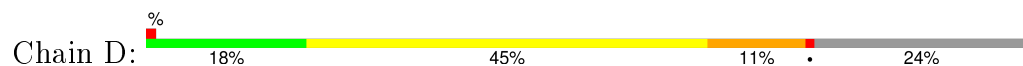


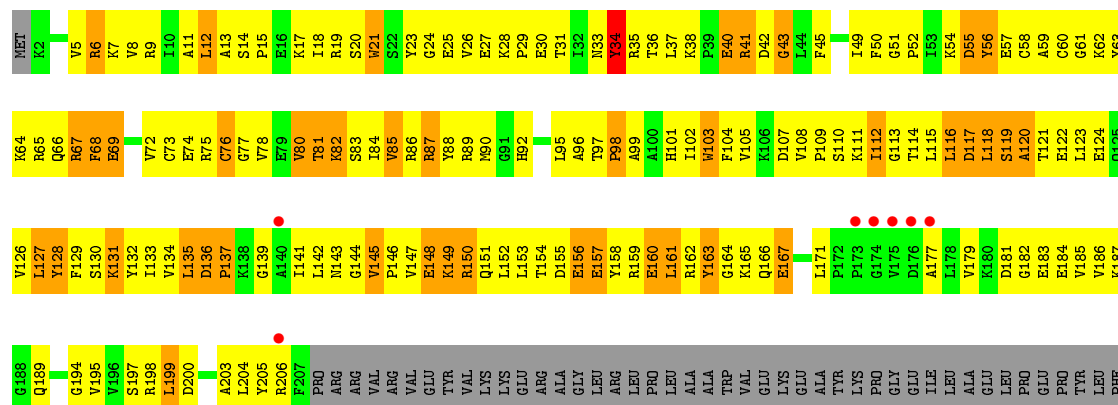


G977	R978	R979	G980	A980	G981	G982	G983	G984	G985	G986	G987	G988	G989	G990	G991	G992	G993	G994	G995	G996	G997	G998	G999	M1000	M1001	E1002	D1003	K1004	M1005	M1006	A1007	R1008	S1009	T1010	P1011	P1012	Y1013	S1014	L1015	T1016	T1017	Q1018	Q1019	P1020	L1021	G1022	Q1026	F1027	G1028	R1031	F1032	G1033	E1034	M1035	E1036	T1037	M1038	A1039																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
H843	G844	H845	K846	G847	H848	H849	A850	K851	L852	L853	H854	H855	E856	H857	H858	L861	H862	H863	G864	H865	H866	H867	H868	H869	L870	L871	H872	H873	H874	H875	H876	H877	H878	H879	H880	H881	L882	Q883	Q884	L885	L886	H887	H888	H889	L892	L893	L894	L895	L896	F1027	G1028	L897	Q898	G899	K900	Y901	I902	S903	P904	I905																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
E771	R772	L773	L774	R775	L776	L777	E780	K781	L782	L783	H784	H785	H786	K787	H788	L789	H790	H791	H792	H793	H794	L799	H805	R808	H809	H810	H811	H812	H813	H814	H815	H816	H817	H818	H819	H820	H821	H822	H823	H824	H825	H826	H827	H828	H829	H830	H831	H832	L833	Q834	H837	K838	L839	A840	H841	H842																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
I705	E706	R707	R708	R709	R710	E711	L712	R713	H714	H715	G718	H719	E720	R721	L722	H723	H724	H725	H726	H727	H728	H729	H730	E731	A732	A733	L734	H735	H736	H737	H738	H739	H740	H741	H742	H743	H744	V749	K750	H751	H752	H753	H754	L755	H756	H757	H758	H759	S760	F761	K762	S765	E766	F767	T768	H704																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
G582	L583	E584	E585	E586	E587	E588	E589	D590	A593	A594	L595	E596	E597	E598	E599	G600	G601	E602	F605	L606	A607	V606	G607	G608	H609	H610	L611	H612	H613	H614	H615	H616	H617	H618	H619	H620	H621	H622	H623	H624	H625	H626	H627	H628	H629	H630	H631	H632	H633	H634	H635	H636	H637	H638	H639	H640	H641	H642																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
V643	V644	V645	V646	V647	V648	V649	V650	H651	H652	H653	L654	L655	A656	D657	S661	H662	H663	H664	F665	L666	A667	L668	H669	H670	H671	H672	L673	H674	H675	H676	H677	H678	H679	H680	H681	H682	H683	H684	H685	H686	H687	H688	H689	H690	H691	H692	H693	H694	H695	H696	H697	H698	H699	H700	H701	S702	H703	H704																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
K518	G519	E520	P521	E522	E523	E524	E525	P526	E527	E528	F531	H532	D533	V534	S535	P536	K537	Q538	V539	F540	S541	V542	H543	T544	H545	P548	F549	H550	L551	H552	D553	L554	A555	H556	H557	A558	L559	H560	H561	H564	Q565	T566	H567	A568	S569	H570	H571	H572	H573	H574	H575	H576	H577	H578	H579	H580	H581																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
T453	S454	L455	A456	F457	Y458	A459	R460	V461	D462	E463	L464	G465	F466	L467	L468	Y471	R472	R473	V474	V475	V476	V477	V478	V479	V483	Y484	Y485	M486	T487	A488	R489	E490	E491	D492	F493	Y494	Y495	Y496	A497	Q498	A499	H500	T501	P502	L503	E504	G505	H506	H507	I508	A509	A510	E511	R512	A513	V514	A515	R516	H517																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Q390	L391	S392	Q393	F394	K395	D396	E397	T398	D399	E400	L401	S402	S403	L404	R405	H406	R407	R408	R409	S411	R412	L413	L414	L415	Y483	G416	E417	L418	T419	R420	E421	R422	E423	G424	F425	D426	Y427	R428	R429	D430	H431	R432	T433	H434	Y435	G436	R437	L438	C439	E442	T443	P444	E445	L449	G450	L451	L452																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
G329	N330	R331	R332	L333	L334	T335	V336	G337	E338	L339	R340	T341	D342	Q343	E344	R345	R346	L348	A349	R350	L351	A352	R353	G354	V355	E356	L357	R358	L359	T360	P361	D362	E363	E364	D365	K366	L367	T368	P369	A370	K371	L372	V373	N374	S375	R376	P377	L378	E379	L382	R383	P484	R512	F385	F386	S387	R388	S389																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
R265	R266	Y267	D268	L269	G270	E271	A272	G273	R274	Y275	K276	A277	E278	K280	R284	L285	S286	D287	R288	T289	L290	A291	R292	F293	E294	E295	D296	E297	F298	L299	D300	E301	R302	F303	V304	F305	L306	L307	R308	Y309	L310	F311	A312	L313	T314	V317	G319	E321	Y325	D326	D327	L328																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
L193	Y194	L195	L196	L197	R198	Y199	L200	G201	Y202	D203	Q204	E205	T206	L207	E210	L211	G212	L217	V218	L221	R222	D223	Y226	F227	R230	P231	L236	R237	L238	L239	L240	L241	L242	R243	R244	G245	D246	P247	P248	D251	K252	A253	Y257	V258	Y259	Y260	Y261	Y262	Y263	Y264	Y265	Y266	Y267	Y268	Y269	Y270	Y271	Y272	Y273	Y274	Y275	Y276	Y277	Y278	Y279	Y280	Y281	Y282	Y283	Y284	Y285	Y286	Y287	Y288	Y289	Y290	Y291	Y292	Y293	Y294	Y295	Y296	Y297	Y298	Y299	Y300	Y301	Y302	Y303	Y304	Y305	Y306	Y307	Y308	Y309	Y310	Y311	Y312	Y313	Y314	Y315	Y316	Y317	Y318	Y319	Y320	Y321	Y322	Y323	Y324	Y325	Y326	Y327	Y328	Y329	Y330	Y331	Y332	Y333	Y334	Y335	Y336	Y337	Y338	Y339	Y340	Y341	Y342	Y343	Y344	Y345	Y346	Y347	Y348	Y349	Y350	Y351	Y352	Y353	Y354	Y355	Y356	Y357	Y358	Y359	Y360	Y361	Y362	Y363	Y364	Y365	Y366	Y367	Y368	Y369	Y370	Y371	Y372	Y373	Y374	Y375	Y376	Y377	Y378	Y379	Y380	Y381	Y382	Y383	Y384	Y385	Y386	Y387	Y388	Y389	Y390	Y391	Y392	Y393	Y394	Y395	Y396	Y397	Y398	Y399	Y400	Y401	Y402	Y403	Y404	Y405	Y406	Y407	Y408	Y409	Y410	Y411	Y412	Y413	Y414	Y415	Y416	Y417	Y418	Y419	Y420	Y421	Y422	Y423	Y424	Y425	Y426	Y427	Y428	Y429	Y430	Y431	Y432	Y433	Y434	Y435	Y436	Y437	Y438	Y439	Y440	Y441	Y442	Y443	Y444	Y445	Y446	Y447	Y448	Y449	Y450	Y451	Y452	Y453	Y454	Y455	Y456	Y457	Y458	Y459	Y460	Y461	Y462	Y463	Y464	Y465	Y466	Y467	Y468	Y469	Y470	Y471	Y472	Y473	Y474	Y475	Y476	Y477	Y478	Y479	Y480	Y481	Y482	Y483	Y484	Y485	Y486	Y487	Y488	Y489	Y490	Y491	Y492	Y493	Y494	Y495	Y496	Y497	Y498	Y499	Y500	Y501	Y502	Y503	Y504	Y505	Y506	Y507	Y508	Y509	Y510	Y511	Y512	Y513	Y514	Y515	Y516	Y517	Y518	Y519	Y520	Y521	Y522	Y523	Y524	Y525	Y526	Y527	Y528	Y529	Y530	Y531	Y532	Y533	Y534	Y535	Y536	Y537	Y538	Y539	Y540	Y541	Y542	Y543	Y544	Y545	Y546	Y547	Y548	Y549	Y550	Y551	Y552	Y553	Y554	Y555	Y556	Y557	Y558	Y559	Y560	Y561	Y562	Y563	Y564	Y565	Y566	Y567	Y568	Y569	Y570	Y571	Y572	Y573	Y574	Y575	Y576	Y577	Y578	Y579	Y580	Y581	Y582	Y583	Y584	Y585	Y586	Y587	Y588	Y589	Y590	Y591	Y592	Y593	Y594	Y595	Y596	Y597	Y598	Y599	Y600	Y601	Y602	Y603	Y604	Y605	Y606	Y607	Y608	Y609	Y610	Y611	Y612	Y613	Y614	Y615	Y616	Y617	Y618	Y619	Y620	Y621	Y622	Y623	Y624	Y625	Y626	Y627	Y628	Y629	Y630	Y631	Y632	Y633	Y634	Y635	Y636	Y637	Y638	Y639	Y640	Y641	Y642	Y643	Y644	Y645	Y646	Y647	Y648	Y649	Y650	Y651	Y652	Y653	Y654	Y655	Y656	Y657	Y658	Y659	Y660	Y661	Y662	Y663	Y664	Y665	Y666	Y667	Y668	Y669	Y670	Y671	Y672	Y673	Y674	Y675	Y676	Y677	Y678	Y679	Y680	Y681	Y682	Y683	Y684	Y685	Y686	Y687	Y688	Y689	Y690	Y691	Y692	Y693	Y694	Y695	Y696	Y697	Y698	Y699	Y700	Y701	Y702	Y703	Y704	Y705	Y706	Y707	Y708	Y709	Y710	Y711	Y712	Y713	Y714	Y715	Y716	Y717	Y718	Y719	Y720	Y721	Y722	Y723	Y724	Y725	Y726	Y727	Y728	Y729	Y730	Y731	Y732	Y733	Y734	Y735	Y736	Y737	Y738	Y739	Y740	Y741	Y742	Y743	Y744	Y745	Y746	Y747	Y748	Y749	Y750	Y751	Y752	Y753	Y754	Y755	Y756	Y757	Y758	Y759	Y760	Y761	Y762	Y763	Y764	Y765	Y766	Y767	Y768	Y769	Y770	Y771	Y772	Y773	Y774	Y775	Y776	Y777	Y778	Y779	Y780	Y781	Y782	Y783	Y784	Y785	Y786	Y787	Y788	Y789	Y790	Y791	Y792	Y793	Y794	Y795	Y796	Y797	Y798	Y799	Y800	Y801	Y802	Y803	Y804	Y805	Y806	Y807	Y808	Y809	Y810	Y811	Y812	Y813	Y814	Y815	Y816	Y817	Y818	Y819	Y820	Y821	Y822	Y823	Y824	Y825	Y826	Y827	Y828	Y829	Y830	Y831	Y832	Y833	Y834	Y835	Y836	Y837	Y838	Y839	Y840	Y841	Y842	Y843	Y844	Y845	Y846	Y847	Y848	Y849	Y850	Y851	Y852	Y853	Y854	Y855	Y856	Y857	Y858	Y859	Y860	Y861	Y862	Y863	Y864	Y865	Y866	Y867	Y868	Y869	Y870	Y871	Y872	Y873	Y874	Y875	Y876	Y877	Y878	Y879	Y880	Y881	Y882	Y883	Y884	Y885	Y886	Y887	Y888	Y889	Y890	Y891	Y892	Y893	Y894	Y895	Y896	Y897	Y898	Y899	Y900	Y901	Y902	Y903	Y904	Y905	Y906	Y907	Y908	Y909	Y910	Y911	Y912	Y913	Y914	Y915	Y916	Y917	Y918	Y919	Y920	Y921	Y922	Y923	Y924	Y925	Y926	Y927	Y928	Y929	Y930	Y931	Y932	Y933	Y934	Y935	Y936	Y937	Y938	Y939	Y940	Y941	Y942	Y943	Y944	Y945	Y946	Y947	Y948	Y949	Y950	Y951	Y952	Y953	Y954	Y955	Y956	Y957	Y958	Y959	Y960	Y961	Y962	Y963	Y964	Y965	Y966	Y967	Y968	Y969	Y970	Y971	Y972	Y973	Y974	Y975	Y976	Y977	Y978	Y979	Y980	Y981	Y982	Y983	Y984	Y985	Y986	Y987	Y988	Y989	Y990	Y991	Y992	Y993	Y994	Y995</

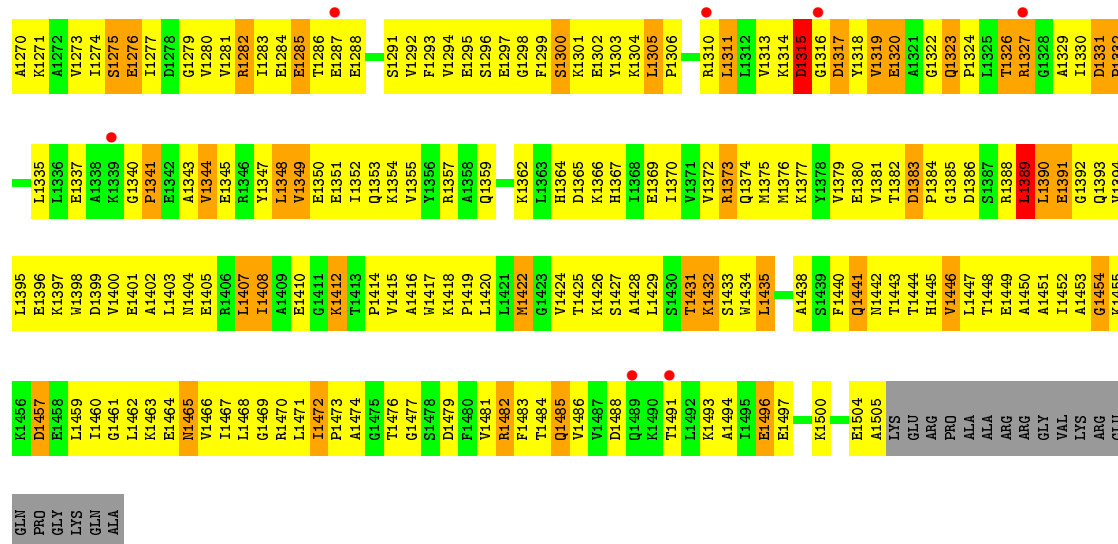


• Molecule 3: DNA-directed RNA polymerase subunit beta'

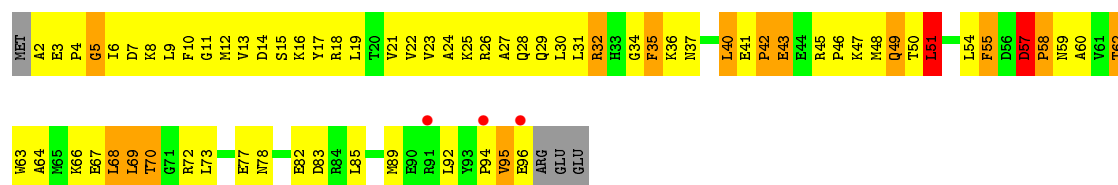




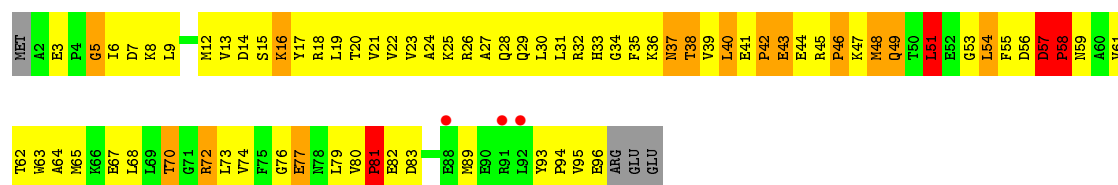
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M1211	G1146	H075	K1009	I936	R672	B811	V749	E686	K621	K556	L496	V435	PRO	ALA
A1212	R1147	H075	N1010	I937	L873	A812	P750	V887	R622	L557	E497	E436	GLU	GLU
R1213	G938	L873	F1011	G938	L813	L813	L751	M888	V623	L558	V498	V437	ARG	GLU
P1214	V1148	A1082	E1012	T939	T875	A814	S752	D689	D624	A560	V499	D438	GLN	GLY
V1215	L1149	T940	E1013	T940	S876	A815	S753	A690	V625	O560	R500	VAL	VAL	GLY
S1216	A1150	P877	E1014	F941	P877	B816	F754	L891	S626	G561	A501	ILE	ARG	VAL
I1217	R1151	T1084	S942	F941	A785	B817	A755	E592	G627	A562	F502	ALA	ALA	VAL
G1218	L1086	L1086	F1017	T943	R878	A818	Q756	E593	R628	P563	L503	V442	GLU	VAL
E1219	L1087	L1087	F1019	T944	L880	G819	A757	V694	S629	E564	L504	V444	ALA	ALA
A1220	T1088	S945	P1019	S945	L881	B820	E758	I695	V630	S505	GLU	V445	GLN	LYS
E1221	A1089	A1089	G946	T946	F882	B821	A759	B696	V631	I566	GLY	V446	GLU	LYS
G1222	D1090	D1090	Y1021	I947	A883	A822	R760	G697	V632	I567	VAL	V447	GLU	LEU
I1223	Y1093	Y1093	V1022	T948	R884	L823	I761	K698	V633	R568	GLU	V448	GLU	GLU
V1224	R1159	L1094	M1023	I949	L885	B824	Q762	V699	G634	P569	HIS	S449	GLU	GLU
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Q1226	E1161	T1095	G1027	I951	A887	P826	L764	L701	L637	K571	HIS	D451	ALA	ALA
A1227	E1162	R1096	A1028	D952	E888	R827	S765	L702	K638	R572	M512	I452	GLY	ALA
Q1228	G1163	K1097	R1029	D953	A889	K828	A766	N703	L639	N573	LEU	D463	THR	PHE
I1229	R1164	L1098	G1030	P957	B890	B829	H767	A705	R640	L574	LEU	A454	VAL	LEU
E1231	Y1165	V1099	N1031	E958	A891	A830	N768	R706	Q641	E515	VAL	R455	TYR	TYR
P1232	L1166	D1100	P1032	E958	D892	G831	L769	P706	C642	A516	ARG	M456	LEU	ARG
S1233	S1167	V1101	Q1033	E959	E893	R832	L770	T707	G643	A577	THR	G457	THR	ARG
G1233	M1168	T1102	Q1034	K960	E894	B833	S771	L708	L644	P518	GLU	A458	GLU	GLU
T1234	H1103	H1103	I1085	K961	T834	B834	S774	H709	P645	D579	ASP	V396	ASP	ASP
Q1235	V1171	E1104	R1036	Q962	A896	S835	G775	R710	K646	A560	GLU	K397	GLU	GLU
L1236	H1172	I1105	Q1037	T963	R897	B836	G775	L711	K646	L581	PRO	A391	PRO	PRO
T1237	V1106	V1107	LEU	L964	E898	G837	E776	G712	A649	L582	TRP	Q462	TRP	VAL
M1238	I1175	P1107	CYS	E965	L899	R838	P777	I743	L650	D583	THR	Q463	THR	ALA
R1239	K1176	L1108	GLY	E966	L900	L839	L778	Q714	B651	N584	GLU	L464	THR	ALA
T1240	A1177	E1109	LEU	A967	Q901	K840	A779	A715	L652	G585	PRO	L465	TYR	TYR
F1241	A1178	A1110	ARG	D968	L902	B841	K780	F716	P653	R586	LYS	L466	LYS	PHE
HIS	E1179	D1111	GLY	R969	E907	B842	F781	Q717	A654	R587	ASP	D405	ASP	PHE
THR	A1180	G1112	LEU	R970	K908	F843	S782	V718	P655	E588	LEU	D406	LEU	LEU
GLY	I1183	T1114	GLN	L972	L913	N845	D784	L720	L657	V528	PRO	V407	PRO	PRO
VAL	Q1184	T1115	LYS	Q973	K912	P846	I785	L721	L658	Q529	VAL	V408	VAL	VAL
ALA	E1185	N1116	PRO	I974	K912	D847	I786	V721	L659	D631	GLN	V409	GLN	MET
GLY	V1186	Y1117	SER	E975	E854	B848	L787	E722	K659	G532	PRO	T411	PRO	THR
ALA	I1118	I1118	GLY	Q376	L914	E848	G788	G723	K660	G533	HIS	G412	HIS	PRO
ALA	A977	L914	THR	A977	L914	N845	L789	L720	L657	R590	MET	D413	LEU	LEU
ASP	R1189	L1122	THR	F982	Q917	A852	Y791	H729	K664	A536	VAL	V415	VAL	VAL
ILE	P1191	Q1123	PHE	F982	Y916	L851	L790	L728	B662	L600	ASN	R414	ASN	VAL
THR	L1192	Q1124	GLU	F982	Q917	A852	Y791	H729	K664	A536	VAL	V415	VAL	VAL
GLN	T1193	P1125	VAL	D985	F919	B854	R796	L730	L666	L603	VAL	A416	VAL	GLY
G1255	C1194	E1127	PRO	E986	L920	B855	Q794	L731	A667	T604	PRO	G418	PRO	GLY
L1256	Q1195	V1128	VAL	E987	L921	B855	Q795	V732	P668	L606	GLU	D419	GLU	ILE
P1257	T1196	E1128	R1058	R988	L922	B855	R796	C733	P668	L607	ALA	L421	ALA	GLU
R1258	R1197	T1129	S1059	Y989	G923	B859	A735	E734	P668	S608	ARG	A422	ARG	LYS
V1259	R1197	R1130	F1060	D990	N924	L860	K799	A736	K671	G609	VAL	D423	VAL	GLY
I1260	V1200	S1131	F1061	Q991	E925	Q861	K800	F736	R675	K610	GLN	G424	GLN	GLN
E1261	Q1202	L1132	R1062	I992	E925	B862	G801	A737	R676	K610	PRO	G425	PRO	ALA
F1262	R1133	R1133	L1065	L993	T927	V863	A802	D739	L677	G612	GLY	K426	GLY	LEU
K1263	K1203	L1134	L1065	Q994	A928	B864	G803	F740	L677	R613	ASP	V427	ASP	ALA
E1264	C1204	R1135	T1066	L995	R929	T865	L804	D741	B678	R614	LYS	K428	LYS	GLU
A1265	Y1205	K1136	V1067	K996	R930	B866	E805	G742	Q680	R615	ILE	S429	ILE	ALA
R1266	G1266	R1137	L1068	T999	L931	B867	F806	D743	K681	Q616	VAL	D430	VAL	LYS
R1267	Y1207	A1138	E1069	T999	D932	B868	A807	Q744	D682	R617	ALA	Y431	ALA	GLY
D1268	D1208	A1138	E1069	T999	D932	B868	A807	Q744	D682	R617	ALA	Y432	ALA	GLY
K1269	L1209	I1140	F1071	V1007	L934	G870	P809	M745	K684	L619	ILE	G433	ILE	LEU



• Molecule 4: DNA-directed RNA polymerase subunit omega



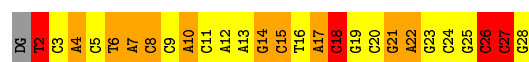
• Molecule 4: DNA-directed RNA polymerase subunit omega



• Molecule 5: DNA (28-MER)



• Molecule 5: DNA (28-MER)



- Molecule 6: RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP*CP*UP*CP*GP*CP*A)-3')



- Molecule 6: RNA (5'-R(P*CP*CP*AP*GP*CP*CP*GP*GP*CP*GP*CP*UP*CP*GP*CP*A)-3')



- Molecule 7: DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP*GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3')



- Molecule 7: DNA (5'-D(P*GP*TP*AP*GP*CP*TP*TP*GP*TP*GP*GP*TP*AP*GP*TP*GP*AP*CP*GP*AP*G)-3')



4 Data and refinement statistics

Property	Value	Source
Space group	P 41	Depositor
Cell constants a, b, c, α , β , γ	155.98Å 155.98Å 495.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	44.15 – 4.31 44.15 – 4.31	Depositor EDS
% Data completeness (in resolution range)	99.9 (44.15-4.31) 99.4 (44.15-4.31)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.17	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.12 (at 4.28Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.9_1692)	Depositor
R, R_{free}	0.281 , 0.311 0.281 , 0.311	Depositor DCC
R_{free} test set	3812 reflections (4.83%)	DCC
Wilson B-factor (Å ²)	102.9	Xtriage
Anisotropy	0.055	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.15 , 67.4	EDS
Estimated twinning fraction	0.499 for h,-k,-l	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.27$, $\langle L^2 \rangle = 0.12$	Xtriage
Outliers	0 of 79319 reflections	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	48166	wwPDB-VP
Average B, all atoms (Å ²)	250.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.72% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0.38	0/1838	0.69	0/2498
1	B	0.43	0/1838	0.68	0/2498
1	K	0.45	0/1838	0.70	0/2498
1	L	0.42	0/1838	0.67	0/2498
2	C	0.49	0/8997	0.79	3/12164 (0.0%)
2	M	0.48	0/8997	0.78	4/12164 (0.0%)
3	D	0.51	1/9249 (0.0%)	0.83	10/12482 (0.1%)
3	N	0.51	0/10344	0.81	8/13968 (0.1%)
4	E	0.50	0/784	0.87	2/1057 (0.2%)
4	O	0.46	0/784	0.84	2/1057 (0.2%)
5	G	0.99	1/614 (0.2%)	1.41	9/943 (1.0%)
5	X	0.93	0/614	1.43	11/943 (1.2%)
6	H	1.14	3/378 (0.8%)	1.56	6/585 (1.0%)
6	Y	1.15	3/353 (0.8%)	1.45	5/546 (0.9%)
7	I	0.94	1/400 (0.2%)	1.46	7/616 (1.1%)
7	Z	0.90	1/400 (0.2%)	1.28	3/616 (0.5%)
All	All	0.53	10/49266 (0.0%)	0.84	70/67133 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
5	G	0	10
5	X	0	11
6	H	0	4
6	Y	0	5
7	I	0	6
7	Z	0	4
All	All	0	40

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	Z	1	DG	OP3-P	-7.99	1.51	1.61
7	I	1	DG	OP3-P	-7.84	1.51	1.61
6	Y	11	C	N1-C2	-7.40	1.32	1.40
6	H	11	C	N1-C2	-7.38	1.32	1.40
6	H	1	C	OP3-P	-7.06	1.52	1.61
6	Y	1	C	OP3-P	-6.95	1.52	1.61
6	H	11	C	C2-O2	-6.02	1.19	1.24
6	Y	10	G	N9-C4	-5.89	1.33	1.38
5	G	20	DC	C2-O2	5.61	1.29	1.24
3	D	688	TRP	CD2-CE2	5.17	1.47	1.41

All (70) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	I	1	DG	O5'-P-OP1	-18.71	88.24	110.70
7	Z	1	DG	O5'-P-OP1	-16.85	90.48	110.70
6	H	5	C	N1-C1'-C2'	-15.07	94.41	114.00
6	Y	5	C	N1-C1'-C2'	-9.98	101.02	112.00
7	I	1	DG	O5'-P-OP2	9.33	121.90	110.70
3	N	1209	LEU	N-CA-C	-9.28	85.96	111.00
3	D	1209	LEU	N-CA-C	-9.20	86.17	111.00
3	D	1031	ASN	C-N-CD	-9.05	100.69	120.60
5	G	2	DT	O5'-P-OP1	-9.01	97.59	105.70
6	Y	7	G	N9-C1'-C2'	-9.00	102.11	112.00
3	N	1110	ALA	N-CA-C	-7.75	90.08	111.00
7	I	2	DT	O4'-C1'-N1	7.74	113.42	108.00
5	X	6	DT	OP1-P-O3'	7.70	122.15	105.20
3	D	1110	ALA	N-CA-C	-7.68	90.26	111.00
5	G	17	DA	O5'-P-OP1	-7.65	98.81	105.70
5	X	2	DT	O5'-P-OP1	-7.62	98.84	105.70
2	C	1092	LEU	CA-CB-CG	-7.59	97.84	115.30
7	Z	1	DG	O5'-P-OP2	7.58	119.80	110.70
3	N	1331	ASP	C-N-CD	-7.32	104.49	120.60
3	D	81	THR	N-CA-C	-7.30	91.28	111.00
5	G	2	DT	OP1-P-O3'	7.13	120.88	105.20
3	N	621	LYS	N-CA-C	7.07	130.08	111.00
3	D	621	LYS	N-CA-C	7.06	130.07	111.00
6	Y	12	U	N1-C1'-C2'	-7.04	104.25	112.00
6	Y	5	C	OP1-P-O3'	7.02	120.65	105.20
5	X	7	DA	OP1-P-O3'	7.01	120.62	105.20
6	H	15	C	C5'-C4'-C3'	-7.01	104.79	116.00
6	Y	5	C	OP2-P-O3'	-6.98	89.84	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	G	17	DA	OP1-P-O3'	6.88	120.34	105.20
5	X	2	DT	OP1-P-O3'	6.86	120.30	105.20
2	M	553	ASP	CB-CG-OD2	6.84	124.46	118.30
3	D	1247	ALA	N-CA-C	-6.73	92.82	111.00
7	I	1	DG	OP1-P-OP2	-6.66	109.61	119.60
4	E	49	GLN	N-CA-C	6.63	128.90	111.00
4	O	49	GLN	N-CA-C	6.51	128.57	111.00
2	M	728	HIS	N-CA-C	6.49	128.52	111.00
2	C	728	HIS	N-CA-C	6.44	128.39	111.00
5	X	27	DC	OP1-P-O3'	6.23	118.90	105.20
2	C	729	LEU	N-CA-C	6.13	127.56	111.00
3	D	1192	LEU	CB-CG-CD1	-6.09	100.64	111.00
6	H	16	A	C2'-C3'-O3'	6.07	123.41	113.70
4	O	51	LEU	N-CA-C	-5.98	94.86	111.00
6	H	12	U	OP2-P-O3'	5.87	118.11	105.20
2	M	729	LEU	N-CA-C	5.85	126.80	111.00
7	Z	1	DG	OP1-P-OP2	-5.84	110.84	119.60
3	N	81	THR	N-CA-C	-5.81	95.31	111.00
4	E	51	LEU	N-CA-C	-5.77	95.42	111.00
5	X	21	DG	O4'-C1'-N9	5.77	112.04	108.00
5	G	20	DC	C5'-C4'-C3'	-5.61	103.99	114.10
3	D	993	LEU	CA-CB-CG	5.52	128.00	115.30
6	H	14	G	N9-C1'-C2'	-5.48	105.97	112.00
3	N	1389	LEU	CA-CB-CG	5.41	127.74	115.30
5	G	18	DC	C5'-C4'-C3'	-5.35	104.47	114.10
5	X	18	DC	C4'-C3'-O3'	5.35	123.08	109.70
3	D	731	LEU	CA-CB-CG	-5.33	103.05	115.30
5	X	26	DC	C2'-C3'-O3'	-5.30	95.12	112.60
5	G	19	DG	OP1-P-O3'	5.29	116.83	105.20
3	N	527	MET	N-CA-C	-5.26	96.78	111.00
7	I	2	DT	C5'-C4'-C3'	-5.21	104.72	114.10
5	G	18	DC	OP2-P-O3'	5.21	116.65	105.20
5	G	26	DC	OP2-P-O3'	-5.19	93.78	105.20
5	X	27	DC	OP2-P-O3'	-5.19	93.79	105.20
2	M	178	PRO	N-CA-C	5.14	125.47	112.10
7	I	8	DG	C5'-C4'-C3'	-5.11	104.90	114.10
7	I	15	DT	O4'-C1'-N1	5.11	111.58	108.00
5	X	18	DC	OP2-P-O3'	5.10	116.42	105.20
6	H	14	G	OP2-P-O3'	5.08	116.39	105.20
3	N	131	LYS	N-CA-C	5.05	124.64	111.00
5	X	21	DG	C4-N9-C1'	-5.03	119.97	126.50
3	D	1116	ASN	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

All (40) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	G	10	DA	Sidechain
5	G	11	DC	Sidechain
5	G	14	DG	Sidechain
5	G	15	DC	Sidechain
5	G	17	DA	Sidechain
5	G	18	DC	Sidechain
5	G	2	DT	Sidechain
5	G	3	DC	Sidechain
5	G	4	DA	Sidechain
5	G	9	DC	Sidechain
6	H	5	C	Sidechain
6	H	7	G	Sidechain
6	H	8	G	Sidechain
6	H	9	C	Sidechain
7	I	14	DG	Sidechain
7	I	15	DT	Sidechain
7	I	2	DT	Sidechain
7	I	4	DG	Sidechain
7	I	5	DC	Sidechain
7	I	8	DG	Sidechain
5	X	10	DA	Sidechain
5	X	14	DG	Sidechain
5	X	15	DC	Sidechain
5	X	17	DA	Sidechain
5	X	18	DC	Sidechain
5	X	2	DT	Sidechain
5	X	22	DA	Sidechain
5	X	26	DC	Sidechain
5	X	27	DC	Sidechain
5	X	4	DA	Sidechain
5	X	8	DC	Sidechain
6	Y	10	G	Sidechain
6	Y	11	C	Sidechain
6	Y	15	C	Sidechain
6	Y	7	G	Sidechain
6	Y	9	C	Sidechain
7	Z	12	DT	Sidechain
7	Z	14	DG	Sidechain
7	Z	7	DT	Sidechain
7	Z	8	DG	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	1806	0	1861	257	0
1	B	1806	0	1861	180	0
1	K	1806	0	1861	189	0
1	L	1806	0	1861	203	0
2	C	8829	0	8933	1430	0
2	M	8829	0	8933	1425	0
3	D	9097	0	9316	1626	0
3	N	10175	0	10401	1763	0
4	E	770	0	784	124	0
4	O	770	0	784	151	0
5	G	548	0	301	113	0
5	X	548	0	301	93	0
6	H	340	0	176	76	0
6	Y	318	0	165	56	0
7	I	357	0	194	68	0
7	Z	357	0	194	71	0
8	D	2	0	0	0	0
8	N	2	0	0	0	0
All	All	48166	0	47926	7162	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 75.

All (7162) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:52:PHE:CZ	2:C:68:PHE:HB2	1.22	1.67
3:D:897:TRP:HA	3:D:900:ILE:CG1	1.33	1.56
3:D:1041:LEU:HD11	3:D:1045:MET:SD	1.55	1.44
3:D:705:ALA:HB1	6:H:14:G:N2	1.24	1.40
3:D:705:ALA:CB	6:H:14:G:H21	1.40	1.32
2:C:52:PHE:CZ	2:C:68:PHE:CB	2.12	1.31
3:N:610:LYS:O	3:N:615:ARG:HG2	1.18	1.29
3:D:744:GLN:CD	5:G:21:DG:H21	1.34	1.29
2:M:486:MET:SD	2:M:490:GLU:HB2	1.72	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:897:TRP:CA	3:D:900:ILE:HG12	1.62	1.27
3:N:1033:GLN:OE1	3:N:1240:THR:HG21	1.31	1.26
3:D:1033:GLN:O	3:D:1037:GLN:CB	1.82	1.26
2:M:265:ARG:N	2:M:289:THR:HG21	1.49	1.26
1:A:28:LEU:HD22	1:A:32:PHE:CD1	1.70	1.25
3:D:1041:LEU:CD1	3:D:1045:MET:SD	2.24	1.24
3:D:1042:ARG:NH2	3:D:1073:SER:HB2	1.52	1.24
3:D:1033:GLN:O	3:D:1037:GLN:HB2	1.29	1.24
3:N:618:LEU:HD12	3:N:1467:ILE:CG1	1.66	1.24
3:D:989:TYR:OH	3:D:1051:GLU:HG3	1.07	1.24
3:N:610:LYS:C	3:N:615:ARG:HG2	1.58	1.23
2:C:50:GLU:HA	2:C:266:ARG:CZ	1.70	1.21
3:N:625:TYR:OH	3:N:655:PRO:HG2	1.33	1.20
3:N:1129:THR:HB	3:N:1320:GLU:CG	1.73	1.18
3:N:1485:GLN:HG3	4:O:79:LEU:H	1.08	1.18
2:C:336:VAL:HA	2:C:339:LEU:HD12	1.20	1.18
2:M:265:ARG:H	2:M:289:THR:CG2	1.55	1.17
2:M:1109:VAL:HG11	3:N:5:VAL:HG22	1.22	1.17
3:N:705:ALA:HB3	3:N:706:PRO:HD3	1.27	1.16
3:N:1435:LEU:HD23	3:N:1464:GLU:HB2	1.16	1.15
3:N:19:ARG:HH21	3:N:516:ALA:HB2	1.08	1.15
4:E:36:LYS:H	4:E:95:VAL:HG21	1.09	1.15
3:N:477:LEU:HD12	3:N:496:LEU:HD13	1.29	1.15
2:C:52:PHE:CE2	2:C:68:PHE:HB2	1.81	1.15
1:L:185:ARG:NH2	3:N:688:TRP:HB3	1.59	1.15
2:C:48:PHE:O	2:C:52:PHE:HB2	1.46	1.14
3:D:1034:GLN:O	3:D:1038:LEU:HB2	1.46	1.14
1:L:185:ARG:HH22	3:N:688:TRP:CB	1.58	1.14
3:N:833:GLU:O	3:N:834:THR:HG23	1.45	1.14
1:K:178:ALA:HB2	2:M:864:GLY:H	1.11	1.13
2:M:490:GLU:HA	2:M:493:ARG:HD3	1.28	1.13
3:D:897:TRP:HB2	3:D:900:ILE:HD11	1.14	1.13
2:M:1056:LYS:HE3	3:N:751:LEU:HD11	1.31	1.13
3:N:618:LEU:CD1	3:N:1467:ILE:HG12	1.77	1.13
7:I:3:DA:H1'	7:I:4:DG:H5'	1.30	1.12
3:D:833:GLU:O	3:D:834:THR:HG23	1.47	1.12
3:N:814:ALA:HB1	3:N:818:ARG:HH21	1.08	1.12
3:N:754:PHE:HA	4:O:24:ALA:HB1	1.22	1.12
2:C:266:ARG:HA	2:C:288:ARG:HD3	1.29	1.12
2:M:455:LEU:HD13	2:M:459:ALA:HB3	1.25	1.12
3:D:897:TRP:CA	3:D:900:ILE:CG1	2.24	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:156:HIS:HE1	1:K:166:PRO:HB3	1.04	1.12
3:N:98:PRO:HG2	3:N:462:GLN:NE2	1.65	1.11
2:C:423:ALA:HB1	7:I:1:DG:H5"	1.33	1.11
2:C:1024:LYS:HB2	6:H:4:G:H21	1.14	1.11
2:C:630:ARG:HD2	2:C:634:GLY:HA2	1.27	1.11
2:C:409:ARG:HB3	2:C:454:SER:OG	1.51	1.11
3:N:483:HIS:HB2	3:N:484:PRO:HD3	1.21	1.11
3:D:993:LEU:O	3:D:997:THR:HG23	1.51	1.10
3:N:783:ARG:HE	3:N:1029:ARG:CD	1.64	1.10
1:K:156:HIS:CE1	1:K:166:PRO:HB3	1.87	1.10
3:N:1442:ASN:O	3:N:1446:VAL:HG23	1.51	1.10
2:M:490:GLU:HB3	2:M:493:ARG:HH11	1.17	1.10
2:C:692:GLU:HG2	2:C:696:LYS:HE3	1.29	1.10
3:D:126:VAL:O	3:D:130:SER:HB2	1.51	1.10
2:C:1042:ALA:HB2	3:D:1227:GLN:HE22	0.95	1.09
3:D:608:SER:HB3	3:D:1442:ASN:O	1.53	1.09
2:C:50:GLU:HG3	2:C:266:ARG:HD2	1.13	1.09
3:N:957:PRO:HG2	3:N:1007:VAL:HG22	1.34	1.09
3:D:1112:CYS:HB3	3:D:1195:GLN:HG2	1.17	1.09
7:Z:11:DG:H2"	7:Z:12:DT:H71	1.24	1.09
1:A:28:LEU:CD2	1:A:32:PHE:HD1	1.66	1.08
5:X:4:DA:H2"	5:X:5:DC:H5"	1.10	1.08
2:C:861:LEU:HD23	2:C:863:ASP:H	0.99	1.08
2:M:89:THR:HG21	2:M:383:ARG:HH22	1.14	1.08
3:N:925:GLU:HB3	4:O:6:ILE:HG22	1.25	1.08
5:G:17:DA:H2"	5:G:18:DC:H5'	1.26	1.08
3:N:704:ARG:HA	3:N:745:MET:HG2	1.30	1.08
3:D:989:TYR:OH	3:D:1051:GLU:CG	2.00	1.08
3:D:1112:CYS:H	3:D:1201:CYS:CB	1.66	1.08
2:M:857:ASP:HB2	2:M:978:ARG:HG2	1.34	1.08
3:N:1238:MET:O	3:N:1239:ARG:HG2	1.53	1.08
3:D:1042:ARG:HH21	3:D:1073:SER:CB	1.65	1.07
2:M:675:ALA:HA	2:M:989:VAL:HG12	1.11	1.07
2:C:328:LEU:HD13	2:C:433:THR:HB	1.33	1.07
3:N:1238:MET:O	3:N:1239:ARG:CG	2.02	1.07
3:N:697:GLY:HA2	3:N:717:GLN:CD	1.73	1.07
3:N:760:ARG:HH11	4:O:61:VAL:HG23	1.15	1.07
3:D:1472:ILE:HD13	3:D:1472:ILE:H	1.15	1.07
3:D:520:LEU:HD23	3:D:525:ARG:HD2	1.37	1.06
3:D:696:HIS:CD2	4:E:59:ASN:HB2	1.90	1.06
2:C:69:LEU:HD12	2:C:97:ARG:HB3	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1045:MET:CE	3:D:1076:GLY:HA3	1.85	1.06
2:M:431:HIS:HB3	2:M:434:HIS:CE1	1.91	1.06
3:N:1128:VAL:HB	3:N:1133:ARG:HH22	1.21	1.05
3:N:957:PRO:CG	3:N:1007:VAL:HG22	1.85	1.05
3:D:783:ARG:HA	3:D:1028:ALA:HA	1.33	1.05
3:N:783:ARG:NE	3:N:1029:ARG:HD2	1.70	1.05
3:N:181:ASP:HB3	3:N:441:ARG:HD3	1.35	1.05
2:C:50:GLU:HG3	2:C:266:ARG:CD	1.87	1.05
7:Z:3:DA:H1'	7:Z:4:DG:H5'	1.33	1.05
3:D:899:LEU:HD22	3:D:917:GLN:CG	1.86	1.05
3:D:989:TYR:CZ	3:D:1051:GLU:HG3	1.91	1.05
1:L:185:ARG:CZ	3:N:688:TRP:HB3	1.85	1.05
2:C:89:THR:HA	2:C:129:ILE:O	1.57	1.05
3:D:1481:VAL:HG11	4:E:18:ARG:HA	1.30	1.05
3:N:1472:ILE:HD13	3:N:1472:ILE:H	1.16	1.04
1:A:32:PHE:CE1	1:B:221:HIS:NE2	2.25	1.04
3:N:1274:ILE:HD13	3:N:1276:GLU:HG2	1.36	1.04
3:N:1109:GLU:HG2	3:N:1201:CYS:HA	1.39	1.04
3:N:521:PRO:HB2	3:N:524:LEU:HD13	1.37	1.04
2:C:165:LEU:HG	2:C:166:PRO:HA	1.34	1.04
3:N:157:GLU:HA	3:N:160:GLU:OE1	1.56	1.04
3:N:783:ARG:NH2	3:N:1029:ARG:HB3	1.72	1.04
3:D:1262:LEU:HD23	3:D:1352:ILE:HG12	1.39	1.04
2:M:939:ARG:HA	2:M:939:ARG:HE	1.19	1.04
3:N:171:LEU:HD11	3:N:195:VAL:HG23	1.38	1.04
3:D:1410:GLU:HG2	2:M:374:ASN:HA	1.40	1.04
3:D:1258:ARG:HH12	3:D:1329:ALA:HB1	1.20	1.03
3:D:704:ARG:HA	3:D:745:MET:HG2	1.37	1.03
3:N:610:LYS:O	3:N:615:ARG:CG	2.05	1.03
3:N:62:LYS:HG3	3:N:75:ARG:HD2	1.37	1.03
2:C:987:ILE:HG23	3:D:948:THR:HG21	1.40	1.03
5:G:13:DA:H2''	5:G:14:DG:OP2	1.59	1.03
2:M:89:THR:HA	2:M:129:ILE:O	1.57	1.03
3:N:1216:SER:HB3	4:O:15:SER:CB	1.89	1.03
3:D:28:LYS:HG3	3:D:29:PRO:HD2	1.41	1.03
3:N:171:LEU:CD1	3:N:195:VAL:HG23	1.88	1.02
2:M:455:LEU:HD12	2:M:456:ALA:O	1.60	1.02
3:D:1003:VAL:CG1	3:D:1036:ARG:HD2	1.90	1.02
2:M:409:ARG:HA	2:M:454:SER:HA	1.42	1.02
3:N:783:ARG:HH21	3:N:1029:ARG:HB3	0.89	1.02
2:C:739:GLU:HG3	2:C:742:VAL:HB	1.39	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:136:ASP:HB3	3:D:137:PRO:HD3	1.40	1.02
4:O:54:LEU:HD23	4:O:58:PRO:HD2	1.41	1.02
1:L:185:ARG:NH2	3:N:688:TRP:CB	2.19	1.02
3:N:698:LYS:HG2	4:O:59:ASN:ND2	1.74	1.02
3:N:525:ARG:HB2	3:N:538:SER:HB3	1.41	1.02
3:N:1294:VAL:HG12	3:N:1319:VAL:HG21	1.42	1.01
1:A:28:LEU:HD22	1:A:32:PHE:HD1	0.84	1.01
3:N:603:LEU:O	3:N:606:ILE:HG22	1.60	1.01
3:N:1018:ASN:HB3	3:N:1021:TYR:HB3	1.41	1.01
2:C:1036:GLU:HA	3:D:707:THR:HG21	1.42	1.01
1:L:188:GLN:HG3	3:N:685:ASP:OD2	1.61	1.01
1:A:28:LEU:HD13	1:A:32:PHE:HB3	1.42	1.01
2:C:1097:LEU:HD22	2:C:1097:LEU:H	1.22	1.01
7:I:5:DC:H2"	7:I:6:DT:OP2	1.59	1.01
3:N:398:ALA:HB2	3:N:447:VAL:HA	1.43	1.01
3:D:764:LEU:HD23	3:D:767:HIS:CE1	1.96	1.01
3:D:960:LYS:HE3	3:D:964:LEU:HD12	1.41	1.01
2:C:423:ALA:CB	7:I:1:DG:H5"	1.91	1.00
3:N:1294:VAL:HG12	3:N:1319:VAL:CG2	1.90	1.00
3:D:860:LEU:HA	3:D:877:PRO:HB2	1.43	1.00
3:N:166:GLN:O	3:N:167:GLU:HB2	1.60	1.00
2:M:768:THR:HB	2:M:771:GLU:HB3	1.43	1.00
3:D:1087:ARG:HG3	3:D:1236:LEU:HD22	1.03	1.00
3:D:705:ALA:HB3	3:D:706:PRO:HD3	1.39	1.00
3:N:771:SER:HB3	3:N:778:LEU:HD13	1.43	1.00
3:N:1468:LEU:HD22	3:N:1470:ARG:HB2	1.41	1.00
1:A:39:PRO:HG3	1:B:39:PRO:HG3	1.43	1.00
3:N:1101:VAL:HG13	3:N:1428:ALA:HB2	1.43	1.00
3:N:711:LEU:HD12	3:N:778:LEU:HD23	1.44	1.00
3:D:600:LEU:HD12	3:D:600:LEU:H	1.25	1.00
2:C:675:ALA:HA	2:C:989:VAL:HG12	1.44	0.99
3:D:1045:MET:HE1	3:D:1076:GLY:HA3	1.40	0.99
2:C:1115:LEU:HG	3:D:85:VAL:HG12	1.43	0.99
2:M:1040:LEU:HD23	2:M:1049:LEU:HD13	1.43	0.99
3:D:456:MET:HA	3:D:460:ALA:HB2	1.43	0.99
1:A:63:HIS:HB3	2:C:746:GLY:CA	1.93	0.99
3:N:1216:SER:HB3	4:O:15:SER:OG	1.61	0.99
3:N:1033:GLN:OE1	3:N:1240:THR:CG2	2.09	0.99
7:Z:4:DG:H2"	7:Z:5:DC:OP2	1.59	0.99
2:C:48:PHE:C	2:C:52:PHE:HB2	1.81	0.99
2:C:1036:GLU:HG3	3:D:707:THR:OG1	1.62	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:754:ILE:HD13	2:M:791:ARG:HG2	1.44	0.99
2:M:64:LEU:HD22	2:M:359:MET:HG3	1.43	0.99
2:M:889:HIS:HE1	2:M:988:VAL:HG21	1.24	0.99
3:D:708:LEU:HD22	3:D:1231:GLU:HA	1.41	0.98
7:I:4:DG:H2"	7:I:5:DC:OP2	1.64	0.98
3:N:1463:LYS:O	3:N:1467:ILE:HG13	1.63	0.98
2:M:706:GLU:HG2	2:M:708:TYR:CZ	1.97	0.98
3:D:744:GLN:CD	5:G:21:DG:N2	2.15	0.98
3:N:453:ASP:HB3	3:N:455:ARG:HH21	1.25	0.98
1:L:185:ARG:NH1	3:N:688:TRP:HB3	1.78	0.98
2:C:292:ARG:HG2	2:C:298:PHE:HA	1.42	0.98
3:N:810:GLU:O	3:N:813:LEU:HG	1.63	0.98
3:D:902:LEU:H	3:D:902:LEU:HD23	1.29	0.97
3:N:1129:THR:HB	3:N:1320:GLU:HG3	1.42	0.97
3:N:18:ILE:HG23	3:N:518:PRO:HG3	1.43	0.97
3:D:1087:ARG:CG	3:D:1236:LEU:HD22	1.94	0.97
3:D:539:ASP:HB3	3:D:600:LEU:HB3	1.46	0.97
3:D:522:PRO:HA	3:D:525:ARG:HH11	1.26	0.97
2:C:399:ASN:HD21	2:C:402:SER:HB3	1.29	0.97
2:C:399:ASN:ND2	2:C:402:SER:HB3	1.78	0.97
1:A:63:HIS:HB3	2:C:746:GLY:HA2	1.46	0.97
3:N:1129:THR:HG23	3:N:1130:ARG:N	1.79	0.97
2:M:422:ARG:HB3	7:Z:1:DG:C2	1.99	0.97
2:C:1042:ALA:HB2	3:D:1227:GLN:NE2	1.80	0.96
3:N:618:LEU:HD12	3:N:1467:ILE:HG12	0.97	0.96
3:N:1442:ASN:O	3:N:1446:VAL:CG2	2.12	0.96
2:C:694:LEU:HD21	2:C:868:ASP:HB3	1.47	0.96
3:N:783:ARG:HE	3:N:1029:ARG:HD3	1.30	0.96
3:D:1211:MET:HG2	3:D:1212:ALA:H	1.29	0.96
3:D:1109:GLU:HG2	3:D:1201:CYS:HA	1.46	0.96
3:N:843:PHE:HB2	3:N:866:VAL:HG22	1.48	0.96
3:D:900:ILE:O	3:D:902:LEU:CD2	2.14	0.96
3:D:1096:ARG:HH21	3:D:1440:PHE:HD2	1.01	0.96
3:N:1268:PRO:HG3	3:N:1329:ALA:HB1	1.47	0.96
2:C:336:VAL:CA	2:C:339:LEU:HD12	1.94	0.96
2:C:50:GLU:HB2	2:C:266:ARG:NH1	1.80	0.96
3:D:565:ILE:HD12	3:D:565:ILE:H	1.30	0.96
3:N:783:ARG:HH21	3:N:1029:ARG:CB	1.79	0.95
2:M:861:LEU:HD22	2:M:863:ASP:HB3	1.44	0.95
2:C:630:ARG:CD	2:C:634:GLY:HA2	1.95	0.95
2:C:89:THR:HG21	2:C:383:ARG:HH12	1.29	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1209:LEU:HD23	3:D:1211:MET:H	1.28	0.95
2:C:409:ARG:HA	2:C:454:SER:HA	1.48	0.95
3:N:764:LEU:HD23	3:N:767:HIS:CE1	2.01	0.95
3:N:1220:ALA:HB1	3:N:1223:ILE:HD13	1.47	0.95
3:N:483:HIS:CB	3:N:484:PRO:HD3	1.97	0.95
2:M:395:LYS:HE2	2:M:403:SER:HB2	1.46	0.95
3:D:899:LEU:HD22	3:D:917:GLN:CB	1.97	0.95
1:A:43:ILE:HG23	1:A:47:SER:OG	1.66	0.95
3:N:646:LYS:HB2	3:N:688:TRP:CZ3	2.02	0.95
2:M:973:VAL:O	2:M:974:LEU:HD12	1.65	0.95
3:N:695:ILE:HD11	3:N:718:PRO:HB2	1.44	0.95
2:C:260:LEU:HB3	2:C:291:ALA:HB1	1.46	0.94
2:M:329:GLY:HA3	2:M:489:THR:HG23	1.49	0.94
3:N:1462:LEU:HD23	3:N:1473:PRO:HD2	1.49	0.94
2:C:861:LEU:HG	2:C:862:PRO:HD2	1.49	0.94
2:M:86:LYS:HD3	2:M:813:VAL:HB	1.46	0.94
2:M:260:LEU:HB3	2:M:291:ALA:HB1	1.50	0.94
2:M:1115:LEU:HD12	2:M:1115:LEU:H	1.29	0.94
2:M:7:GLY:H	2:M:904:PRO:HD2	1.31	0.94
3:D:814:ALA:HB1	3:D:818:ARG:HH21	1.32	0.94
7:I:10:DG:H2''	7:I:11:DG:OP2	1.65	0.94
2:M:861:LEU:CD2	2:M:863:ASP:H	1.80	0.94
3:D:660:LYS:HD2	3:D:694:VAL:HG22	1.48	0.94
2:M:1016:ILE:HG12	2:M:1017:THR:H	1.31	0.94
5:G:5:DC:H2''	5:G:6:DT:O5'	1.65	0.94
5:X:12:DA:H2''	5:X:13:DA:OP2	1.62	0.94
3:D:1112:CYS:CB	3:D:1195:GLN:HG2	1.97	0.94
1:L:28:LEU:HB2	1:L:193:ASP:HB2	1.48	0.94
2:M:1046:ALA:HB1	3:N:1471:LEU:HD11	1.47	0.94
1:K:176:ARG:HH11	2:M:865:THR:HB	1.32	0.94
5:X:4:DA:H2''	5:X:5:DC:C5'	1.97	0.94
1:A:32:PHE:HE1	1:B:221:HIS:HE2	1.06	0.94
3:N:1129:THR:HB	3:N:1320:GLU:CD	1.88	0.94
2:M:971:LYS:HE3	2:M:988:VAL:HG12	1.49	0.94
2:M:36:PRO:HG2	2:M:70:GLU:HB3	1.50	0.94
3:N:754:PHE:HA	4:O:24:ALA:CB	1.98	0.94
3:N:136:ASP:HB3	3:N:137:PRO:HD3	1.48	0.94
3:N:1271:LYS:NZ	3:N:1331:ASP:HB2	1.83	0.94
3:D:1042:ARG:HH21	3:D:1073:SER:HB2	0.77	0.94
2:C:439:CYS:SG	2:C:541:SER:N	2.41	0.94
2:M:405:ARG:CZ	2:M:566:THR:HG21	1.98	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:409:ARG:HB3	2:M:454:SER:OG	1.68	0.94
3:D:1042:ARG:HG2	3:D:1061:PHE:HE1	1.33	0.93
3:N:693:GLU:HA	4:O:48:MET:CE	1.98	0.93
2:C:227:PHE:HD2	2:C:237:ARG:HE	1.12	0.93
2:M:1015:LEU:H	6:Y:5:C:N4	1.66	0.93
3:D:960:LYS:HE3	3:D:964:LEU:CD1	1.97	0.93
3:N:521:PRO:HD2	3:N:524:LEU:HD22	1.49	0.93
3:N:1109:GLU:CG	3:N:1201:CYS:HA	1.97	0.93
3:D:899:LEU:HD22	3:D:917:GLN:HB3	1.48	0.93
3:D:1095:THR:HG21	3:D:1230:GLY:HA3	1.49	0.93
3:D:603:LEU:O	3:D:606:ILE:HG22	1.67	0.93
3:D:739:ASP:H	6:H:15:C:H5"	1.33	0.93
3:D:1256:LEU:HG	3:D:1260:ILE:HD11	1.50	0.93
2:M:144:PRO:HG2	2:M:265:ARG:NH1	1.83	0.93
3:N:783:ARG:NE	3:N:1029:ARG:CD	2.29	0.93
2:M:964:LYS:O	2:M:968:LEU:HG	1.69	0.93
2:C:65:VAL:HB	2:C:101:ILE:HB	1.50	0.93
3:D:1101:VAL:HG13	3:D:1428:ALA:HB2	1.47	0.93
3:N:1098:LEU:HD23	3:N:1226:ALA:HA	1.48	0.92
2:C:50:GLU:CA	2:C:266:ARG:CZ	2.46	0.92
3:N:646:LYS:NZ	3:N:688:TRP:NE1	2.17	0.92
3:N:1277:ILE:HD12	3:N:1301:LYS:HB2	1.51	0.92
3:N:157:GLU:HA	3:N:160:GLU:CD	1.89	0.92
5:X:27:DC:OP2	5:X:27:DC:H6	1.51	0.92
2:C:50:GLU:HA	2:C:266:ARG:NH2	1.83	0.92
5:G:6:DT:H2"	5:G:7:DA:OP2	1.67	0.92
5:X:4:DA:C2'	5:X:5:DC:H5"	1.98	0.92
2:M:762:LYS:HA	2:M:786:LYS:HD2	1.50	0.92
2:M:404:LEU:HA	2:M:407:LYS:CD	1.99	0.92
3:N:455:ARG:HD3	3:N:463:GLN:HG3	1.51	0.92
2:M:157:ARG:NH1	2:M:314:THR:HB	1.84	0.92
1:A:27:PRO:HG2	1:A:186:LEU:HD13	1.49	0.92
2:C:1034:GLU:HA	2:C:1037:VAL:HG23	1.51	0.92
3:D:108:VAL:HB	3:D:109:PRO:HD3	1.51	0.92
3:N:1435:LEU:CD2	3:N:1464:GLU:HB2	2.00	0.92
3:N:600:LEU:HD12	3:N:600:LEU:H	1.33	0.92
2:M:1090:LYS:HZ3	2:M:1112:PHE:HE1	1.04	0.92
3:D:1003:VAL:HG11	3:D:1036:ARG:HD2	1.51	0.92
2:M:1097:LEU:HD22	2:M:1097:LEU:H	1.35	0.92
3:N:701:LEU:HD12	3:N:701:LEU:H	1.32	0.92
3:D:864:VAL:HG12	3:D:865:THR:H	1.34	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:783:ARG:CZ	3:N:1029:ARG:HD2	2.00	0.91
3:N:618:LEU:CD1	3:N:1467:ILE:CD1	2.48	0.91
2:M:753:ASP:O	2:M:792:VAL:HG23	1.69	0.91
1:A:176:ARG:NH1	2:C:865:THR:HB	1.85	0.91
1:A:39:PRO:HG3	1:B:39:PRO:CG	2.00	0.91
2:M:157:ARG:CZ	2:M:314:THR:HB	1.99	0.91
2:M:843:HIS:CE1	2:M:884:GLN:HA	2.05	0.91
3:D:1095:THR:CG2	3:D:1230:GLY:HA3	2.00	0.91
1:A:222:LEU:HD23	1:B:219:ARG:HB2	1.49	0.91
3:D:882:PHE:O	3:D:886:VAL:HG23	1.70	0.91
2:C:674:VAL:HG23	2:C:869:VAL:HG13	1.53	0.91
3:D:109:PRO:HB3	3:D:494:LYS:NZ	1.86	0.91
2:M:73:LEU:HB2	2:M:93:PRO:O	1.69	0.91
3:D:1087:ARG:HG3	3:D:1236:LEU:CD2	1.97	0.91
3:N:705:ALA:HB1	6:Y:14:G:H21	1.32	0.91
3:N:882:PHE:O	3:N:886:VAL:HG23	1.70	0.91
2:C:395:LYS:HE2	2:C:403:SER:HB2	1.50	0.91
3:D:654:LYS:HB3	3:D:655:PRO:HD3	1.51	0.91
4:E:54:LEU:HG	4:E:58:PRO:HG2	1.50	0.91
3:N:860:LEU:HA	3:N:877:PRO:HB2	1.50	0.91
3:D:897:TRP:CB	3:D:900:ILE:HD11	1.99	0.91
2:C:861:LEU:HD23	2:C:863:ASP:N	1.85	0.91
2:M:312:ALA:HB1	2:M:318:PRO:HG2	1.52	0.91
3:D:615:ARG:HH12	3:D:1096:ARG:NE	1.69	0.90
3:D:610:LYS:O	3:D:615:ARG:HG2	1.70	0.90
2:M:490:GLU:HB3	2:M:493:ARG:NH1	1.84	0.90
3:D:1195:GLN:HG3	3:D:1196:THR:N	1.85	0.90
4:E:40:LEU:HD21	4:E:67:GLU:HA	1.51	0.90
2:M:492:ASP:HB3	2:M:518:LYS:HD2	1.51	0.90
3:N:1465:ASN:OD1	3:N:1473:PRO:HG3	1.71	0.90
3:N:925:GLU:HB3	4:O:6:ILE:CG2	2.01	0.90
2:M:490:GLU:HA	2:M:493:ARG:CD	2.00	0.90
3:N:181:ASP:CB	3:N:441:ARG:HD3	2.01	0.90
2:M:631:SER:HB3	2:M:635:THR:H	1.36	0.90
2:M:402:SER:HA	2:M:566:THR:HG23	1.52	0.90
3:D:1112:CYS:H	3:D:1201:CYS:HB3	1.36	0.90
5:G:23:DG:N2	6:H:11:C:O2	2.05	0.90
2:M:404:LEU:HA	2:M:407:LYS:HD2	1.51	0.90
2:M:675:ALA:CA	2:M:989:VAL:HG12	2.02	0.90
3:D:1256:LEU:CG	3:D:1260:ILE:HD11	2.02	0.90
2:C:162:ILE:HB	2:C:172:ILE:HB	1.54	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:861:LEU:HD23	2:M:863:ASP:H	1.36	0.90
3:D:1083:ASP:O	3:D:1087:ARG:HG2	1.70	0.90
3:D:900:ILE:O	3:D:902:LEU:HD23	1.70	0.90
3:N:522:PRO:HA	3:N:525:ARG:NH1	1.86	0.90
2:C:64:LEU:HD22	2:C:359:MET:HG3	1.51	0.90
3:N:108:VAL:HB	3:N:109:PRO:HD3	1.54	0.89
2:M:691:SER:OG	2:M:693:GLU:HB3	1.71	0.89
1:K:7:LYS:HD2	1:K:186:LEU:HD21	1.51	0.89
2:C:247:PRO:HD2	2:C:250:ARG:HH12	1.36	0.89
2:C:1024:LYS:HB2	6:H:4:G:N2	1.86	0.89
7:Z:11:DG:H2''	7:Z:12:DT:OP2	1.70	0.89
3:D:554:LEU:O	3:D:558:LEU:HG	1.71	0.89
2:M:537:LYS:HD2	2:M:905:ILE:HD13	1.53	0.89
3:N:98:PRO:HG2	3:N:462:GLN:CD	1.92	0.89
3:D:1087:ARG:HE	3:D:1236:LEU:CD2	1.84	0.89
2:C:58:ASP:O	2:C:59:LYS:HB2	1.72	0.89
3:N:1236:LEU:HD12	3:N:1256:LEU:HB2	1.54	0.89
3:N:1280:VAL:HA	3:N:1318:TYR:HA	1.54	0.89
2:C:720:GLU:HG2	2:C:760:SER:HB3	1.54	0.89
1:L:28:LEU:HG	1:L:193:ASP:O	1.72	0.89
1:K:178:ALA:HB2	2:M:864:GLY:N	1.88	0.89
2:M:328:LEU:HD13	2:M:433:THR:HB	1.53	0.89
2:M:79:PRO:HG2	2:M:82:GLU:HB2	1.55	0.89
3:D:705:ALA:CB	3:D:706:PRO:HD3	2.02	0.89
2:M:650:ARG:HG2	2:M:653:ASP:HB2	1.53	0.89
2:M:313:LEU:HD13	2:M:321:GLU:HG2	1.54	0.89
3:D:632:VAL:O	3:D:727:GLN:HA	1.73	0.89
3:D:1109:GLU:CG	3:D:1201:CYS:HA	2.03	0.89
3:D:1438:ALA:N	3:D:1446:VAL:HG11	1.87	0.89
2:M:687:ALA:O	2:M:688:ILE:HD12	1.73	0.89
5:X:14:DG:H2''	5:X:15:DC:OP2	1.72	0.89
2:M:676:ILE:HG22	2:M:988:VAL:O	1.73	0.89
2:M:918:LEU:HD23	2:M:968:LEU:HA	1.52	0.89
2:C:312:ALA:HB1	2:C:318:PRO:HG2	1.54	0.89
2:C:857:ASP:HB2	2:C:978:ARG:HG2	1.55	0.89
3:N:1281:VAL:HG11	3:N:1313:VAL:HG13	1.54	0.89
3:D:26:VAL:HG11	3:D:44:LEU:HD23	1.55	0.88
6:H:9:C:H2'	6:H:10:G:O4'	1.72	0.88
3:N:697:GLY:HA2	3:N:717:GLN:NE2	1.87	0.88
3:N:1305:LEU:HD12	3:N:1311:LEU:HD22	1.54	0.88
3:N:27:GLU:HB3	3:N:41:ARG:HH12	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:688:ILE:HG22	2:M:849:VAL:HA	1.53	0.88
3:D:483:HIS:HB2	3:D:484:PRO:HD3	1.54	0.88
3:D:582:LEU:HA	3:D:603:LEU:HD12	1.55	0.88
5:X:19:DG:H2''	5:X:20:DC:H5'	1.56	0.88
2:M:445:GLU:HA	2:M:449:ILE:HD12	1.54	0.88
3:D:703:ASN:O	3:D:745:MET:HB3	1.74	0.88
3:N:1128:VAL:HB	3:N:1133:ARG:NH2	1.88	0.88
2:M:1095:LEU:HD11	3:N:603:LEU:HB3	1.55	0.88
3:N:98:PRO:HG2	3:N:462:GLN:HE22	1.34	0.88
5:X:7:DA:H2''	5:X:8:DC:H5'	1.54	0.88
2:M:431:HIS:HB3	2:M:434:HIS:NE2	1.87	0.88
4:O:54:LEU:HA	4:O:58:PRO:HG2	1.56	0.88
2:M:273:GLY:HA2	2:M:276:LYS:HD2	1.56	0.88
1:L:185:ARG:HH22	3:N:688:TRP:HB3	1.18	0.88
2:C:1089:VAL:HG13	2:C:1099:VAL:HB	1.54	0.88
3:D:136:ASP:CB	3:D:137:PRO:HD3	2.04	0.88
6:H:7:G:O2'	6:H:8:G:H5'	1.73	0.88
2:C:1045:ALA:HB1	2:C:1048:THR:HB	1.54	0.88
2:C:52:PHE:CE1	2:C:68:PHE:HB2	2.04	0.87
3:D:1379:VAL:HG12	3:D:1419:PRO:HA	1.56	0.87
3:D:615:ARG:O	3:D:619:LEU:HG	1.74	0.87
1:A:42:ARG:HD3	1:B:35:THR:HA	1.54	0.87
3:N:456:MET:HA	3:N:460:ALA:HB2	1.55	0.87
3:N:482:LYS:HE2	3:N:1384:PRO:HD2	1.56	0.87
5:X:15:DC:H1'	5:X:16:DT:H5'	1.56	0.87
3:N:160:GLU:HG2	3:N:165:LYS:HG3	1.56	0.87
3:D:610:LYS:C	3:D:615:ARG:HG2	1.94	0.87
2:M:328:LEU:HD22	2:M:433:THR:HG22	1.55	0.87
3:N:132:TYR:HD2	3:N:154:THR:HB	1.39	0.87
2:M:31:GLN:HB3	2:M:71:TYR:OH	1.72	0.87
3:N:465:LEU:HD22	3:N:510:GLU:HA	1.54	0.87
3:N:897:TRP:HA	3:N:900:ILE:HG12	1.55	0.87
7:Z:1:DG:P	7:Z:1:DG:H3'	2.15	0.87
3:N:520:LEU:HD23	3:N:525:ARG:HD2	1.56	0.87
3:N:952:ASP:HA	3:N:1062:ARG:HH21	1.36	0.87
2:M:65:VAL:HB	2:M:101:ILE:HB	1.56	0.87
2:M:211:LEU:HB2	2:M:308:ARG:HD2	1.55	0.87
5:G:19:DG:H2''	5:G:20:DC:O5'	1.74	0.87
3:N:646:LYS:HE3	3:N:688:TRP:CZ2	2.09	0.87
3:D:796:ARG:HB2	3:D:828:LYS:HD3	1.57	0.87
3:D:799:LYS:HB3	3:D:826:PRO:HG2	1.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:900:ILE:HD12	3:D:902:LEU:CD2	2.04	0.87
3:N:814:ALA:HB1	3:N:818:ARG:NH2	1.88	0.87
3:N:1295:GLU:HG2	3:N:1300:SER:HB3	1.54	0.87
2:C:796:GLU:HB2	2:C:1004:LYS:HZ3	1.40	0.87
3:N:1486:VAL:HA	4:O:74:VAL:O	1.74	0.86
2:M:143:SER:HB2	2:M:276:LYS:HE2	1.55	0.86
3:D:1211:MET:HG2	3:D:1212:ALA:N	1.90	0.86
3:D:1434:TRP:CZ3	3:D:1455:LYS:HB3	2.10	0.86
4:O:9:LEU:HA	4:O:12:MET:SD	2.15	0.86
7:Z:1:DG:H3'	7:Z:1:DG:OP3	1.75	0.86
2:M:328:LEU:HD23	2:M:437:ARG:HD3	1.55	0.86
2:C:36:PRO:HG2	2:C:70:GLU:HB3	1.55	0.86
3:D:522:PRO:HA	3:D:525:ARG:NH1	1.90	0.86
2:M:260:LEU:HB3	2:M:291:ALA:CB	2.06	0.86
3:N:1129:THR:HG23	3:N:1130:ARG:H	1.39	0.86
2:M:479:VAL:HG22	2:M:506:ASN:HA	1.57	0.86
1:A:104:GLU:HA	1:A:136:GLY:O	1.75	0.86
2:C:129:ILE:N	2:C:129:ILE:HD12	1.90	0.86
3:N:693:GLU:HA	4:O:48:MET:HE2	1.55	0.86
2:M:987:ILE:HG23	3:N:948:THR:HG21	1.54	0.86
2:M:1016:ILE:HD13	2:M:1016:ILE:H	1.37	0.86
2:C:90:TYR:O	2:C:119:PRO:HA	1.74	0.86
3:D:1330:ILE:HD13	3:D:1347:TYR:OH	1.74	0.86
3:D:1426:LYS:HA	3:D:1429:LEU:HD22	1.57	0.86
5:G:17:DA:H2''	5:G:18:DC:C5'	2.04	0.86
3:N:1209:LEU:HD23	3:N:1210:SER:H	1.41	0.86
2:M:139:GLN:OE1	2:M:415:PRO:HD3	1.76	0.86
2:C:270:GLY:O	2:C:274:ARG:HB3	1.76	0.86
4:E:36:LYS:N	4:E:95:VAL:HG21	1.91	0.86
3:D:834:THR:HG22	3:D:838:ARG:HH11	1.39	0.86
3:N:524:LEU:O	3:N:526:PRO:HD3	1.75	0.86
3:N:632:VAL:O	3:N:727:GLN:HA	1.75	0.86
3:N:899:LEU:CB	3:N:917:GLN:HG2	2.05	0.86
2:C:326:ASP:HB2	2:C:431:HIS:ND1	1.91	0.86
7:Z:11:DG:C2'	7:Z:12:DT:H71	2.06	0.86
2:C:690:ILE:HG12	2:C:691:SER:N	1.91	0.86
3:N:522:PRO:HA	3:N:525:ARG:HH11	1.37	0.86
3:N:73:CYS:HB3	3:N:76:CYS:O	1.75	0.86
2:M:808:ARG:HH21	2:M:820:ARG:HH21	1.17	0.86
2:C:579:VAL:HG13	2:C:842:ARG:HH22	1.39	0.86
3:D:1103:HIS:CG	3:D:1104:GLU:H	1.94	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:872:ASN:OD1	2:C:874:LEU:HB2	1.76	0.86
2:C:49:ARG:HA	2:C:52:PHE:HB3	1.57	0.85
3:D:628:ARG:HE	5:G:22:DA:H4'	1.41	0.85
3:N:498:VAL:O	3:N:501:ALA:HB3	1.77	0.85
3:N:660:LYS:HD2	3:N:694:VAL:HG22	1.56	0.85
3:N:166:GLN:O	3:N:167:GLU:CB	2.21	0.85
1:B:74:ASP:HB3	3:D:872:ARG:HH22	1.39	0.85
1:A:154:GLU:H	1:A:154:GLU:CD	1.77	0.85
4:O:40:LEU:HD21	4:O:67:GLU:HA	1.57	0.85
3:D:1066:THR:HG22	3:D:1069:GLU:CD	1.95	0.85
3:D:486:ARG:HA	3:D:489:ARG:HG2	1.57	0.85
3:D:1093:TYR:CE1	5:G:17:DA:H1'	2.10	0.85
3:N:1485:GLN:HG3	4:O:79:LEU:N	1.91	0.85
3:N:618:LEU:HD12	3:N:1467:ILE:CD1	2.07	0.85
3:N:1094:LEU:HD12	3:N:1097:LYS:HD2	1.57	0.85
3:N:693:GLU:HG3	4:O:48:MET:SD	2.16	0.85
2:M:342:ASP:O	2:M:346:VAL:HG23	1.77	0.85
2:C:18:LEU:HD12	2:C:18:LEU:H	1.41	0.85
3:N:1093:TYR:CE1	5:X:18:DC:H5"	2.11	0.85
7:Z:12:DT:H2"	7:Z:13:DA:C8	2.11	0.85
2:M:270:GLY:O	2:M:274:ARG:HB3	1.76	0.85
2:C:16:PRO:HD3	2:C:458:TYR:CD2	2.12	0.85
3:N:1114:THR:HB	3:N:1195:GLN:HB3	1.59	0.85
3:D:906:GLN:HB3	3:D:911:LEU:HD11	1.56	0.85
1:L:24:VAL:HG13	1:L:196:THR:HG22	1.59	0.85
1:A:178:ALA:HB2	2:C:864:GLY:H	1.38	0.85
3:D:1194:CYS:HB2	3:D:1204:CYS:SG	2.17	0.85
3:D:52:PRO:HD2	3:D:85:VAL:HG21	1.59	0.85
3:D:1438:ALA:CA	3:D:1446:VAL:HG11	2.05	0.84
4:E:54:LEU:HA	4:E:58:PRO:HG2	1.58	0.84
4:O:54:LEU:CD2	4:O:63:TRP:HE1	1.90	0.84
1:B:228:PRO:O	1:B:229:GLN:HG3	1.77	0.84
2:C:918:LEU:HB3	2:C:968:LEU:HD23	1.58	0.84
2:M:758:ARG:HB3	2:M:788:THR:O	1.76	0.84
5:X:24:DC:H2"	5:X:25:DG:H5'	1.59	0.84
3:N:1128:VAL:HG12	3:N:1129:THR:HG22	1.59	0.84
2:M:862:PRO:HB3	2:M:929:ARG:HH22	1.40	0.84
3:N:864:VAL:HG12	3:N:865:THR:H	1.40	0.84
2:C:281:LEU:HD12	2:C:309:TYR:HB2	1.58	0.84
6:Y:6:C:H3'	6:Y:7:G:C8	2.13	0.84
2:M:165:LEU:HG	2:M:166:PRO:HA	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:698:LYS:HG2	4:O:59:ASN:CG	1.96	0.84
2:M:63:GLY:HA3	2:M:103:LYS:HG3	1.58	0.84
3:D:52:PRO:HG2	3:D:80:VAL:HG13	1.58	0.84
3:D:1216:SER:CB	4:E:16:LYS:H	1.89	0.84
2:C:302:VAL:O	2:C:305:PRO:HD2	1.77	0.84
2:M:396:ASP:HB3	2:M:406:HIS:CD2	2.11	0.84
3:N:19:ARG:NH2	3:N:516:ALA:HB2	1.93	0.84
2:M:936:VAL:HA	2:M:940:GLU:OE2	1.77	0.84
2:M:437:ARG:C	2:M:438:ILE:HD12	1.98	0.84
3:N:1274:ILE:HG22	3:N:1301:LYS:HZ1	1.43	0.84
3:D:117:ASP:HB2	3:D:495:ARG:NH1	1.93	0.84
3:D:737:ASN:HB3	6:H:15:C:O2'	1.77	0.84
3:D:743:ASP:OD2	6:H:14:G:H4'	1.76	0.84
3:N:767:HIS:CD2	4:O:6:ILE:HG12	2.11	0.84
2:M:676:ILE:HG12	2:M:873:PRO:HG3	1.59	0.84
2:C:1081:VAL:HB	2:C:1086:ARG:HE	1.40	0.84
2:C:1090:LYS:NZ	3:D:21:TRP:HB3	1.93	0.84
2:C:395:LYS:HE3	2:C:407:LYS:HD2	1.59	0.83
3:N:477:LEU:CD1	3:N:496:LEU:HD13	2.07	0.83
3:N:483:HIS:HB2	3:N:484:PRO:CD	2.07	0.83
1:B:100:LEU:HD12	1:B:115:LEU:HD21	1.57	0.83
1:K:76:VAL:O	1:K:79:ILE:HG13	1.77	0.83
3:D:10:ILE:HG22	3:D:1451:ALA:HA	1.60	0.83
2:M:1083:GLU:OE1	2:M:1086:ARG:HD2	1.78	0.83
3:N:12:LEU:HD22	3:N:511:TRP:HB2	1.61	0.83
1:K:178:ALA:CB	2:M:864:GLY:H	1.89	0.83
3:N:1292:VAL:HG23	3:N:1305:LEU:HG	1.60	0.83
2:M:490:GLU:CA	2:M:493:ARG:HD3	2.06	0.83
1:L:185:ARG:HH22	3:N:688:TRP:HB2	1.43	0.83
1:K:176:ARG:NH1	2:M:865:THR:HB	1.92	0.83
2:M:44:ILE:HG22	2:M:45:GLN:N	1.94	0.83
1:K:9:PRO:HB3	1:K:25:LEU:HG	1.60	0.83
3:D:1033:GLN:O	3:D:1037:GLN:HB3	1.78	0.83
2:M:675:ALA:HA	2:M:989:VAL:CG1	2.04	0.83
2:C:144:PRO:HG2	2:C:265:ARG:HH11	1.43	0.83
2:M:313:LEU:HB2	2:M:321:GLU:HG3	1.59	0.83
1:A:112:ARG:HH21	1:A:125:PRO:HB2	1.43	0.83
2:C:1034:GLU:HA	2:C:1037:VAL:CG2	2.08	0.83
3:D:614:PHE:CE2	3:D:1443:THR:HB	2.14	0.83
2:M:404:LEU:O	2:M:407:LYS:HB2	1.78	0.83
2:C:20:GLU:HG2	2:C:21:ILE:HD12	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Z:1:DG:H2''	7:Z:2:DT:OP2	1.78	0.83
2:C:861:LEU:HD21	2:C:925:TYR:CE2	2.14	0.83
3:D:1472:ILE:H	3:D:1472:ILE:CD1	1.83	0.83
2:C:260:LEU:HB3	2:C:291:ALA:CB	2.08	0.83
2:C:684:PHE:N	2:C:687:ALA:HB3	1.92	0.83
2:M:162:ILE:HB	2:M:172:ILE:HB	1.60	0.83
3:D:65:ARG:HG3	3:D:66:GLN:H	1.44	0.83
2:C:388:ARG:HD2	5:G:27:DC:H4'	1.58	0.83
3:D:705:ALA:HB3	3:D:706:PRO:CD	2.08	0.83
2:C:922:PHE:HB3	2:C:964:LYS:NZ	1.94	0.83
4:E:41:GLU:HG2	4:E:42:PRO:HD3	1.61	0.83
2:M:186:VAL:HG23	2:M:187:ASN:H	1.43	0.83
3:D:738:ALA:HA	6:H:15:C:H4'	1.60	0.83
3:N:1128:VAL:HG13	3:N:1320:GLU:OE2	1.79	0.83
2:M:34:VAL:HB	2:M:38:LYS:HG3	1.58	0.83
3:N:675:ARG:O	3:N:678:GLU:HG2	1.79	0.83
4:E:28:GLN:HB3	4:E:32:ARG:HH12	1.43	0.82
3:N:646:LYS:HD2	3:N:688:TRP:CE2	2.13	0.82
5:X:13:DA:H2''	5:X:14:DG:OP2	1.77	0.82
3:D:646:LYS:HG3	3:D:647:ARG:H	1.43	0.82
3:D:728:LEU:HD11	3:D:732:VAL:HG21	1.58	0.82
3:N:1201:CYS:SG	3:N:1204:CYS:N	2.51	0.82
2:C:300:ASP:O	2:C:300:ASP:CG	2.16	0.82
2:C:1016:ILE:HG12	2:C:1017:THR:N	1.95	0.82
3:N:625:TYR:CZ	3:N:655:PRO:HG2	2.13	0.82
3:D:1046:GLN:HA	3:D:1052:THR:HA	1.61	0.82
3:N:758:GLU:HB3	4:O:20:THR:HG21	1.61	0.82
5:X:11:DC:H2''	5:X:12:DA:OP2	1.77	0.82
3:D:899:LEU:HD22	3:D:917:GLN:HG3	1.60	0.82
2:C:199:VAL:HG13	2:C:235:LEU:HG	1.62	0.82
3:N:625:TYR:OH	3:N:655:PRO:CG	2.23	0.82
2:C:861:LEU:CD2	2:C:863:ASP:H	1.89	0.82
2:C:739:GLU:CG	2:C:742:VAL:HB	2.08	0.82
2:M:403:SER:O	2:M:407:LYS:HG3	1.79	0.82
6:Y:5:C:H2'	6:Y:5:C:O2	1.77	0.82
3:D:530:VAL:O	6:H:4:G:H5'	1.80	0.82
3:N:486:ARG:HA	3:N:489:ARG:HG2	1.62	0.82
7:Z:5:DC:H2''	7:Z:6:DT:OP2	1.79	0.82
2:C:945:ARG:HG2	2:C:949:LYS:HE3	1.59	0.82
2:C:191:PHE:HB2	2:C:241:LEU:HD11	1.62	0.82
3:D:951:ILE:HD12	3:D:1062:ARG:HE	1.43	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:15:LEU:HD12	2:C:15:LEU:H	1.44	0.82
3:N:607:LEU:HD23	3:N:613:ARG:HB3	1.61	0.82
1:A:152:PRO:HB3	1:A:154:GLU:OE1	1.80	0.82
2:C:724:ARG:HG3	2:C:737:LEU:HD22	1.60	0.82
3:D:54:LYS:NZ	6:H:2:C:OP1	2.12	0.82
3:D:1189:ARG:HD2	3:D:1204:CYS:SG	2.20	0.82
3:D:907:GLU:HG2	3:D:908:LYS:N	1.93	0.82
2:C:31:GLN:CD	2:C:71:TYR:HH	1.83	0.82
3:D:628:ARG:NE	5:G:22:DA:H4'	1.95	0.82
2:M:1040:LEU:HD23	2:M:1049:LEU:CD1	2.10	0.82
2:C:129:ILE:N	2:C:129:ILE:CD1	2.42	0.82
2:C:404:LEU:HA	2:C:407:LYS:HD3	1.62	0.82
3:D:656:PHE:HB3	3:D:694:VAL:HG11	1.62	0.82
2:M:338:GLU:O	2:M:341:THR:HG22	1.79	0.82
2:M:579:VAL:HG13	2:M:842:ARG:HH22	1.44	0.82
2:C:328:LEU:HD11	2:C:434:HIS:CD2	2.15	0.81
3:D:641:GLN:HB3	3:D:717:GLN:O	1.79	0.81
4:O:54:LEU:HD21	4:O:63:TRP:HE1	1.42	0.81
3:N:899:LEU:HB2	3:N:917:GLN:HG2	1.62	0.81
3:N:1059:SER:HB2	3:N:1065:LEU:HD12	1.62	0.81
3:D:1041:LEU:HD13	3:D:1045:MET:SD	2.18	0.81
3:D:631:ILE:CD1	3:D:743:ASP:HB2	2.09	0.81
5:G:5:DC:H2''	5:G:6:DT:C5'	2.09	0.81
3:N:609:GLY:O	3:N:615:ARG:HB2	1.79	0.81
2:C:265:ARG:HB3	2:C:267:TYR:CD2	2.15	0.81
2:C:674:VAL:HG12	2:C:990:GLY:O	1.80	0.81
1:L:110:LYS:HD3	1:L:126:ASP:HA	1.62	0.81
3:D:631:ILE:HD11	3:D:743:ASP:HB2	1.62	0.81
3:N:1389:LEU:CG	3:N:1390:LEU:H	1.93	0.81
3:D:1410:GLU:CG	2:M:374:ASN:HA	2.10	0.81
3:N:183:GLU:HG2	3:N:184:GLU:N	1.95	0.81
7:Z:11:DG:OP2	7:Z:11:DG:H8	1.61	0.81
3:D:711:LEU:HD12	3:D:778:LEU:HD23	1.61	0.81
3:D:1432:LYS:HB2	3:D:1432:LYS:HZ2	1.44	0.81
3:D:744:GLN:NE2	5:G:21:DG:H21	1.79	0.81
5:G:21:DG:H2''	5:G:22:DA:C5'	2.11	0.81
2:M:1014:SER:HB3	2:M:1017:THR:O	1.80	0.81
3:D:1098:LEU:HD23	3:D:1226:ALA:HA	1.61	0.81
1:L:185:ARG:HH12	3:N:688:TRP:HB3	1.43	0.81
5:X:7:DA:H2'	5:X:8:DC:C6	2.15	0.81
3:D:1087:ARG:HE	3:D:1236:LEU:HD21	1.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:80:LEU:HG	3:N:844:ALA:HA	1.63	0.81
2:C:1041:GLU:HB3	3:D:1223:ILE:HG12	1.61	0.81
3:D:52:PRO:HD2	3:D:85:VAL:CG2	2.11	0.81
2:M:679:PHE:C	3:N:943:THR:HG22	2.00	0.81
2:C:1060:ILE:HG23	2:C:1061:GLU:H	1.43	0.81
3:D:1460:ILE:HG13	3:D:1460:ILE:O	1.78	0.81
2:C:49:ARG:HA	2:C:52:PHE:CB	2.11	0.81
3:N:581:LEU:HD23	3:N:581:LEU:H	1.43	0.81
2:C:263:ASP:HB2	2:C:264:PRO:HD3	1.60	0.81
1:B:24:VAL:HG13	1:B:196:THR:HG22	1.63	0.81
3:D:897:TRP:HA	3:D:900:ILE:CD1	2.11	0.81
2:C:1014:SER:HB3	2:C:1017:THR:O	1.80	0.81
2:M:875:GLY:HA2	3:N:1029:ARG:NH2	1.96	0.81
3:N:639:LEU:HD12	3:N:640:HIS:H	1.45	0.81
3:D:696:HIS:CD2	4:E:59:ASN:N	2.48	0.81
2:C:928:LYS:NZ	2:C:932:GLU:HG3	1.96	0.81
2:C:186:VAL:HG23	2:C:187:ASN:H	1.44	0.81
2:M:611:ILE:HD11	2:M:641:PRO:HG3	1.63	0.81
3:N:1435:LEU:HD23	3:N:1464:GLU:CB	2.06	0.80
3:D:637:LEU:HD11	3:D:642:CYS:HA	1.61	0.80
3:D:1472:ILE:HD13	3:D:1472:ILE:N	1.94	0.80
3:D:1216:SER:HB3	4:E:16:LYS:H	1.44	0.80
2:C:918:LEU:HD23	2:C:968:LEU:HA	1.62	0.80
2:C:328:LEU:HD13	2:C:433:THR:CB	2.09	0.80
2:C:328:LEU:CD1	2:C:433:THR:HB	2.09	0.80
2:C:457:ALA:HB3	2:C:538:GLN:HA	1.64	0.80
2:C:1115:LEU:CG	3:D:85:VAL:HG12	2.10	0.80
3:N:728:LEU:HD12	3:N:729:HIS:H	1.46	0.80
3:N:638:LYS:HD3	3:N:932:ASP:OD2	1.81	0.80
2:M:437:ARG:NH2	2:M:488:ALA:HA	1.96	0.80
2:M:157:ARG:HD3	2:M:314:THR:CG2	2.11	0.80
3:D:671:LYS:O	3:D:675:ARG:HG3	1.80	0.80
2:C:141:HIS:NE2	2:C:332:ARG:HB3	1.97	0.80
5:G:17:DA:C2'	5:G:18:DC:H5'	2.11	0.80
3:D:610:LYS:HB2	5:G:18:DC:OP2	1.81	0.80
7:I:3:DA:H1'	7:I:4:DG:C5'	2.10	0.80
2:M:304:LEU:HD23	2:M:305:PRO:HD3	1.60	0.80
2:C:31:GLN:HB3	2:C:71:TYR:OH	1.82	0.80
2:C:831:ARG:HH12	2:C:1004:LYS:HG2	1.46	0.80
3:D:50:PHE:O	3:D:86:ARG:HA	1.81	0.80
2:C:697:ARG:O	2:C:699:PHE:N	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1191:PRO:O	3:D:1373:ARG:NH1	2.14	0.80
3:D:899:LEU:CD2	3:D:917:GLN:HG3	2.10	0.80
2:C:676:ILE:HG22	2:C:988:VAL:O	1.82	0.80
2:C:431:HIS:H	2:C:434:HIS:CE1	2.00	0.80
2:C:266:ARG:HA	2:C:288:ARG:CD	2.10	0.80
2:C:683:ASN:O	2:C:872:ASN:HB2	1.80	0.80
3:D:771:SER:HB3	3:D:778:LEU:HD13	1.64	0.80
3:D:1425:THR:O	3:D:1429:LEU:HD13	1.81	0.80
3:N:1213:ARG:HH22	4:O:14:ASP:HA	1.44	0.80
3:N:615:ARG:O	3:N:619:LEU:HG	1.82	0.80
1:A:42:ARG:NH1	1:B:34:VAL:HB	1.97	0.80
3:N:181:ASP:HB3	3:N:441:ARG:CD	2.11	0.80
3:D:1088:THR:HG23	3:D:1234:THR:CG2	2.12	0.80
3:D:1242:HIS:HB2	3:D:1251:ASP:HB2	1.64	0.80
1:B:212:ASN:O	1:B:215:VAL:HG22	1.80	0.80
3:N:693:GLU:O	4:O:48:MET:HE1	1.82	0.80
2:C:52:PHE:HZ	2:C:68:PHE:HB2	1.37	0.79
3:N:1472:ILE:CD1	3:N:1472:ILE:H	1.85	0.79
3:N:136:ASP:CB	3:N:137:PRO:HD3	2.11	0.79
5:X:8:DC:H2"	5:X:9:DC:OP2	1.82	0.79
3:D:565:ILE:HD12	3:D:565:ILE:N	1.97	0.79
3:D:1088:THR:HG23	3:D:1234:THR:HG23	1.63	0.79
3:D:792:ILE:O	3:D:878:GLY:HA3	1.82	0.79
4:O:34:GLY:HA3	4:O:95:VAL:HB	1.64	0.79
3:N:493:ARG:CZ	3:N:1391:GLU:HA	2.12	0.79
2:M:89:THR:HG21	2:M:383:ARG:NH2	1.94	0.79
2:M:1067:TYR:O	2:M:1071:ILE:HG12	1.82	0.79
1:A:88:ARG:HD2	1:A:204:SER:O	1.82	0.79
1:L:92:PRO:HA	1:L:146:ARG:HH12	1.45	0.79
3:D:1096:ARG:NH2	3:D:1440:PHE:HD2	1.77	0.79
6:H:15:C:H6	6:H:15:C:OP2	1.66	0.79
1:K:177:VAL:O	2:M:864:GLY:HA2	1.82	0.79
3:N:1166:LEU:HD23	3:N:1166:LEU:H	1.48	0.79
2:M:1000:MET:HB2	2:M:1002:GLU:HG2	1.63	0.79
3:N:646:LYS:CD	3:N:688:TRP:CZ2	2.66	0.79
3:N:1389:LEU:HG	3:N:1390:LEU:H	1.47	0.79
2:M:693:GLU:CG	2:M:697:ARG:HH21	1.95	0.79
2:C:831:ARG:NH1	2:C:1004:LYS:HG2	1.98	0.79
1:A:106:PRO:HG3	1:A:134:GLU:CD	2.03	0.79
3:N:111:LYS:HG2	3:N:1448:THR:HG22	1.63	0.79
2:M:445:GLU:HA	2:M:449:ILE:CD1	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:498:GLN:OE1	3:D:1067:VAL:HB	1.81	0.79
1:L:137:ARG:NH2	1:L:139:ASN:HB3	1.97	0.79
2:M:398:THR:N	2:M:633:GLN:HG2	1.97	0.79
3:N:1200:VAL:HG13	3:N:1204:CYS:HB2	1.64	0.79
2:M:939:ARG:HA	2:M:939:ARG:NE	1.97	0.79
7:Z:2:DT:H1'	7:Z:3:DA:H5'	1.63	0.79
3:D:700:VAL:O	3:D:715:ALA:HA	1.82	0.79
1:L:26:GLU:HB2	1:L:27:PRO:HA	1.61	0.79
3:N:754:PHE:CA	4:O:24:ALA:HB1	2.08	0.79
3:D:960:LYS:CE	3:D:964:LEU:HD12	2.12	0.79
3:D:17:LYS:O	3:D:20:SER:HB3	1.81	0.79
4:O:43:GLU:HG3	4:O:44:GLU:H	1.47	0.79
3:D:1096:ARG:NH2	3:D:1440:PHE:CD2	2.50	0.79
2:M:396:ASP:HB3	2:M:406:HIS:CG	2.17	0.79
3:D:1112:CYS:N	3:D:1201:CYS:HB3	1.98	0.79
2:C:1016:ILE:HG12	2:C:1017:THR:H	1.48	0.78
3:N:760:ARG:NH1	4:O:61:VAL:HG23	1.96	0.78
6:Y:6:C:H6	6:Y:6:C:O5'	1.66	0.78
3:D:1003:VAL:HG13	3:D:1036:ARG:HD2	1.65	0.78
3:N:1016:PRO:HA	3:N:1021:TYR:HE1	1.48	0.78
3:N:27:GLU:HB3	3:N:41:ARG:NH1	1.97	0.78
2:C:332:ARG:CZ	2:C:464:LEU:HG	2.13	0.78
2:C:338:GLU:O	2:C:341:THR:HG22	1.84	0.78
3:D:1093:TYR:CZ	5:G:17:DA:H1'	2.19	0.78
3:D:10:ILE:HG13	3:D:1434:TRP:CZ2	2.18	0.78
3:D:10:ILE:HG22	3:D:1451:ALA:CA	2.13	0.78
3:N:501:ALA:HB1	3:N:1453:ALA:HB2	1.64	0.78
7:Z:16:DG:H2''	7:Z:17:DA:OP2	1.83	0.78
1:K:197:LEU:HD23	1:K:197:LEU:H	1.47	0.78
4:E:70:THR:HB	4:E:72:ARG:HG2	1.63	0.78
2:M:927:GLY:HA2	2:M:930:LYS:HD3	1.63	0.78
2:C:52:PHE:CE1	2:C:68:PHE:N	2.51	0.78
3:D:902:LEU:N	3:D:902:LEU:HD23	1.98	0.78
2:C:436:GLY:HA2	2:C:539:VAL:HA	1.65	0.78
3:N:1277:ILE:HD12	3:N:1301:LYS:N	1.99	0.78
3:N:1018:ASN:HB3	3:N:1021:TYR:CB	2.13	0.78
5:G:2:DT:H2'	5:G:3:DC:C5	2.18	0.78
3:N:1383:ASP:HB2	3:N:1416:ALA:HB3	1.65	0.78
3:N:705:ALA:CB	3:N:706:PRO:HD3	2.10	0.78
2:M:1019:GLN:NE2	2:M:1058:ASP:OD1	2.17	0.78
3:D:637:LEU:HD11	3:D:642:CYS:CA	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1277:ILE:CD1	3:N:1301:LYS:HB2	2.13	0.78
1:A:46:SER:HB3	2:C:856:GLU:OE2	1.84	0.78
3:N:833:GLU:O	3:N:834:THR:CG2	2.30	0.78
3:N:796:ARG:HH21	3:N:862:ASP:CG	1.86	0.78
2:C:758:ARG:HB3	2:C:788:THR:O	1.82	0.78
3:D:1205:TYR:CE2	3:D:1215:VAL:HG21	2.19	0.78
7:I:6:DT:H2"	7:I:7:DT:OP2	1.82	0.78
4:E:59:ASN:HB3	4:E:62:THR:OG1	1.83	0.78
2:M:808:ARG:HH21	2:M:820:ARG:NH2	1.81	0.78
2:M:140:ILE:O	2:M:418:LEU:HD23	1.84	0.78
2:M:1074:GLU:HG2	2:M:1075:ASP:H	1.48	0.78
2:C:48:PHE:O	2:C:52:PHE:CB	2.29	0.78
2:M:683:ASN:O	2:M:872:ASN:HB2	1.84	0.78
3:N:1240:THR:O	3:N:1241:PHE:HB2	1.82	0.78
3:N:1098:LEU:O	3:N:1102:THR:HG23	1.84	0.78
3:D:1112:CYS:N	3:D:1201:CYS:SG	2.57	0.78
2:M:129:ILE:HG22	2:M:130:ASN:N	1.97	0.78
3:N:163:TYR:HD1	3:N:165:LYS:H	1.31	0.78
3:N:171:LEU:CD1	3:N:195:VAL:CG2	2.61	0.78
2:M:889:HIS:HE1	2:M:988:VAL:CG2	1.96	0.78
2:C:367:LEU:HB3	2:C:371:LYS:HE3	1.65	0.78
3:N:1131:SER:CB	3:N:1133:ARG:HH21	1.96	0.78
3:N:1438:ALA:O	3:N:1443:THR:HG22	1.83	0.78
3:D:1195:GLN:CG	3:D:1196:THR:N	2.47	0.78
2:M:603:VAL:HB	2:M:647:GLN:H	1.49	0.78
2:M:1109:VAL:HG11	3:N:5:VAL:CG2	2.10	0.78
2:M:300:ASP:OD2	2:M:303:PHE:HB2	1.82	0.78
2:M:707:ARG:HD2	2:M:824:ARG:HD2	1.66	0.78
2:M:705:ILE:HG12	2:M:828:ALA:HB2	1.64	0.78
3:N:501:ALA:CB	3:N:1453:ALA:HB2	2.14	0.78
2:C:684:PHE:H	2:C:687:ALA:HB3	1.47	0.78
2:M:626:ARG:HG3	2:M:639:GLN:HE21	1.49	0.78
1:L:201:THR:HG21	1:L:205:VAL:O	1.84	0.78
3:N:1106:VAL:HG11	3:N:1474:ALA:CB	2.14	0.77
2:M:1095:LEU:CD2	3:N:603:LEU:HD13	2.15	0.77
3:N:646:LYS:CE	3:N:688:TRP:CZ2	2.66	0.77
2:C:487:THR:HG22	2:C:489:THR:HG23	1.65	0.77
2:M:1045:ALA:HB1	2:M:1048:THR:HB	1.66	0.77
7:Z:10:DG:H2"	7:Z:11:DG:OP2	1.85	0.77
3:D:1197:ARG:HA	3:D:1396:GLU:HG3	1.66	0.77
3:N:1425:THR:O	3:N:1429:LEU:HD13	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1018:ASN:HB3	3:D:1021:TYR:HB3	1.66	0.77
2:C:408:ARG:HG3	2:C:454:SER:HB3	1.65	0.77
3:D:498:VAL:O	3:D:501:ALA:HB3	1.84	0.77
3:N:704:ARG:HE	3:N:706:PRO:HD2	1.50	0.77
3:N:457:GLY:O	3:N:460:ALA:N	2.18	0.77
3:N:1381:VAL:HG12	3:N:1382:THR:N	1.99	0.77
3:D:136:ASP:HB3	3:D:137:PRO:CD	2.13	0.77
2:M:881:ASN:N	2:M:881:ASN:HD22	1.81	0.77
2:C:796:GLU:HB2	2:C:1004:LYS:NZ	1.99	0.77
1:L:212:ASN:O	1:L:215:VAL:HG22	1.84	0.77
3:N:1468:LEU:HD23	3:N:1468:LEU:O	1.83	0.77
1:A:43:ILE:HG22	1:A:47:SER:HB2	1.67	0.77
3:N:481:MET:HE3	3:N:1388:ARG:HB2	1.66	0.77
3:N:41:ARG:HD3	3:N:42:ASP:N	1.99	0.77
2:C:274:ARG:HG3	2:C:274:ARG:HH11	1.47	0.77
5:G:20:DC:H2''	5:G:21:DG:H5'	1.66	0.77
5:G:21:DG:H2''	5:G:22:DA:H5'	1.66	0.77
1:B:218:LEU:O	1:B:222:LEU:HG	1.85	0.77
3:N:646:LYS:CE	3:N:688:TRP:CE2	2.68	0.77
2:C:861:LEU:CD2	2:C:863:ASP:HB3	2.15	0.77
2:C:688:ILE:CD1	2:C:847:GLY:HA3	2.15	0.77
2:M:697:ARG:O	2:M:699:PHE:N	2.17	0.77
2:C:966:LEU:HD21	2:C:986:PRO:HG2	1.65	0.77
3:D:1045:MET:HE2	3:D:1076:GLY:HA3	1.63	0.77
1:B:34:VAL:HG22	1:B:181:VAL:HG21	1.65	0.77
3:N:1438:ALA:CA	3:N:1446:VAL:HG11	2.15	0.77
2:C:265:ARG:H	2:C:289:THR:HG21	1.47	0.77
2:M:5:ARG:HB3	2:M:902:ILE:HB	1.66	0.77
2:M:334:ARG:HB2	2:M:339:LEU:HD21	1.67	0.77
3:N:654:LYS:O	3:N:658:LEU:HG	1.84	0.77
3:D:639:LEU:HD12	3:D:640:HIS:H	1.49	0.77
3:N:792:ILE:O	3:N:878:GLY:HA3	1.85	0.77
5:G:28:DG:H8	5:G:28:DG:OP2	1.66	0.77
2:M:532:MET:HG2	2:M:533:ASP:N	1.98	0.77
2:C:693:GLU:HG2	2:C:697:ARG:HH21	1.48	0.77
2:C:559:LEU:HD23	2:C:563:ASN:OD1	1.84	0.77
2:C:1095:LEU:HB3	2:C:1097:LEU:HD23	1.65	0.77
2:C:266:ARG:CA	2:C:288:ARG:HD3	2.14	0.77
7:Z:13:DA:H2''	7:Z:14:DG:OP2	1.82	0.77
3:N:660:LYS:CD	3:N:694:VAL:HG22	2.14	0.77
2:C:185:LYS:CG	2:C:190:LYS:HG3	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:617:ASP:CG	2:M:619:ARG:HE	1.88	0.77
2:C:368:THR:HB	2:C:369:PRO:HD3	1.66	0.77
2:C:1042:ALA:CB	3:D:710:ARG:HB3	2.15	0.77
2:C:409:ARG:HB3	2:C:454:SER:HG	1.48	0.77
3:D:1440:PHE:O	3:D:1441:GLN:HB2	1.85	0.77
3:D:6:ARG:O	3:D:7:LYS:HG3	1.85	0.77
2:M:1082:PRO:O	2:M:1086:ARG:HG3	1.84	0.77
3:N:98:PRO:HG3	3:N:515:GLU:HB3	1.67	0.77
2:C:151:ASP:OD1	2:C:152:PRO:HD2	1.84	0.77
3:D:7:LYS:HG2	3:D:1458:GLU:HA	1.67	0.76
1:A:175:ARG:HD3	1:A:176:ARG:HG2	1.67	0.76
1:K:86:VAL:CG1	1:K:124:ASN:HB2	2.14	0.76
1:A:103:ALA:O	1:A:138:LEU:HB3	1.85	0.76
7:I:11:DG:H2'	7:I:12:DT:H72	1.65	0.76
3:N:618:LEU:CD1	3:N:1467:ILE:CG1	2.47	0.76
1:L:101:LEU:CD1	1:L:113:ASP:HB3	2.16	0.76
2:M:85:GLU:O	2:M:824:ARG:NH2	2.18	0.76
3:N:1426:LYS:HA	3:N:1429:LEU:HD22	1.68	0.76
2:C:1094:ALA:HA	3:D:518:PRO:HB2	1.65	0.76
3:N:167:GLU:OE1	3:N:198:ARG:NH2	2.18	0.76
1:K:112:ARG:HH11	1:K:112:ARG:HG2	1.50	0.76
3:D:897:TRP:HB2	3:D:900:ILE:CD1	2.07	0.76
2:C:1111:ILE:HG13	2:C:1112:PHE:H	1.49	0.76
3:N:131:LYS:HG3	3:N:568:ARG:HG2	1.68	0.76
2:C:904:PRO:HD2	2:C:908:GLY:HA2	1.67	0.76
2:C:1032:PHE:O	2:C:1036:GLU:HB2	1.84	0.76
3:N:1216:SER:HB3	4:O:15:SER:CA	2.15	0.76
3:D:705:ALA:CB	6:H:14:G:N2	2.15	0.76
3:N:1238:MET:O	3:N:1239:ARG:HG3	1.84	0.76
3:D:1109:GLU:CD	3:D:1202:GLN:H	1.88	0.76
3:D:1194:CYS:HB3	3:D:1373:ARG:HH12	1.48	0.76
3:N:171:LEU:CG	3:N:195:VAL:HG23	2.15	0.76
3:D:1154:GLU:O	3:N:562:ALA:N	2.17	0.76
2:C:328:LEU:HD22	2:C:433:THR:O	1.85	0.76
2:C:404:LEU:HD22	2:C:591:SER:HB3	1.68	0.76
2:C:304:LEU:CG	2:C:305:PRO:HD3	2.15	0.76
3:D:600:LEU:CD1	3:D:600:LEU:H	1.99	0.76
3:D:615:ARG:HH12	3:D:1096:ARG:CZ	1.99	0.76
1:K:181:VAL:N	2:M:937:ASP:OD1	2.18	0.76
3:D:1112:CYS:N	3:D:1201:CYS:CB	2.47	0.76
2:M:876:VAL:HG11	2:M:885:ILE:HD11	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:796:ARG:HG3	3:N:861:GLN:O	1.85	0.76
1:A:72:LYS:HE3	2:C:641:PRO:O	1.86	0.76
2:M:703:ILE:H	2:M:703:ILE:HD12	1.51	0.76
3:D:897:TRP:HA	3:D:900:ILE:HG13	1.62	0.76
3:D:1231:GLU:HB3	3:D:1232:PRO:HD3	1.66	0.76
2:C:939:ARG:HA	2:C:939:ARG:HE	1.49	0.76
1:A:188:GLN:HG3	1:A:189:ARG:H	1.51	0.76
2:C:48:PHE:O	2:C:52:PHE:N	2.19	0.76
2:M:1012:PRO:HD3	2:M:1026:GLN:HG2	1.68	0.76
3:N:702:LEU:O	3:N:713:ILE:HA	1.86	0.76
4:E:36:LYS:H	4:E:95:VAL:CG2	1.96	0.76
2:C:679:PHE:H	2:C:683:ASN:HD21	1.32	0.76
3:D:1380:GLU:HG2	3:D:1381:VAL:H	1.50	0.76
2:M:735:ARG:HH11	2:M:735:ARG:HG2	1.49	0.76
3:D:522:PRO:CA	3:D:525:ARG:HH11	1.99	0.75
2:M:966:LEU:HD21	2:M:986:PRO:HG2	1.66	0.75
2:C:943:VAL:HG23	2:C:985:GLY:H	1.51	0.75
3:N:102:ILE:HD12	3:N:579:ASP:HB3	1.68	0.75
2:M:684:PHE:CG	2:M:685:GLU:N	2.53	0.75
2:M:129:ILE:HD13	2:M:134:ARG:HB2	1.68	0.75
3:N:166:GLN:HA	3:N:198:ARG:HB3	1.69	0.75
2:M:677:MET:HB3	3:N:948:THR:HG21	1.68	0.75
3:D:847:ASP:O	3:D:851:LEU:HG	1.85	0.75
3:D:618:LEU:HD13	3:D:1439:SER:HB3	1.67	0.75
3:N:646:LYS:HD2	3:N:688:TRP:CZ2	2.22	0.75
2:C:739:GLU:HG3	2:C:742:VAL:CB	2.16	0.75
2:M:42:VAL:HA	2:M:46:ALA:HB2	1.68	0.75
2:M:52:PHE:HE1	2:M:66:LEU:HG	1.51	0.75
3:D:1446:VAL:HB	3:D:1447:LEU:HD13	1.67	0.75
3:D:614:PHE:HE2	3:D:1443:THR:HB	1.51	0.75
1:A:43:ILE:HG22	1:A:47:SER:CB	2.16	0.75
3:N:646:LYS:HD2	3:N:688:TRP:CD2	2.22	0.75
3:N:166:GLN:CB	3:N:198:ARG:HB3	2.16	0.75
2:M:946:ARG:CZ	2:M:984:GLU:HB2	2.17	0.75
3:D:900:ILE:HD12	3:D:902:LEU:HD22	1.68	0.75
5:G:8:DC:H2"	5:G:9:DC:OP2	1.85	0.75
3:N:1274:ILE:HG22	3:N:1301:LYS:NZ	2.01	0.75
3:D:1209:LEU:HD21	4:E:16:LYS:NZ	2.00	0.75
2:C:285:LEU:HD23	2:C:285:LEU:O	1.86	0.75
2:M:1054:THR:OG1	2:M:1055:LEU:N	2.19	0.75
3:D:1190:SER:O	3:D:1204:CYS:SG	2.44	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1481:VAL:HG12	4:E:21:VAL:HG21	1.68	0.75
3:D:704:ARG:HA	3:D:745:MET:CG	2.13	0.75
2:M:1021:LEU:HD22	6:Y:5:C:O2	1.86	0.75
2:C:928:LYS:HZ2	2:C:932:GLU:HG3	1.51	0.75
3:N:996:TRP:HA	3:N:999:THR:HG22	1.69	0.75
3:N:1211:MET:HG2	3:N:1212:ALA:H	1.52	0.75
3:N:696:HIS:ND1	3:N:697:GLY:N	2.35	0.75
3:D:696:HIS:CD2	4:E:59:ASN:CB	2.69	0.75
2:M:129:ILE:HG22	2:M:130:ASN:H	1.49	0.75
2:M:724:ARG:HG3	2:M:737:LEU:HD22	1.68	0.75
3:D:1042:ARG:HG2	3:D:1061:PHE:CE1	2.19	0.75
3:D:608:SER:CB	3:D:1442:ASN:O	2.35	0.75
3:N:1239:ARG:NH1	3:N:1239:ARG:HB2	2.02	0.75
2:M:265:ARG:HB3	2:M:267:TYR:CG	2.22	0.75
1:L:185:ARG:NH2	3:N:688:TRP:HB2	2.00	0.75
2:M:732:ALA:HA	2:M:735:ARG:CZ	2.17	0.75
7:I:11:DG:H2"	7:I:12:DT:OP2	1.86	0.74
2:C:976:ASP:CG	2:C:979:THR:HG22	2.06	0.74
3:N:1224:VAL:HA	3:N:1227:GLN:OE1	1.87	0.74
3:N:1270:ALA:O	3:N:1329:ALA:HB3	1.86	0.74
2:C:304:LEU:HG	2:C:305:PRO:HD3	1.68	0.74
2:M:889:HIS:O	2:M:892:LEU:HB3	1.87	0.74
1:L:52:ALA:HB1	1:L:170:VAL:H	1.52	0.74
2:C:326:ASP:HB3	2:C:431:HIS:HB2	1.69	0.74
3:D:85:VAL:HB	3:D:89:ARG:CZ	2.17	0.74
3:N:1465:ASN:OD1	3:N:1473:PRO:CG	2.34	0.74
4:O:5:GLY:HA3	4:O:8:LYS:HD2	1.69	0.74
3:N:1267:ARG:HG3	3:N:1271:LYS:HE2	1.68	0.74
2:M:580:MET:HB3	2:M:584:GLU:OE2	1.86	0.74
2:M:479:VAL:HG11	2:M:503:LEU:HD11	1.70	0.74
3:D:473:LEU:HG	3:D:476:GLU:OE2	1.87	0.74
2:M:57:GLU:O	2:M:62:GLY:HA3	1.87	0.74
2:C:52:PHE:CZ	2:C:68:PHE:CA	2.71	0.74
3:D:7:LYS:HA	3:D:1457:ASP:O	1.87	0.74
3:N:695:ILE:CD1	3:N:718:PRO:HB2	2.17	0.74
3:N:1369:GLU:O	3:N:1372:VAL:HG12	1.87	0.74
2:C:759:THR:HB	2:C:785:VAL:HG22	1.69	0.74
2:M:893:ALA:HB1	2:M:897:LEU:HD12	1.69	0.74
1:L:62:LEU:HD12	1:L:63:HIS:H	1.52	0.74
3:N:36:THR:C	3:N:38:LYS:H	1.89	0.74
2:C:1032:PHE:CE2	2:C:1037:VAL:HA	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:165:LEU:HG	2:C:166:PRO:CA	2.15	0.74
3:N:653:PHE:HB3	3:N:656:PHE:HB2	1.67	0.74
3:N:902:LEU:HD23	3:N:902:LEU:H	1.52	0.74
2:M:415:PRO:HD2	2:M:418:LEU:HD13	1.70	0.74
3:N:1262:LEU:HD23	3:N:1352:ILE:HG12	1.70	0.74
3:N:553:ARG:O	3:N:557:LEU:HG	1.86	0.74
3:N:182:GLY:HA2	3:N:203:ALA:O	1.87	0.74
2:C:930:LYS:HD2	2:C:960:GLU:OE1	1.88	0.74
3:D:899:LEU:CD2	3:D:917:GLN:CG	2.64	0.74
3:N:87:ARG:HD3	3:N:524:LEU:HD11	1.68	0.74
1:L:124:ASN:ND2	1:L:127:LEU:HB2	2.00	0.74
2:M:1054:THR:OG1	2:M:1055:LEU:HG	1.87	0.74
3:N:607:LEU:HA	3:N:613:ARG:CB	2.18	0.74
2:M:328:LEU:HD11	2:M:434:HIS:CE1	2.22	0.74
2:C:759:THR:HB	2:C:785:VAL:CG2	2.17	0.74
2:C:911:GLU:HB3	2:C:912:PRO:HD3	1.70	0.74
1:A:87:VAL:HG21	1:A:144:VAL:HG11	1.70	0.74
2:M:1046:ALA:HB2	3:N:1476:THR:HB	1.69	0.74
3:D:907:GLU:O	3:D:911:LEU:HD13	1.88	0.74
2:M:889:HIS:CE1	2:M:988:VAL:HG21	2.16	0.74
4:O:37:ASN:HD22	4:O:37:ASN:N	1.85	0.74
2:C:939:ARG:HD3	2:C:982:PRO:HD3	1.69	0.74
3:D:785:ILE:HD12	3:D:785:ILE:H	1.51	0.74
2:M:110:GLU:HG3	2:M:369:PRO:HG3	1.68	0.74
3:D:641:GLN:HG2	3:D:717:GLN:HE21	1.51	0.74
3:N:675:ARG:HA	3:N:678:GLU:CD	2.08	0.74
2:C:537:LYS:HD2	2:C:905:ILE:HD13	1.69	0.74
1:A:94:LEU:HD21	1:A:119:ASP:HB2	1.67	0.74
3:D:1166:LEU:HD23	3:D:1166:LEU:H	1.53	0.74
2:C:1090:LYS:HZ1	3:D:21:TRP:HB3	1.53	0.74
5:G:11:DC:H2"	5:G:12:DA:OP2	1.86	0.74
2:M:1060:ILE:HG23	2:M:1061:GLU:H	1.52	0.74
3:N:925:GLU:OE1	4:O:7:ASP:OD2	2.06	0.74
3:N:171:LEU:HD11	3:N:195:VAL:CG2	2.18	0.74
3:D:764:LEU:CD2	3:D:767:HIS:CE1	2.69	0.74
2:C:292:ARG:CG	2:C:298:PHE:HA	2.15	0.74
1:K:188:GLN:HG3	1:K:189:ARG:H	1.52	0.74
2:M:541:SER:O	2:M:545:ASN:ND2	2.21	0.74
2:C:492:ASP:OD2	2:C:518:LYS:HB3	1.88	0.74
2:C:12:VAL:HB	2:C:472:ARG:HH11	1.53	0.74
3:N:1461:GLY:O	3:N:1465:ASN:HB2	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:ILE:CG2	1:A:47:SER:CB	2.66	0.74
3:D:531:ASP:OD1	6:H:4:G:H4'	1.88	0.74
2:M:1114:GLY:H	2:M:1115:LEU:HD12	1.53	0.74
3:N:950:GLY:O	3:N:953:ASP:HB2	1.87	0.74
1:B:26:GLU:HB2	1:B:27:PRO:HA	1.68	0.74
1:B:52:ALA:HB1	1:B:170:VAL:H	1.53	0.74
2:C:423:ALA:HB1	7:I:1:DG:C5'	2.15	0.73
3:D:743:ASP:CG	6:H:14:G:O2'	2.26	0.73
2:M:684:PHE:N	2:M:687:ALA:HB3	2.02	0.73
1:A:222:LEU:HD23	1:B:219:ARG:CB	2.18	0.73
3:N:97:THR:CG2	3:N:459:GLU:HB2	2.17	0.73
2:M:328:LEU:HD11	2:M:434:HIS:ND1	2.03	0.73
3:D:1412:LYS:HB2	2:M:376:ARG:NH2	2.03	0.73
3:D:600:LEU:HD12	3:D:600:LEU:N	2.02	0.73
2:M:987:ILE:CG2	3:N:948:THR:HG21	2.17	0.73
3:D:864:VAL:HG12	3:D:865:THR:N	2.04	0.73
3:D:102:ILE:HB	3:D:579:ASP:OD1	1.88	0.73
3:N:149:LYS:HE3	3:N:150:ARG:H	1.52	0.73
3:N:1152:GLU:OE2	3:N:1154:GLU:HG3	1.88	0.73
1:B:30:ARG:HH11	1:B:30:ARG:HG2	1.52	0.73
3:D:897:TRP:O	3:D:900:ILE:HG13	1.88	0.73
3:D:11:ALA:HB1	3:D:507:ASN:OD1	1.89	0.73
3:D:6:ARG:HD2	3:D:1470:ARG:HH12	1.51	0.73
3:N:1216:SER:CB	4:O:15:SER:OG	2.35	0.73
3:N:1274:ILE:CG2	3:N:1301:LYS:NZ	2.51	0.73
3:N:1294:VAL:HG12	3:N:1319:VAL:HG23	1.70	0.73
2:M:157:ARG:HD3	2:M:314:THR:HG21	1.71	0.73
3:D:829:VAL:O	3:D:835:SER:HB3	1.88	0.73
1:K:56:VAL:HG22	1:K:142:VAL:HG12	1.70	0.73
3:D:996:TRP:HA	3:D:999:THR:HG22	1.69	0.73
2:C:588:VAL:HG21	2:C:664:GLY:O	1.89	0.73
2:C:345:ARG:HA	2:C:348:LEU:HD22	1.67	0.73
2:C:52:PHE:HB3	2:C:53:PRO:HD3	1.69	0.73
3:D:729:HIS:O	3:D:732:VAL:HG22	1.88	0.73
4:O:25:LYS:O	4:O:29:GLN:HG3	1.89	0.73
7:Z:9:DT:H2"	7:Z:10:DG:OP2	1.88	0.73
2:C:685:GLU:HG2	3:D:739:ASP:HB2	1.69	0.73
3:D:1225:ALA:HA	3:D:1367:HIS:ND1	2.02	0.73
3:D:1465:ASN:HD21	3:D:1470:ARG:HB3	1.52	0.73
3:N:699:VAL:HG21	3:N:760:ARG:HB3	1.70	0.73
3:N:1200:VAL:CG1	3:N:1204:CYS:HB2	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:87:ARG:CB	3:N:523:ASP:HB2	2.19	0.73
3:D:1216:SER:HB3	4:E:16:LYS:N	2.01	0.73
3:D:65:ARG:H	3:D:68:PHE:HE1	1.34	0.73
2:C:139:GLN:O	2:C:333:ILE:HA	1.89	0.73
2:M:603:VAL:HB	2:M:647:GLN:N	2.03	0.73
1:L:56:VAL:HG13	1:L:142:VAL:HG12	1.68	0.73
2:C:1097:LEU:CD2	2:C:1097:LEU:H	1.98	0.73
3:N:705:ALA:HB3	3:N:706:PRO:CD	2.14	0.73
2:M:1095:LEU:HD21	3:N:603:LEU:CD1	2.17	0.73
2:M:861:LEU:HD23	2:M:862:PRO:N	2.03	0.73
3:N:478:LEU:CD2	3:N:1388:ARG:HD3	2.19	0.73
3:N:520:LEU:HD11	3:N:524:LEU:HD23	1.68	0.73
3:D:702:LEU:O	3:D:713:ILE:HA	1.89	0.73
2:C:749:VAL:HG22	2:C:798:GLY:O	1.89	0.73
2:C:18:LEU:CD1	2:C:18:LEU:H	2.00	0.73
2:C:16:PRO:O	2:C:18:LEU:HD12	1.89	0.73
3:N:639:LEU:HA	3:N:729:HIS:CD2	2.24	0.73
2:M:460:ARG:HG2	2:M:485:TYR:CE2	2.23	0.73
1:A:42:ARG:HB2	1:B:35:THR:HG23	1.69	0.73
2:C:50:GLU:HB2	2:C:266:ARG:HH11	1.54	0.73
2:M:113:VAL:HG11	2:M:373:VAL:HG11	1.70	0.73
2:M:762:LYS:HE3	2:M:786:LYS:HE2	1.68	0.73
3:D:1034:GLN:O	3:D:1038:LEU:CB	2.34	0.73
2:C:1035:MET:SD	5:G:20:DC:H5'	2.28	0.73
2:M:265:ARG:H	2:M:289:THR:HG21	0.64	0.73
3:N:1294:VAL:CG2	3:N:1301:LYS:HB3	2.18	0.73
2:M:674:VAL:HG23	2:M:869:VAL:HG13	1.69	0.73
3:D:1103:HIS:CG	3:D:1104:GLU:N	2.57	0.73
3:D:1438:ALA:HA	3:D:1446:VAL:HG11	1.68	0.73
3:D:739:ASP:N	6:H:15:C:H5"	2.04	0.73
3:D:8:VAL:HG21	3:D:1435:LEU:HD21	1.69	0.73
3:N:703:ASN:O	3:N:745:MET:HB3	1.89	0.73
3:N:1111:ASP:HA	3:N:1201:CYS:HB2	1.69	0.73
4:E:64:ALA:O	4:E:68:LEU:HD22	1.88	0.73
3:N:481:MET:SD	3:N:493:ARG:HB2	2.28	0.73
2:C:673:LEU:HB3	2:C:868:ASP:OD1	1.88	0.73
3:N:87:ARG:HB2	3:N:523:ASP:HB2	1.71	0.73
2:M:1016:ILE:HG12	2:M:1017:THR:N	2.03	0.73
2:M:922:PHE:HB3	2:M:964:LYS:NZ	2.04	0.73
3:N:958:GLU:OE2	3:N:961:LYS:HD3	1.89	0.73
2:C:352:ALA:O	2:C:355:VAL:HG12	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1107:VAL:HB	3:N:1218:GLY:H	1.53	0.73
2:M:328:LEU:CD2	2:M:437:ARG:HD3	2.18	0.73
3:D:1342:GLU:HA	3:D:1345:GLU:OE1	1.89	0.73
1:L:179:PHE:HB2	1:L:195:LEU:HD11	1.70	0.73
3:D:128:TYR:HE2	3:D:458:ALA:HA	1.52	0.73
3:D:615:ARG:HH22	3:D:1096:ARG:HD2	1.51	0.73
2:M:587:VAL:HG11	2:M:666:LEU:HD22	1.68	0.73
1:B:102:LYS:HE2	1:B:139:ASN:HB2	1.70	0.73
7:I:16:DG:H2"	7:I:17:DA:OP2	1.89	0.73
2:C:630:ARG:HH21	2:C:707:ARG:H	1.37	0.72
2:C:692:GLU:O	2:C:696:LYS:HG3	1.89	0.72
2:M:90:TYR:HE1	2:M:120:LEU:HD12	1.54	0.72
2:C:688:ILE:HD13	2:C:847:GLY:HA3	1.70	0.72
2:M:139:GLN:O	2:M:333:ILE:HA	1.89	0.72
2:C:1103:ASP:CG	2:C:1104:GLU:H	1.92	0.72
1:B:58:ILE:HD13	1:B:140:MET:HB3	1.70	0.72
1:B:28:LEU:HB2	1:B:193:ASP:HB2	1.69	0.72
2:C:460:ARG:HH22	2:C:468:ARG:NH1	1.87	0.72
3:D:1447:LEU:CD1	3:D:1447:LEU:N	2.52	0.72
1:A:43:ILE:HD13	1:B:32:PHE:HE2	1.53	0.72
3:N:1194:CYS:SG	3:N:1200:VAL:HG13	2.29	0.72
3:N:1484:THR:HA	4:O:76:GLY:O	1.88	0.72
6:H:5:C:C6	6:H:5:C:O5'	2.42	0.72
3:N:899:LEU:HD23	3:N:921:ARG:HG3	1.72	0.72
2:M:626:ARG:HG3	2:M:639:GLN:NE2	2.04	0.72
1:K:86:VAL:HG12	1:K:124:ASN:HB2	1.71	0.72
3:N:23:TYR:O	3:N:49:ILE:HG23	1.89	0.72
4:E:54:LEU:HD21	4:E:63:TRP:HE1	1.53	0.72
2:C:64:LEU:HD12	2:C:100:LEU:HD11	1.71	0.72
2:M:106:GLY:O	2:M:107:LEU:HD23	1.89	0.72
2:C:281:LEU:HD12	2:C:309:TYR:CB	2.19	0.72
2:C:333:ILE:O	2:C:465:GLY:HA3	1.90	0.72
1:A:102:LYS:HB3	1:A:139:ASN:CG	2.09	0.72
1:A:48:ILE:O	1:A:148:VAL:HG13	1.87	0.72
3:N:434:ARG:HB3	3:N:434:ARG:HH11	1.54	0.72
5:G:6:DT:H4'	5:G:6:DT:OP1	1.87	0.72
3:D:486:ARG:HB2	5:G:8:DC:OP1	1.88	0.72
2:M:393:GLN:HG2	6:Y:10:G:H4'	1.72	0.72
3:N:104:PHE:HD2	3:N:1448:THR:HG23	1.53	0.72
3:N:1097:LYS:O	3:N:1101:VAL:HG22	1.89	0.72
5:X:3:DC:H2"	5:X:4:DA:OP2	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:176:ARG:HH11	2:C:865:THR:HB	1.54	0.72
2:C:143:SER:HB2	2:C:276:LYS:HE2	1.70	0.72
2:C:678:PRO:HG3	2:C:873:PRO:HD2	1.71	0.72
3:D:714:GLN:HE21	3:D:765:SER:CB	2.02	0.72
2:M:332:ARG:C	2:M:333:ILE:HD12	2.09	0.72
2:M:627:ARG:HG3	2:M:628:PHE:H	1.52	0.72
3:D:1465:ASN:ND2	3:D:1470:ARG:HB3	2.04	0.72
2:M:684:PHE:H	2:M:687:ALA:HB3	1.53	0.72
3:N:1023:MET:O	3:N:1028:ALA:HB3	1.90	0.72
2:C:292:ARG:HB2	2:C:299:LYS:HG2	1.71	0.72
2:M:630:ARG:HD2	2:M:634:GLY:HA2	1.71	0.72
2:M:304:LEU:CD2	2:M:305:PRO:HD3	2.19	0.72
2:C:479:VAL:HG22	2:C:506:ASN:HA	1.72	0.72
3:D:1388:ARG:HD2	3:D:1388:ARG:N	2.05	0.72
3:D:900:ILE:HD12	3:D:902:LEU:HD21	1.70	0.72
2:C:395:LYS:NZ	2:C:407:LYS:NZ	2.38	0.72
7:I:11:DG:C8	7:I:12:DT:H72	2.24	0.72
3:N:776:GLU:OE1	3:N:912:LYS:HE2	1.89	0.72
2:M:678:PRO:HG3	2:M:873:PRO:HD2	1.70	0.72
2:M:694:LEU:HD11	2:M:868:ASP:HB3	1.70	0.72
2:M:720:GLU:HG2	2:M:760:SER:CB	2.19	0.72
3:D:645:PRO:HG2	3:D:724:GLN:O	1.90	0.72
2:C:274:ARG:HG3	2:C:274:ARG:NH1	2.02	0.72
1:A:5:LYS:O	1:A:8:ALA:HB2	1.90	0.72
3:D:1031:ASN:HB3	3:D:1034:GLN:HB2	1.72	0.72
2:C:444:PRO:HB3	6:H:12:U:OP1	1.90	0.72
7:I:2:DT:H2"	7:I:3:DA:OP2	1.90	0.72
2:M:687:ALA:O	2:M:688:ILE:CD1	2.37	0.72
3:N:477:LEU:HD12	3:N:496:LEU:CD1	2.14	0.72
3:N:806:PHE:CE1	3:N:813:LEU:HB3	2.25	0.72
3:N:134:VAL:HG12	3:N:152:LEU:HB3	1.72	0.72
5:X:16:DT:H2"	5:X:17:DA:OP2	1.89	0.72
2:C:89:THR:CA	2:C:129:ILE:O	2.36	0.72
2:C:183:SER:OG	2:C:190:LYS:HG2	1.89	0.72
3:D:974:ILE:O	3:D:977:ALA:HB3	1.89	0.72
2:C:344:PHE:O	2:C:348:LEU:HD13	1.88	0.72
3:D:1258:ARG:HH12	3:D:1329:ALA:CB	1.98	0.72
3:D:613:ARG:O	3:D:616:GLN:HB3	1.89	0.72
1:B:221:HIS:HA	1:B:224:TYR:CD2	2.25	0.72
3:N:502:PHE:CE1	3:N:509:PRO:HB3	2.25	0.72
3:N:1330:ILE:HD13	3:N:1347:TYR:CE1	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1040:LEU:HG	2:C:1045:ALA:HB3	1.70	0.72
3:N:917:GLN:HA	3:N:920:LEU:HD12	1.70	0.72
4:O:26:ARG:O	4:O:30:LEU:HD13	1.89	0.72
2:M:274:ARG:HD3	2:M:274:ARG:O	1.89	0.72
3:D:810:GLU:O	3:D:813:LEU:HG	1.90	0.72
3:N:1197:ARG:HA	3:N:1396:GLU:HG3	1.70	0.72
1:L:14:ARG:HB2	1:L:22:GLU:HB2	1.71	0.72
3:D:95:LEU:HD23	3:D:96:ALA:H	1.54	0.72
2:M:260:LEU:HD12	2:M:261:ILE:N	2.05	0.72
3:N:513:ILE:HD12	3:N:513:ILE:O	1.90	0.72
2:C:86:LYS:HB3	2:C:813:VAL:HG23	1.70	0.72
3:N:1277:ILE:HD12	3:N:1301:LYS:CB	2.19	0.72
2:C:683:ASN:HA	2:C:687:ALA:C	2.10	0.72
2:M:887:GLU:OE1	2:M:992:MET:HG3	1.90	0.72
1:L:101:LEU:HD11	1:L:113:ASP:HB3	1.72	0.72
2:C:397:GLU:OE2	2:C:632:ASN:HB2	1.90	0.72
3:D:708:LEU:HB3	3:D:1231:GLU:HB2	1.72	0.72
3:D:1447:LEU:H	3:D:1447:LEU:HD13	1.55	0.72
2:C:979:THR:HG23	2:C:981:GLU:H	1.53	0.72
1:L:78:ILE:O	1:L:82:LEU:HG	1.89	0.72
2:M:580:MET:SD	2:M:584:GLU:HG3	2.30	0.72
3:D:1380:GLU:HG2	3:D:1381:VAL:N	2.05	0.72
2:C:1003:ASP:CG	2:C:1004:LYS:N	2.43	0.72
3:N:1322:GLY:O	3:N:1323:GLN:HB2	1.89	0.72
2:C:44:ILE:O	2:C:48:PHE:CD2	2.43	0.71
3:D:1042:ARG:CZ	3:D:1073:SER:HB2	2.19	0.71
2:M:1013:TYR:CE1	2:M:1020:PRO:HG3	2.24	0.71
2:M:1002:GLU:HA	5:X:23:DG:H5"	1.72	0.71
3:D:1033:GLN:CB	3:D:1037:GLN:OE1	2.38	0.71
3:N:83:SER:O	3:N:86:ARG:HB3	1.90	0.71
1:L:7:LYS:NZ	1:L:186:LEU:HD13	2.04	0.71
3:D:153:LEU:HD13	3:D:158:TYR:HB2	1.70	0.71
2:C:252:LYS:HD3	2:C:296:GLY:HA2	1.71	0.71
2:M:642:ARG:HG3	2:M:657:ASP:OD2	1.90	0.71
2:C:1095:LEU:HG	3:D:603:LEU:HD13	1.71	0.71
3:D:1265:ALA:O	3:D:1266:ARG:HG3	1.89	0.71
3:D:744:GLN:OE1	5:G:21:DG:N2	2.23	0.71
3:D:554:LEU:HD11	3:D:558:LEU:HD21	1.72	0.71
3:N:1258:ARG:O	3:N:1262:LEU:HD13	1.89	0.71
2:C:110:GLU:HG3	2:C:369:PRO:HG3	1.72	0.71
2:C:541:SER:O	2:C:545:ASN:ND2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:I:1:DG:H3'	7:I:1:DG:OP3	1.90	0.71
3:N:638:LYS:HD3	3:N:932:ASP:CG	2.11	0.71
3:N:1129:THR:CB	3:N:1320:GLU:CG	2.62	0.71
4:E:68:LEU:HD12	4:E:73:LEU:HD13	1.71	0.71
3:N:525:ARG:HB3	3:N:540:LEU:HD12	1.71	0.71
2:M:754:ILE:CD1	2:M:791:ARG:HG2	2.17	0.71
2:C:410:ILE:HG22	2:C:453:THR:O	1.90	0.71
1:A:57:TYR:CE2	1:A:161:ARG:HD2	2.26	0.71
3:N:141:ILE:HD11	3:N:448:GLU:HG2	1.72	0.71
2:M:598:GLU:O	2:M:651:LYS:HG3	1.90	0.71
3:N:645:PRO:HA	3:N:721:VAL:O	1.90	0.71
3:D:524:LEU:N	3:D:524:LEU:HD12	2.05	0.71
5:G:21:DG:H2''	5:G:22:DA:O5'	1.88	0.71
3:N:1462:LEU:CD2	3:N:1473:PRO:HD2	2.20	0.71
3:N:809:PRO:HB2	3:N:812:ALA:HB2	1.73	0.71
2:C:861:LEU:HD22	2:C:863:ASP:HB3	1.73	0.71
2:M:90:TYR:O	2:M:119:PRO:HA	1.89	0.71
2:M:720:GLU:HG2	2:M:760:SER:HB3	1.71	0.71
6:H:8:G:H2'	6:H:9:C:C6	2.25	0.71
2:M:284:ARG:HG2	2:M:301:GLU:OE1	1.90	0.71
2:C:1037:VAL:HG12	2:C:1041:GLU:OE2	1.89	0.71
3:N:1209:LEU:HD12	3:N:1216:SER:H	1.56	0.71
3:N:696:HIS:CG	3:N:697:GLY:H	2.07	0.71
2:M:276:LYS:HA	2:M:280:LYS:HD2	1.71	0.71
2:M:570:PRO:HD2	2:M:635:THR:HG21	1.72	0.71
2:M:536:PRO:HB3	2:M:906:PHE:HD1	1.54	0.71
3:D:799:LYS:O	3:D:829:VAL:HG22	1.90	0.71
2:M:334:ARG:O	2:M:339:LEU:HD11	1.91	0.71
2:M:122:THR:HB	2:M:124:ASP:OD1	1.91	0.71
2:C:122:THR:HB	2:C:124:ASP:OD1	1.91	0.71
5:G:19:DG:C2'	5:G:20:DC:O5'	2.38	0.71
3:N:1109:GLU:HG2	3:N:1201:CYS:CA	2.19	0.71
3:N:133:ILE:HG23	3:N:456:MET:HB3	1.71	0.71
3:N:107:ASP:OD1	3:N:1445:HIS:HB2	1.90	0.71
3:D:122:GLU:O	3:D:126:VAL:HG23	1.91	0.71
2:C:415:PRO:HD2	2:C:418:LEU:HD13	1.72	0.71
1:A:86:VAL:CG2	1:A:204:SER:HB2	2.21	0.71
1:A:86:VAL:HG12	1:A:124:ASN:HB2	1.71	0.71
2:M:21:ILE:HD12	2:M:21:ILE:H	1.56	0.71
3:D:1095:THR:HA	3:D:1098:LEU:HD13	1.73	0.71
3:D:1256:LEU:HG	3:D:1260:ILE:CD1	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Y:8:G:H2'	6:Y:9:C:O4'	1.91	0.71
3:N:646:LYS:CG	3:N:688:TRP:CH2	2.73	0.71
2:C:88:LEU:HD13	2:C:89:THR:H	1.56	0.71
2:C:409:ARG:HH12	2:C:444:PRO:HG3	1.55	0.71
2:M:1046:ALA:HA	3:N:1472:ILE:HD11	1.73	0.71
3:D:1114:THR:O	3:D:1114:THR:HG23	1.90	0.71
2:C:687:ALA:C	2:C:688:ILE:HD12	2.10	0.71
2:C:674:VAL:CG2	2:C:869:VAL:HG13	2.20	0.71
2:M:511:GLU:O	2:M:526:PRO:HD3	1.90	0.71
2:M:578:VAL:HG13	2:M:671:ASN:ND2	2.05	0.71
3:D:1340:GLY:O	3:D:1344:VAL:HG23	1.90	0.71
3:D:30:GLU:HB3	3:D:40:GLU:HG2	1.73	0.71
3:N:847:ASP:O	3:N:851:LEU:HG	1.90	0.71
2:M:352:ALA:O	2:M:355:VAL:HG12	1.90	0.71
3:D:1177:ALA:O	3:D:1180:ALA:HB3	1.91	0.71
3:N:840:LYS:HD3	3:N:841:TYR:OH	1.90	0.71
3:D:586:ARG:NH2	3:D:1442:ASN:OD1	2.24	0.71
3:N:136:ASP:HB3	3:N:137:PRO:CD	2.21	0.71
2:C:144:PRO:HG2	2:C:265:ARG:NH1	2.05	0.71
3:N:57:GLU:HG2	3:N:58:CYS:N	2.05	0.71
2:C:227:PHE:HD2	2:C:237:ARG:NE	1.88	0.71
2:M:236:ILE:HA	2:M:239:PHE:HD2	1.56	0.71
2:C:431:HIS:CD2	2:C:433:THR:H	2.08	0.70
3:D:1434:TRP:CZ3	3:D:1457:ASP:HB2	2.25	0.70
3:D:17:LYS:HG2	3:D:21:TRP:NE1	2.05	0.70
3:D:487:ALA:HB2	5:G:7:DA:C2'	2.21	0.70
3:D:633:VAL:HG22	3:D:635:PRO:HD3	1.73	0.70
3:N:478:LEU:HD22	3:N:1388:ARG:HD3	1.73	0.70
2:M:754:ILE:HD12	2:M:789:SER:HB2	1.72	0.70
2:M:677:MET:CB	2:M:987:ILE:HD13	2.21	0.70
2:C:244:PRO:HD2	2:C:245:GLY:H	1.56	0.70
3:N:758:GLU:HB3	4:O:20:THR:CG2	2.21	0.70
5:X:23:DG:H2'	5:X:24:DC:C6	2.26	0.70
1:A:35:THR:O	1:A:39:PRO:HG2	1.90	0.70
2:M:1095:LEU:O	2:M:1096:ALA:C	2.30	0.70
2:M:455:LEU:CD1	2:M:456:ALA:O	2.37	0.70
3:N:653:PHE:CZ	3:N:749:VAL:CG1	2.73	0.70
2:M:753:ASP:HB2	2:M:792:VAL:HG21	1.72	0.70
2:M:676:ILE:CG2	2:M:988:VAL:HG22	2.21	0.70
2:M:140:ILE:HD13	2:M:331:ARG:HH21	1.56	0.70
2:C:190:LYS:HD2	2:C:190:LYS:H	1.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:72:LYS:O	2:M:608:GLY:HA2	1.91	0.70
2:M:496:ILE:HA	2:M:531:PHE:O	1.92	0.70
3:N:101:HIS:ND1	3:N:103:TRP:HB2	2.06	0.70
2:M:1040:LEU:CD2	2:M:1049:LEU:HD13	2.21	0.70
3:N:783:ARG:NH2	3:N:1029:ARG:HD2	2.06	0.70
3:N:1366:LYS:HA	3:N:1369:GLU:OE1	1.91	0.70
3:N:520:LEU:HD21	3:N:524:LEU:HB3	1.73	0.70
2:M:676:ILE:HG21	2:M:988:VAL:HG22	1.72	0.70
1:A:18:ARG:O	1:A:201:THR:OG1	2.09	0.70
3:N:1109:GLU:CD	3:N:1202:GLN:H	1.95	0.70
3:N:650:LEU:O	3:N:654:LYS:HB2	1.90	0.70
2:C:1008:ARG:HD2	2:C:1028:GLY:H	1.56	0.70
2:M:903:SER:OG	2:M:908:GLY:HA3	1.91	0.70
3:D:1380:GLU:HB2	3:D:1420:LEU:HD11	1.73	0.70
3:D:1256:LEU:CD2	3:D:1260:ILE:HD11	2.21	0.70
2:C:273:GLY:HA2	2:C:276:LYS:HD2	1.72	0.70
2:C:1007:ALA:HB1	3:D:652:LEU:CD1	2.21	0.70
3:N:1197:ARG:HB3	3:N:1396:GLU:CD	2.11	0.70
3:N:1084:THR:HG22	3:N:1087:ARG:HH22	1.57	0.70
3:D:528:VAL:HG12	3:D:529:GLN:N	2.06	0.70
2:M:399:ASN:OD1	2:M:401:LEU:HB3	1.92	0.70
3:D:1033:GLN:C	3:D:1037:GLN:HB2	2.09	0.70
2:M:605:LYS:HD3	2:M:610:ARG:NH1	2.07	0.70
3:D:843:PHE:HB2	3:D:866:VAL:HG22	1.73	0.70
2:C:336:VAL:HA	2:C:339:LEU:CD1	2.12	0.70
4:E:27:ALA:O	4:E:31:LEU:HG	1.90	0.70
3:N:1093:TYR:CZ	5:X:18:DC:H5"	2.27	0.70
2:C:88:LEU:O	2:C:129:ILE:O	2.08	0.70
2:M:52:PHE:HB3	2:M:53:PRO:HD3	1.74	0.70
3:D:72:VAL:HG23	3:D:78:VAL:N	2.06	0.70
2:C:347:GLY:HA3	2:C:378:LEU:HD12	1.73	0.70
2:M:959:PRO:HA	2:M:962:GLN:HG3	1.73	0.70
6:Y:10:G:H2'	6:Y:11:C:C6	2.26	0.70
3:N:1379:VAL:HG12	3:N:1419:PRO:HA	1.72	0.70
3:D:1109:GLU:CB	3:D:1201:CYS:HA	2.22	0.70
2:M:90:TYR:CE1	2:M:120:LEU:HD12	2.26	0.70
3:N:1292:VAL:CG2	3:N:1311:LEU:HD13	2.21	0.70
1:A:63:HIS:CB	2:C:746:GLY:HA2	2.21	0.70
4:E:13:VAL:HG21	4:E:19:LEU:HD13	1.74	0.70
3:D:103:TRP:CH2	3:D:1444:THR:HA	2.27	0.70
3:D:103:TRP:CZ3	3:D:1444:THR:HA	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1100:ASP:HA	3:D:1463:LYS:NZ	2.06	0.70
2:M:861:LEU:HD21	2:M:925:TYR:CE2	2.27	0.70
3:D:1003:VAL:HG11	3:D:1036:ARG:HH11	1.56	0.70
4:O:54:LEU:HD23	4:O:58:PRO:CD	2.19	0.70
2:C:21:ILE:HD12	2:C:21:ILE:H	1.57	0.70
3:D:1046:GLN:HG2	3:D:1052:THR:HG22	1.74	0.70
2:C:332:ARG:NH2	2:C:464:LEU:HG	2.07	0.70
3:N:206:ARG:HG2	3:N:394:LEU:HD22	1.72	0.70
2:C:1092:LEU:HD13	2:C:1099:VAL:HG21	1.74	0.70
5:G:24:DC:OP2	5:G:24:DC:H6	1.74	0.70
2:M:290:LEU:HG	2:M:290:LEU:O	1.92	0.70
4:E:27:ALA:HA	4:E:30:LEU:HD13	1.74	0.70
2:M:328:LEU:HB2	2:M:488:ALA:CB	2.21	0.70
1:L:137:ARG:HH21	1:L:139:ASN:HB3	1.56	0.70
3:N:56:TYR:OH	3:N:69:GLU:HB2	1.91	0.70
3:D:615:ARG:HH22	3:D:1096:ARG:CD	2.04	0.69
3:N:480:GLU:OE1	3:N:488:ARG:HG3	1.91	0.69
2:M:374:ASN:O	2:M:377:PRO:HD2	1.92	0.69
1:L:100:LEU:HB2	1:L:115:LEU:HD21	1.73	0.69
3:D:809:PRO:HB2	3:D:812:ALA:HB2	1.74	0.69
2:M:685:GLU:OE2	3:N:783:ARG:HD2	1.92	0.69
2:M:1101:THR:HG21	2:M:1111:ILE:HG23	1.71	0.69
3:N:809:PRO:HB2	3:N:812:ALA:CB	2.22	0.69
3:D:30:GLU:HB3	3:D:40:GLU:CG	2.22	0.69
2:C:12:VAL:HB	2:C:472:ARG:NH1	2.07	0.69
2:M:1006:HIS:CE1	2:M:1027:PHE:HA	2.26	0.69
3:D:9:ARG:NH1	3:D:11:ALA:HB2	2.07	0.69
5:X:27:DC:P	5:X:27:DC:H3'	2.33	0.69
3:N:1129:THR:CG2	3:N:1130:ARG:N	2.49	0.69
2:C:66:LEU:HD13	2:C:100:LEU:HB2	1.74	0.69
2:C:759:THR:HA	2:C:786:LYS:O	1.92	0.69
2:C:173:ASP:OD1	2:C:185:LYS:HB2	1.92	0.69
3:D:1146:GLY:HA3	3:D:1207:TYR:HB2	1.74	0.69
2:C:328:LEU:HD21	2:C:434:HIS:HA	1.74	0.69
3:D:525:ARG:HB2	3:D:538:SER:HB3	1.73	0.69
1:A:65:PHE:CE1	2:C:799:ILE:HB	2.27	0.69
2:M:584:GLU:HB2	2:M:666:LEU:H	1.56	0.69
3:N:465:LEU:CD2	3:N:510:GLU:HA	2.22	0.69
1:B:211:LEU:O	1:B:215:VAL:HG13	1.92	0.69
3:D:72:VAL:HG23	3:D:78:VAL:H	1.56	0.69
3:N:1353:GLN:O	3:N:1357:ARG:HG3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1089:ALA:HA	5:G:19:DG:H5'	1.74	0.69
3:N:699:VAL:CG2	3:N:760:ARG:HB3	2.22	0.69
3:N:1239:ARG:HB2	3:N:1239:ARG:HH11	1.58	0.69
2:M:267:TYR:HD2	2:M:267:TYR:O	1.73	0.69
1:L:92:PRO:HA	1:L:146:ARG:NH1	2.06	0.69
2:M:557:ARG:HD2	2:M:560:MET:HG3	1.73	0.69
5:G:7:DA:OP2	5:G:7:DA:H8	1.74	0.69
3:D:696:HIS:NE2	4:E:59:ASN:HB2	2.06	0.69
2:M:1115:LEU:HD12	2:M:1115:LEU:N	2.06	0.69
2:M:969:GLN:OE1	3:N:952:ASP:HB2	1.93	0.69
2:C:274:ARG:NH1	2:C:285:LEU:HD22	2.07	0.69
3:D:1197:ARG:HD3	3:D:1198:TYR:H	1.58	0.69
3:D:678:GLU:HG3	3:D:679:ARG:HG3	1.74	0.69
3:N:715:ALA:HB3	3:N:764:LEU:HA	1.73	0.69
3:N:925:GLU:OE2	4:O:5:GLY:HA2	1.93	0.69
3:N:1031:ASN:OD1	3:N:1033:GLN:HB2	1.91	0.69
3:N:502:PHE:CE1	3:N:1452:ILE:HG23	2.28	0.69
3:N:198:ARG:HG3	3:N:198:ARG:O	1.92	0.69
2:C:776:SER:HA	2:C:780:GLU:HB3	1.75	0.69
2:C:554:ASP:OD2	2:C:556:ASN:HB3	1.92	0.69
2:M:237:ARG:HH11	2:M:237:ARG:HB2	1.56	0.69
3:D:1041:LEU:O	3:D:1045:MET:HB2	1.93	0.69
2:C:399:ASN:OD1	2:C:402:SER:N	2.23	0.69
2:M:442:GLU:HG2	2:M:454:SER:HB2	1.73	0.69
3:N:1106:VAL:HG11	3:N:1474:ALA:HB2	1.75	0.69
4:E:54:LEU:HA	4:E:58:PRO:CG	2.22	0.69
4:E:45:ARG:HG2	4:E:46:PRO:HD2	1.74	0.69
3:N:957:PRO:HG2	3:N:1007:VAL:CG2	2.18	0.69
3:N:1281:VAL:N	3:N:1317:ASP:O	2.26	0.69
2:C:971:LYS:HA	2:C:988:VAL:HA	1.73	0.69
2:M:888:THR:O	2:M:990:GLY:HA3	1.93	0.69
1:A:106:PRO:CG	1:A:134:GLU:OE1	2.41	0.69
2:C:922:PHE:HB3	2:C:964:LYS:HZ1	1.58	0.69
2:M:567:GLN:HE22	6:Y:13:C:H5''	1.58	0.69
1:B:57:TYR:HE1	1:B:163:ASN:HB2	1.58	0.69
3:D:1111:ASP:HA	3:D:1201:CYS:HB2	1.75	0.69
2:M:674:VAL:HG12	2:M:990:GLY:O	1.93	0.69
2:C:725:ASP:O	2:C:727:PRO:HD3	1.92	0.69
3:D:758:GLU:HB3	3:D:762:GLN:HE21	1.57	0.69
2:C:830:LYS:O	2:C:832:LYS:N	2.26	0.69
2:M:644:VAL:HG22	2:M:647:GLN:OE1	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:38:ASN:HB3	1:L:39:PRO:HD3	1.75	0.69
5:G:5:DC:H2'	5:G:6:DT:C4'	2.23	0.69
7:I:11:DG:C2'	7:I:12:DT:H72	2.22	0.69
3:N:625:TYR:HH	3:N:655:PRO:HG2	1.58	0.69
3:N:153:LEU:HD12	3:N:153:LEU:O	1.93	0.69
2:C:129:ILE:H	2:C:129:ILE:CD1	2.06	0.69
3:D:1239:ARG:O	3:D:1240:THR:HG23	1.92	0.69
2:C:723:THR:HG23	2:C:725:ASP:H	1.57	0.69
3:N:179:VAL:HG13	3:N:183:GLU:HB3	1.75	0.69
3:N:567:ILE:O	3:N:571:LYS:HG2	1.93	0.69
2:C:329:GLY:C	2:C:330:ASN:ND2	2.47	0.68
2:M:1038:TRP:HA	2:M:1041:GLU:OE1	1.93	0.68
3:N:710:ARG:HH12	4:O:16:LYS:NZ	1.91	0.68
6:Y:9:C:O2'	6:Y:10:G:H5'	1.93	0.68
1:B:38:ASN:HB3	1:B:39:PRO:HD3	1.73	0.68
3:N:1225:ALA:HA	3:N:1367:HIS:ND1	2.08	0.68
1:K:96:THR:OG1	1:K:143:ARG:HD2	1.92	0.68
2:M:64:LEU:CD2	2:M:359:MET:HG3	2.23	0.68
1:L:195:LEU:HD12	1:L:196:THR:N	2.08	0.68
3:N:916:TYR:O	3:N:920:LEU:HG	1.93	0.68
3:N:1216:SER:HB3	4:O:15:SER:HA	1.75	0.68
2:C:50:GLU:CB	2:C:266:ARG:NH1	2.56	0.68
2:M:86:LYS:HB3	2:M:813:VAL:HG23	1.76	0.68
3:N:156:GLU:O	3:N:160:GLU:HG3	1.93	0.68
3:D:1335:LEU:HD21	3:D:1344:VAL:HA	1.76	0.68
3:D:638:LYS:HB2	3:D:641:GLN:NE2	2.08	0.68
3:D:28:LYS:CG	3:D:29:PRO:HD2	2.23	0.68
2:M:332:ARG:HG2	2:M:333:ILE:N	2.07	0.68
3:D:528:VAL:HG12	3:D:529:GLN:H	1.58	0.68
2:M:979:THR:HG23	2:M:981:GLU:H	1.58	0.68
2:C:212:GLY:HA3	2:C:218:VAL:HG21	1.74	0.68
2:C:1042:ALA:CB	3:D:1227:GLN:HE22	1.90	0.68
2:M:1062:GLY:O	2:M:1066:ALA:HB2	1.93	0.68
3:N:1129:THR:HB	3:N:1320:GLU:OE1	1.92	0.68
3:N:1129:THR:CB	3:N:1320:GLU:HG3	2.21	0.68
2:M:455:LEU:CD1	2:M:459:ALA:HB3	2.14	0.68
2:C:274:ARG:HG2	2:C:285:LEU:HD13	1.76	0.68
1:A:162:ILE:HG13	1:A:163:ASN:H	1.57	0.68
2:C:598:GLU:O	2:C:651:LYS:HG3	1.94	0.68
1:A:206:THR:HG22	1:A:209:GLU:HG3	1.75	0.68
2:C:290:LEU:HB3	2:C:302:VAL:HG11	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:122:GLU:O	3:N:126:VAL:HG23	1.93	0.68
3:D:1167:SER:O	3:D:1171:VAL:HG23	1.93	0.68
3:D:799:LYS:CB	3:D:826:PRO:HG2	2.23	0.68
3:D:897:TRP:HA	3:D:900:ILE:HG12	0.69	0.68
3:N:1109:GLU:HG2	3:N:1200:VAL:O	1.94	0.68
2:C:690:ILE:HG13	2:C:694:LEU:HD12	1.75	0.68
3:N:1283:ILE:HD11	3:N:1314:LYS:HA	1.75	0.68
3:N:1292:VAL:HG22	3:N:1311:LEU:HD13	1.74	0.68
2:C:679:PHE:C	3:D:943:THR:HG22	2.14	0.68
3:D:133:ILE:O	3:D:152:LEU:HB2	1.92	0.68
2:M:266:ARG:HA	2:M:288:ARG:HD3	1.75	0.68
1:B:87:VAL:HG21	1:B:144:VAL:HG11	1.75	0.68
2:M:725:ASP:O	2:M:727:PRO:HD3	1.93	0.68
2:C:1062:GLY:O	2:C:1066:ALA:HB2	1.93	0.68
3:D:1256:LEU:N	3:D:1257:PRO:CD	2.57	0.68
3:D:28:LYS:HB3	3:D:41:ARG:HD2	1.74	0.68
2:C:185:LYS:HG2	2:C:190:LYS:HG3	1.75	0.68
2:C:1006:HIS:HD1	2:C:1027:PHE:HD1	1.40	0.68
3:D:540:LEU:H	3:D:540:LEU:HD12	1.58	0.68
2:C:1097:LEU:N	2:C:1097:LEU:HD22	2.04	0.68
3:D:704:ARG:CA	3:D:745:MET:HG2	2.21	0.68
3:N:152:LEU:HD23	3:N:152:LEU:H	1.59	0.68
3:N:508:ARG:HB3	3:N:510:GLU:OE2	1.94	0.68
2:C:946:ARG:HA	2:C:949:LYS:HD2	1.75	0.68
3:N:1394:VAL:HB	3:N:1397:LYS:HE2	1.76	0.68
1:B:49:PRO:HA	1:B:148:VAL:HG12	1.75	0.68
2:M:367:LEU:HB3	2:M:371:LYS:HE3	1.76	0.68
3:D:47:GLU:HG2	3:D:53:ILE:HB	1.74	0.68
3:D:9:ARG:HA	3:D:1434:TRP:HH2	1.58	0.68
5:G:25:DG:H2'	5:G:26:DC:C6	2.28	0.68
7:I:1:DG:H3'	7:I:1:DG:P	2.33	0.68
1:A:42:ARG:CZ	1:B:34:VAL:HB	2.24	0.68
2:M:1109:VAL:HG21	3:N:5:VAL:HG13	1.76	0.68
2:C:630:ARG:HD3	2:C:705:ILE:CG2	2.24	0.68
2:M:690:ILE:HG12	2:M:691:SER:N	2.08	0.68
2:C:1016:ILE:HG12	2:C:1017:THR:HG23	1.76	0.68
4:O:25:LYS:HA	4:O:28:GLN:NE2	2.09	0.68
3:D:554:LEU:HA	3:D:557:LEU:HD12	1.76	0.68
2:C:274:ARG:NE	2:C:278:GLU:OE2	2.27	0.68
2:M:710:ILE:HD11	2:M:758:ARG:HE	1.56	0.68
2:M:710:ILE:HD12	2:M:790:LEU:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:358:ARG:HH22	2:C:374:ASN:HB3	1.59	0.68
1:K:171:PHE:O	1:K:173:PRO:HD3	1.94	0.68
1:A:13:VAL:HG12	1:A:14:ARG:N	2.08	0.68
2:C:396:ASP:HA	2:C:633:GLN:NE2	2.09	0.68
3:D:9:ARG:HA	3:D:1455:LYS:O	1.94	0.68
3:D:739:ASP:O	3:D:743:ASP:CG	2.32	0.68
3:N:1223:ILE:O	3:N:1227:GLN:HG3	1.94	0.68
3:D:642:CYS:SG	3:D:716:PHE:HB2	2.34	0.68
4:E:26:ARG:O	4:E:30:LEU:HD12	1.94	0.68
3:N:646:LYS:NZ	3:N:688:TRP:CE2	2.59	0.68
2:C:571:LEU:HD21	2:C:700:TYR:HA	1.75	0.68
3:N:720:LEU:H	3:N:720:LEU:HD12	1.57	0.68
2:C:73:LEU:HB2	2:C:93:PRO:O	1.94	0.68
2:C:889:HIS:O	2:C:892:LEU:HB3	1.94	0.68
7:I:11:DG:O5'	7:I:11:DG:H8	1.77	0.67
3:D:1109:GLU:HG2	3:D:1201:CYS:CA	2.21	0.67
2:M:971:LYS:HA	2:M:988:VAL:HA	1.76	0.67
2:M:7:GLY:HA3	2:M:904:PRO:HG2	1.76	0.67
2:M:274:ARG:HG3	2:M:274:ARG:HH11	1.58	0.67
3:D:701:LEU:H	3:D:701:LEU:HD12	1.59	0.67
2:C:435:TYR:O	2:C:437:ARG:HD2	1.93	0.67
3:N:80:VAL:HG12	3:N:81:THR:O	1.94	0.67
3:N:1263:PHE:O	3:N:1424:VAL:HG12	1.94	0.67
1:B:102:LYS:HD2	1:B:139:ASN:OD1	1.94	0.67
2:M:378:LEU:HG	2:M:382:ILE:HD11	1.76	0.67
2:C:52:PHE:HE1	2:C:68:PHE:N	1.91	0.67
3:D:1448:THR:O	3:D:1452:ILE:HD13	1.95	0.67
3:D:505:SER:CB	3:D:1453:ALA:HA	2.24	0.67
3:D:619:LEU:HB2	3:D:621:LYS:NZ	2.10	0.67
3:N:1209:LEU:HD23	3:N:1210:SER:N	2.08	0.67
6:H:4:G:H2'	6:H:5:C:C6	2.29	0.67
3:N:104:PHE:CD2	3:N:1448:THR:HG23	2.29	0.67
7:Z:15:DT:H2''	7:Z:16:DG:OP2	1.94	0.67
2:C:304:LEU:HD23	2:C:305:PRO:HD3	1.77	0.67
3:D:827:ILE:H	3:D:827:ILE:HD12	1.60	0.67
3:D:1447:LEU:CD1	3:D:1447:LEU:H	2.07	0.67
3:D:1457:ASP:O	3:D:1459:LEU:HD12	1.93	0.67
2:M:1040:LEU:HG	2:M:1045:ALA:HB3	1.76	0.67
2:M:1053:LEU:HD12	3:N:1469:GLY:HA2	1.76	0.67
3:N:732:VAL:HB	3:N:736:PHE:HE1	1.59	0.67
2:M:289:THR:O	2:M:291:ALA:N	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:31:GLY:O	1:A:34:VAL:CG1	2.42	0.67
2:M:862:PRO:CB	2:M:929:ARG:HH22	2.05	0.67
3:N:486:ARG:O	3:N:490:ALA:HB2	1.94	0.67
3:N:493:ARG:NH1	3:N:1391:GLU:HG2	2.09	0.67
2:M:420:ARG:HD2	7:Z:1:DG:C5'	2.24	0.67
3:D:785:ILE:HG23	3:D:938:GLY:HA3	1.76	0.67
3:D:41:ARG:C	3:D:43:GLY:H	1.97	0.67
2:M:580:MET:HB3	2:M:584:GLU:CD	2.15	0.67
2:M:760:SER:O	2:M:785:VAL:HG22	1.95	0.67
2:C:58:ASP:O	2:C:59:LYS:CB	2.42	0.67
2:M:69:LEU:HB2	2:M:97:ARG:HB2	1.75	0.67
3:N:206:ARG:HB2	3:N:392:SER:O	1.94	0.67
2:C:218:VAL:HG13	2:C:221:LEU:HD21	1.77	0.67
2:M:430:VAL:HG11	3:N:1075:HIS:HA	1.75	0.67
2:M:189:ARG:HD3	2:M:190:LYS:H	1.60	0.67
3:D:1031:ASN:HB3	3:D:1034:GLN:CB	2.25	0.67
3:N:1481:VAL:HG13	4:O:18:ARG:HE	1.58	0.67
2:C:693:GLU:CG	2:C:697:ARG:HH21	2.08	0.67
2:C:939:ARG:NE	2:C:939:ARG:HA	2.10	0.67
1:A:63:HIS:HB3	2:C:746:GLY:HA3	1.77	0.67
2:M:690:ILE:HG23	2:M:852:ILE:HA	1.77	0.67
1:A:178:ALA:HB2	2:C:864:GLY:N	2.10	0.67
2:C:151:ASP:HB2	2:C:157:ARG:O	1.95	0.67
2:C:957:LYS:HB3	2:C:962:GLN:HG2	1.77	0.67
2:C:682:TYR:CZ	3:D:635:PRO:HG2	2.29	0.67
3:N:1128:VAL:CB	3:N:1133:ARG:HH22	2.04	0.67
3:N:1293:PHE:HB3	3:N:1295:GLU:HG3	1.74	0.67
3:D:714:GLN:HE21	3:D:765:SER:HB3	1.60	0.67
2:M:841:ASN:HD21	2:M:884:GLN:HB3	1.60	0.67
3:D:646:LYS:HG3	3:D:647:ARG:N	2.10	0.67
2:C:595:LEU:O	2:C:655:LEU:HG	1.95	0.67
3:N:1377:LYS:O	3:N:1377:LYS:HG2	1.93	0.67
2:C:937:ASP:HB3	2:C:940:GLU:HG3	1.76	0.67
6:H:5:C:C6	6:H:5:C:H3'	2.30	0.67
2:C:690:ILE:HG23	2:C:852:ILE:HA	1.76	0.67
2:C:304:LEU:CD2	2:C:305:PRO:HD3	2.25	0.67
3:N:166:GLN:CA	3:N:198:ARG:HB3	2.24	0.67
2:M:668:LEU:HD12	2:M:668:LEU:N	2.09	0.67
2:C:358:ARG:HH12	2:C:374:ASN:CG	1.98	0.67
1:L:87:VAL:HG21	1:L:144:VAL:HG11	1.75	0.67
3:N:619:LEU:HB2	3:N:621:LYS:HZ3	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:163:ILE:HD13	2:M:171:TRP:CH2	2.29	0.67
2:M:265:ARG:HB3	2:M:267:TYR:CD1	2.29	0.67
4:E:28:GLN:O	4:E:32:ARG:NH1	2.27	0.67
2:C:89:THR:HG21	2:C:383:ARG:NH1	2.06	0.67
2:C:987:ILE:CG2	3:D:948:THR:HG21	2.23	0.67
3:D:950:GLY:O	3:D:953:ASP:HB2	1.95	0.67
1:L:80:LEU:HD12	1:L:83:LYS:NZ	2.10	0.67
2:M:588:VAL:HG23	2:M:596:TYR:OH	1.95	0.67
3:N:1061:PHE:HE1	3:N:1065:LEU:HD22	1.60	0.67
2:M:195:LEU:CD2	2:M:238:LEU:HG	2.25	0.67
2:C:69:LEU:CD1	2:C:97:ARG:HB3	2.20	0.67
2:M:393:GLN:HE21	6:Y:10:G:H4'	1.58	0.67
2:M:267:TYR:CD2	2:M:267:TYR:O	2.47	0.67
3:N:646:LYS:HG3	3:N:688:TRP:CH2	2.30	0.67
3:N:157:GLU:O	3:N:160:GLU:HB2	1.95	0.67
2:M:673:LEU:HD22	2:M:867:VAL:HG12	1.77	0.67
3:N:1259:VAL:HA	3:N:1262:LEU:HD22	1.77	0.67
3:N:434:ARG:HD2	3:N:435:VAL:H	1.60	0.67
3:N:639:LEU:HD12	3:N:640:HIS:N	2.09	0.67
2:M:144:PRO:HG2	2:M:265:ARG:HH11	1.59	0.67
2:M:941:VAL:HA	2:M:944:LEU:HB2	1.75	0.67
3:D:952:ASP:HA	3:D:1062:ARG:NH2	2.10	0.67
1:K:177:VAL:O	2:M:864:GLY:CA	2.43	0.66
3:D:1381:VAL:HB	3:D:1389:LEU:O	1.93	0.66
2:C:152:PRO:HD3	2:C:159:ILE:HD11	1.77	0.66
2:M:703:ILE:HD12	2:M:703:ILE:N	2.09	0.66
3:N:1431:THR:HG23	3:N:1433:SER:O	1.96	0.66
1:K:88:ARG:HH22	1:K:90:LEU:HG	1.59	0.66
2:C:654:LEU:HD23	2:C:654:LEU:H	1.59	0.66
5:X:27:DC:H2'	5:X:28:DG:C8	2.31	0.66
2:M:143:SER:CB	2:M:276:LYS:HE2	2.24	0.66
3:N:1229:ILE:HD11	3:N:1367:HIS:HB3	1.78	0.66
3:D:785:ILE:CG2	3:D:938:GLY:HA3	2.25	0.66
3:N:525:ARG:HB2	3:N:538:SER:CB	2.23	0.66
3:D:1412:LYS:O	3:D:1414:PRO:HD3	1.95	0.66
3:D:30:GLU:HB2	3:D:41:ARG:HG3	1.75	0.66
2:C:800:VAL:HA	2:C:827:VAL:HG22	1.78	0.66
3:D:1094:LEU:HD11	3:D:1260:ILE:HD12	1.77	0.66
3:D:1255:GLY:C	3:D:1257:PRO:HD2	2.16	0.66
3:N:619:LEU:HB2	3:N:621:LYS:NZ	2.10	0.66
3:N:646:LYS:CD	3:N:688:TRP:CE2	2.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:919:PHE:HA	3:D:927:THR:OG1	1.95	0.66
2:M:580:MET:O	2:M:902:ILE:HA	1.95	0.66
2:M:905:ILE:HG22	2:M:906:PHE:N	2.10	0.66
2:C:140:ILE:HG23	2:C:410:ILE:CD1	2.25	0.66
1:L:19:GLU:HG3	1:L:201:THR:O	1.94	0.66
2:C:537:LYS:CD	2:C:905:ILE:HD13	2.25	0.66
1:A:50:GLY:HA3	1:A:173:PRO:HG3	1.77	0.66
3:N:116:LEU:HB3	3:N:118:LEU:HD11	1.76	0.66
1:B:56:VAL:HG13	1:B:142:VAL:HG12	1.77	0.66
1:L:38:ASN:O	1:L:41:ARG:HB3	1.95	0.66
3:N:1213:ARG:NH2	4:O:14:ASP:HA	2.11	0.66
2:C:939:ARG:HD3	2:C:982:PRO:CD	2.24	0.66
3:N:166:GLN:HA	3:N:198:ARG:CB	2.26	0.66
3:D:1213:ARG:HH12	4:E:11:GLY:HA2	1.59	0.66
2:C:148:PHE:HZ	2:C:281:LEU:HD13	1.59	0.66
1:L:102:LYS:HE2	1:L:139:ASN:HB2	1.77	0.66
1:B:123:MET:C	1:B:125:PRO:HD3	2.16	0.66
3:N:1476:THR:HG23	4:O:21:VAL:HG22	1.78	0.66
3:D:750:PRO:HB2	3:D:756:GLN:HA	1.78	0.66
2:C:289:THR:O	2:C:291:ALA:N	2.28	0.66
3:D:57:GLU:HG2	3:D:58:CYS:N	2.10	0.66
3:N:25:GLU:HB2	3:N:92:HIS:CE1	2.30	0.66
2:C:326:ASP:HB2	2:C:431:HIS:HD1	1.58	0.66
2:C:433:THR:C	2:C:435:TYR:H	1.99	0.66
2:M:1087:VAL:O	2:M:1091:GLU:HG3	1.96	0.66
2:M:751:PRO:HB3	2:M:794:PRO:HA	1.78	0.66
3:N:28:LYS:HB2	3:N:41:ARG:HD2	1.77	0.66
2:C:1045:ALA:HB2	3:D:763:MET:CE	2.26	0.66
1:K:9:PRO:HB3	1:K:25:LEU:CG	2.24	0.66
2:M:579:VAL:HG13	2:M:842:ARG:NH2	2.10	0.66
2:C:532:MET:HG2	2:C:533:ASP:N	2.09	0.66
1:B:52:ALA:HB2	1:B:170:VAL:C	2.16	0.66
3:N:1137:ARG:O	3:N:1141:GLU:HG3	1.95	0.66
2:C:642:ARG:HG3	2:C:657:ASP:OD2	1.95	0.66
3:D:1097:LYS:O	3:D:1101:VAL:HG22	1.95	0.66
3:D:613:ARG:HH11	3:D:616:GLN:HG2	1.59	0.66
2:M:1105:LYS:O	2:M:1105:LYS:HD2	1.95	0.66
3:D:1481:VAL:CG1	4:E:21:VAL:HG21	2.25	0.66
2:M:676:ILE:O	2:M:676:ILE:HG23	1.95	0.66
3:D:574:LEU:O	3:D:578:VAL:HG23	1.96	0.66
3:D:526:PRO:O	3:D:537:THR:HA	1.94	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:646:LYS:HB2	3:N:688:TRP:CH2	2.29	0.66
3:N:1292:VAL:O	3:N:1303:TYR:HB2	1.95	0.66
4:O:54:LEU:HA	4:O:58:PRO:CG	2.24	0.66
3:N:785:ILE:HD12	3:N:785:ILE:H	1.61	0.66
1:A:153:ALA:HA	1:A:156:HIS:NE2	2.11	0.66
2:C:1089:VAL:O	2:C:1092:LEU:HB2	1.96	0.66
1:A:43:ILE:CG2	1:A:47:SER:OG	2.44	0.66
3:N:15:PRO:HA	3:N:18:ILE:HG12	1.78	0.66
3:D:1111:ASP:HB2	3:D:1203:LYS:HG3	1.78	0.66
3:D:1084:THR:HA	3:D:1087:ARG:HG2	1.78	0.66
1:L:101:LEU:HD23	1:L:101:LEU:C	2.16	0.66
2:M:237:ARG:HH11	2:M:237:ARG:CB	2.09	0.66
2:C:1013:TYR:HA	2:C:1020:PRO:HA	1.76	0.66
1:A:197:LEU:HD23	1:A:197:LEU:H	1.61	0.66
3:D:1258:ARG:NH1	3:D:1329:ALA:HB1	2.04	0.66
3:N:637:LEU:HD11	3:N:642:CYS:N	2.11	0.66
2:M:1001:VAL:HG11	5:X:24:DC:OP1	1.96	0.66
3:N:477:LEU:HD13	3:N:496:LEU:HB2	1.77	0.66
2:C:939:ARG:HB3	2:C:982:PRO:HG3	1.78	0.66
3:N:1268:PRO:HG3	3:N:1329:ALA:CB	2.22	0.66
1:L:52:ALA:HB2	1:L:170:VAL:C	2.16	0.66
1:L:80:LEU:HG	3:N:844:ALA:CA	2.25	0.66
1:A:18:ARG:O	1:A:207:PRO:HD3	1.95	0.66
2:C:73:LEU:HB3	2:C:94:LEU:HA	1.78	0.66
2:C:459:ALA:HB1	2:C:467:ILE:CG2	2.25	0.65
3:D:108:VAL:CB	3:D:109:PRO:HD3	2.26	0.65
3:D:10:ILE:CD1	3:D:1434:TRP:NE1	2.59	0.65
2:M:1009:SER:HB3	3:N:651:GLU:OE1	1.96	0.65
3:N:752:SER:OG	3:N:754:PHE:HB3	1.96	0.65
1:A:42:ARG:HH12	1:B:34:VAL:HB	1.59	0.65
3:N:646:LYS:HD2	3:N:688:TRP:CH2	2.31	0.65
3:N:1380:GLU:HA	3:N:1391:GLU:O	1.95	0.65
3:D:1194:CYS:HB3	3:D:1373:ARG:NH1	2.09	0.65
3:N:882:PHE:HA	3:N:885:ILE:HD12	1.78	0.65
3:N:1375:MET:HB3	3:N:1422:MET:O	1.96	0.65
3:D:1408:ILE:O	2:M:370:ALA:HB1	1.95	0.65
2:C:957:LYS:HG2	2:C:961:GLU:HB2	1.77	0.65
2:C:8:ARG:HH21	2:C:10:ARG:NH2	1.94	0.65
2:C:134:ARG:NH1	2:C:387:SER:HA	2.11	0.65
3:D:89:ARG:O	3:D:521:PRO:HG3	1.96	0.65
5:G:7:DA:H2"	5:G:8:DC:OP2	1.94	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:693:GLU:CG	4:O:48:MET:SD	2.84	0.65
1:L:79:ILE:HA	1:L:82:LEU:HD12	1.78	0.65
2:M:313:LEU:HB2	2:M:321:GLU:CG	2.25	0.65
3:N:41:ARG:HD3	3:N:42:ASP:H	1.61	0.65
2:M:445:GLU:CA	2:M:449:ILE:HD12	2.25	0.65
3:D:1380:GLU:HA	3:D:1391:GLU:O	1.96	0.65
2:M:732:ALA:HA	2:M:735:ARG:NH2	2.10	0.65
3:N:544:TYR:O	3:N:548:ILE:HG12	1.96	0.65
3:N:1239:ARG:HG3	3:N:1240:THR:H	1.62	0.65
2:M:286:SER:HB3	2:M:299:LYS:HE3	1.78	0.65
2:M:1092:LEU:HD13	2:M:1099:VAL:HG21	1.76	0.65
4:E:23:VAL:HG22	4:E:68:LEU:HD23	1.78	0.65
3:N:1448:THR:O	3:N:1452:ILE:HD13	1.96	0.65
2:M:86:LYS:O	2:M:88:LEU:N	2.28	0.65
2:C:265:ARG:H	2:C:289:THR:CG2	2.09	0.65
3:N:73:CYS:SG	3:N:75:ARG:HG3	2.35	0.65
3:D:46:ASP:OD2	3:D:48:ARG:HB3	1.95	0.65
1:L:188:GLN:CG	3:N:685:ASP:OD2	2.41	0.65
3:D:1237:THR:HG22	3:D:1238:MET:H	1.61	0.65
3:N:792:ILE:HG12	3:N:878:GLY:CA	2.27	0.65
2:C:1081:VAL:HB	2:C:1086:ARG:NE	2.11	0.65
2:C:34:VAL:HB	2:C:38:LYS:HG3	1.78	0.65
2:C:374:ASN:O	2:C:377:PRO:HD2	1.96	0.65
2:C:152:PRO:HD3	2:C:159:ILE:CD1	2.27	0.65
2:C:63:GLY:HA3	2:C:103:LYS:HG3	1.78	0.65
3:D:86:ARG:HG2	3:D:522:PRO:HG2	1.78	0.65
3:N:1129:THR:N	3:N:1320:GLU:HG2	2.10	0.65
2:M:1095:LEU:O	2:M:1097:LEU:N	2.29	0.65
6:H:5:C:O5'	6:H:5:C:H6	1.80	0.65
3:N:1441:GLN:CG	3:N:1442:ASN:H	2.09	0.65
5:X:6:DT:H2''	5:X:7:DA:C8	2.30	0.65
2:M:857:ASP:HB2	2:M:978:ARG:CG	2.21	0.65
3:N:86:ARG:O	3:N:522:PRO:HD2	1.96	0.65
3:D:715:ALA:HB3	3:D:764:LEU:HA	1.79	0.65
1:L:83:LYS:HD2	3:N:848:GLU:OE1	1.97	0.65
2:C:831:ARG:CZ	2:C:1004:LYS:HZ2	2.08	0.65
2:M:567:GLN:HE22	6:Y:13:C:C5'	2.10	0.65
2:C:165:LEU:HB3	2:C:265:ARG:NH1	2.12	0.65
2:M:653:ASP:OD1	2:M:654:LEU:HD23	1.97	0.65
3:D:645:PRO:HA	3:D:721:VAL:O	1.97	0.65
3:N:784:ASP:HB3	3:N:939:PHE:HE2	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:729:LEU:HD13	3:D:675:ARG:NH1	2.11	0.65
2:C:903:SER:OG	2:C:908:GLY:HA3	1.95	0.65
3:D:97:THR:HB	3:D:571:LYS:HE2	1.76	0.65
3:D:109:PRO:HB3	3:D:494:LYS:HZ3	1.60	0.65
3:D:728:LEU:HD11	3:D:732:VAL:CG2	2.26	0.65
3:N:1465:ASN:OD1	3:N:1473:PRO:HD3	1.96	0.65
2:M:486:MET:SD	2:M:490:GLU:CB	2.68	0.65
2:M:1095:LEU:HD21	3:N:603:LEU:HD13	1.74	0.65
3:N:1381:VAL:HG12	3:N:1382:THR:H	1.60	0.65
3:N:1100:ASP:OD2	3:N:1440:PHE:CB	2.44	0.65
3:N:1284:GLU:HG3	3:N:1285:GLU:N	2.12	0.65
3:N:433:GLY:HA3	3:N:447:VAL:O	1.97	0.65
3:D:1083:ASP:O	3:D:1087:ARG:CG	2.45	0.65
1:L:80:LEU:O	3:N:844:ALA:HB2	1.96	0.65
3:N:24:GLY:HA3	3:N:49:ILE:HG12	1.78	0.65
3:D:95:LEU:HD23	3:D:96:ALA:N	2.11	0.65
3:N:394:LEU:HD23	3:N:394:LEU:H	1.61	0.65
3:D:127:LEU:C	3:D:127:LEU:HD12	2.16	0.65
3:D:741:ASP:O	6:H:14:G:H5"	1.96	0.65
7:I:5:DC:C6	7:I:6:DT:H72	2.31	0.65
3:D:1033:GLN:O	3:D:1037:GLN:N	2.30	0.65
2:M:145:GLY:HA3	2:M:276:LYS:HD3	1.77	0.65
3:N:607:LEU:HA	3:N:613:ARG:HB2	1.77	0.65
3:D:696:HIS:CG	3:D:697:GLY:H	2.13	0.65
3:N:462:GLN:HG3	3:N:513:ILE:HG12	1.78	0.65
2:M:451:LEU:HB2	2:M:452:ILE:HD12	1.78	0.65
2:M:611:ILE:HD11	2:M:641:PRO:CG	2.27	0.65
2:C:537:LYS:NZ	2:C:904:PRO:HB3	2.10	0.65
3:D:808:THR:OG1	3:D:809:PRO:HD3	1.96	0.65
3:N:1264:GLU:O	3:N:1266:ARG:N	2.30	0.65
2:C:1016:ILE:HG22	3:D:523:ASP:O	1.97	0.65
3:D:615:ARG:NH2	3:D:1096:ARG:HD2	2.11	0.65
3:D:52:PRO:CG	3:D:80:VAL:HG13	2.27	0.65
2:M:1038:TRP:O	2:M:1041:GLU:HB2	1.97	0.65
2:M:1056:LYS:HE3	3:N:751:LEU:CD1	2.18	0.65
3:N:1438:ALA:HA	3:N:1446:VAL:HG11	1.77	0.65
2:C:86:LYS:O	2:C:88:LEU:N	2.29	0.65
3:N:1331:ASP:O	3:N:1335:LEU:HB2	1.96	0.65
2:C:145:GLY:HA3	2:C:276:LYS:HD3	1.78	0.65
3:D:862:ASP:O	3:D:876:SER:HA	1.96	0.65
1:A:102:LYS:HA	1:A:138:LEU:O	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1496:GLU:O	3:D:1499:ARG:HB2	1.97	0.65
3:D:10:ILE:HG13	3:D:1434:TRP:CE2	2.32	0.65
2:C:1042:ALA:HB3	3:D:710:ARG:HB3	1.78	0.65
7:I:12:DT:H2"	7:I:13:DA:OP2	1.97	0.65
3:N:924:MET:N	4:O:7:ASP:OD2	2.29	0.65
3:N:1114:THR:O	3:N:1189:ARG:NH2	2.21	0.65
3:N:87:ARG:HD3	3:N:524:LEU:CD1	2.26	0.65
1:L:101:LEU:HB2	1:L:114:PHE:HA	1.79	0.65
2:M:183:SER:HB2	2:M:190:LYS:HD3	1.78	0.65
3:N:1066:THR:HG22	3:N:1069:GLU:CD	2.17	0.65
2:C:1093:GLN:HB3	3:D:21:TRP:CE3	2.31	0.65
2:M:1032:PHE:O	2:M:1036:GLU:HB2	1.97	0.65
1:A:31:GLY:O	1:A:34:VAL:HG12	1.96	0.65
4:E:54:LEU:HG	4:E:58:PRO:CG	2.24	0.65
3:N:501:ALA:CB	3:N:1452:ILE:HG22	2.26	0.65
3:N:87:ARG:HB3	3:N:523:ASP:OD2	1.96	0.65
2:C:165:LEU:HA	2:C:166:PRO:O	1.97	0.65
2:C:276:LYS:HA	2:C:280:LYS:HD2	1.78	0.65
2:C:676:ILE:CG2	2:C:988:VAL:HG13	2.27	0.65
3:N:693:GLU:O	4:O:48:MET:SD	2.55	0.65
3:D:1237:THR:HB	3:D:1359:GLN:NE2	2.11	0.65
6:H:6:C:N4	6:H:7:G:C6	2.65	0.65
1:K:58:ILE:HD13	1:K:140:MET:HB3	1.77	0.65
2:C:342:ASP:O	2:C:346:VAL:HG23	1.97	0.65
2:C:468:ARG:HD3	2:C:485:TYR:HB3	1.78	0.64
3:D:614:PHE:CZ	3:D:1438:ALA:HB1	2.31	0.64
3:D:8:VAL:CG2	3:D:1435:LEU:HD21	2.26	0.64
3:D:716:PHE:O	3:D:718:PRO:HD3	1.97	0.64
2:M:937:ASP:OD2	2:M:939:ARG:HG2	1.97	0.64
3:D:1412:LYS:CB	2:M:376:ARG:HH21	2.09	0.64
2:C:877:PRO:HG3	3:D:1023:MET:SD	2.37	0.64
2:M:583:LEU:O	2:M:587:VAL:HG23	1.96	0.64
3:N:862:ASP:O	3:N:877:PRO:HD3	1.96	0.64
2:C:762:LYS:HD2	2:C:786:LYS:HB2	1.77	0.64
3:N:30:GLU:HB3	3:N:40:GLU:HG2	1.79	0.64
3:N:785:ILE:HD12	3:N:785:ILE:N	2.12	0.64
1:A:88:ARG:HG2	1:A:88:ARG:HH11	1.62	0.64
1:K:53:VAL:HG21	1:K:82:LEU:HB3	1.78	0.64
2:C:524:VAL:HG12	2:C:525:SER:H	1.62	0.64
3:D:7:LYS:CG	3:D:1458:GLU:HA	2.26	0.64
2:M:1008:ARG:HD2	2:M:1028:GLY:H	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:487:THR:HB	2:M:490:GLU:HG3	1.78	0.64
2:M:260:LEU:HD12	2:M:261:ILE:HG13	1.77	0.64
2:M:861:LEU:HD22	2:M:863:ASP:H	1.60	0.64
3:N:98:PRO:HG2	3:N:462:GLN:OE1	1.97	0.64
3:D:927:THR:O	3:D:930:LEU:HB3	1.97	0.64
2:C:1048:THR:OG1	3:D:758:GLU:HG3	1.96	0.64
2:C:1060:ILE:HG23	2:C:1061:GLU:N	2.12	0.64
1:A:102:LYS:HB3	1:A:139:ASN:OD1	1.97	0.64
2:C:244:PRO:CD	2:C:245:GLY:H	2.09	0.64
2:C:496:ILE:HA	2:C:531:PHE:O	1.97	0.64
2:C:899:GLN:HG3	2:C:901:TYR:OH	1.97	0.64
2:C:30:LEU:HD12	2:C:30:LEU:O	1.97	0.64
2:C:1036:GLU:N	2:C:1036:GLU:OE1	2.30	0.64
3:D:111:LYS:HE2	3:D:1445:HIS:NE2	2.12	0.64
5:G:21:DG:C2'	5:G:22:DA:O5'	2.45	0.64
1:A:32:PHE:HE1	1:B:221:HIS:NE2	1.80	0.64
2:M:692:GLU:OE1	2:M:854:PRO:HB3	1.97	0.64
3:D:809:PRO:HB2	3:D:812:ALA:CB	2.27	0.64
1:K:88:ARG:HH12	1:K:90:LEU:HD11	1.62	0.64
3:N:584:ASN:OD1	3:N:590:PRO:HD2	1.96	0.64
6:Y:9:C:C2'	6:Y:10:G:H5'	2.28	0.64
2:M:267:TYR:HB2	2:M:272:ALA:HB1	1.78	0.64
1:B:38:ASN:O	1:B:41:ARG:HB3	1.97	0.64
2:M:129:ILE:HD12	2:M:129:ILE:N	2.13	0.64
3:N:160:GLU:O	3:N:163:TYR:N	2.30	0.64
3:N:653:PHE:CZ	3:N:749:VAL:HG13	2.32	0.64
2:M:918:LEU:HD23	2:M:968:LEU:CA	2.25	0.64
2:M:193:LEU:HD23	2:M:307:LEU:HD11	1.79	0.64
3:N:840:LYS:HD3	3:N:841:TYR:CZ	2.32	0.64
2:C:1090:LYS:HD2	3:D:90:MET:CG	2.27	0.64
2:C:541:SER:OG	2:C:543:ASN:N	2.30	0.64
2:M:1032:PHE:CE2	2:M:1037:VAL:HA	2.33	0.64
2:M:462:ASP:HB3	2:M:468:ARG:HD2	1.79	0.64
2:M:486:MET:HG3	2:M:487:THR:O	1.98	0.64
3:N:153:LEU:HD13	3:N:158:TYR:HB2	1.78	0.64
2:M:433:THR:C	2:M:435:TYR:H	2.00	0.64
3:N:73:CYS:SG	3:N:76:CYS:N	2.70	0.64
1:A:106:PRO:HG2	1:A:134:GLU:OE1	1.98	0.64
3:N:1432:LYS:HZ3	3:N:1432:LYS:HB2	1.62	0.64
2:M:817:PRO:O	3:N:532:GLY:HA2	1.97	0.64
3:N:464:LEU:O	3:N:468:LEU:HG	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:685:GLU:OE1	3:D:739:ASP:HB3	1.97	0.64
3:D:1229:ILE:HD11	3:D:1367:HIS:HB3	1.79	0.64
3:N:714:GLN:HE22	3:N:732:VAL:HG11	1.63	0.64
5:X:27:DC:OP2	5:X:27:DC:C6	2.43	0.64
2:C:854:PRO:HB2	2:C:856:GLU:HG3	1.79	0.64
3:N:813:LEU:O	3:N:817:GLU:HB2	1.97	0.64
1:K:42:ARG:HH12	1:L:34:VAL:CG1	2.11	0.64
1:K:42:ARG:CZ	2:M:857:ASP:HB3	2.27	0.64
3:D:639:LEU:HG	3:D:932:ASP:OD1	1.97	0.64
2:M:41:ASN:HB2	2:M:45:GLN:HG2	1.79	0.64
2:C:148:PHE:CZ	2:C:281:LEU:HD13	2.33	0.64
2:M:626:ARG:O	2:M:638:ASP:HA	1.98	0.64
1:L:132:LEU:HG	1:L:136:GLY:HA3	1.79	0.64
2:C:611:ILE:HD11	2:C:641:PRO:HG3	1.78	0.64
2:C:1101:THR:C	2:C:1102:LEU:HD12	2.17	0.64
1:A:75:VAL:O	1:A:79:ILE:HG23	1.98	0.64
3:D:619:LEU:HD12	3:D:621:LYS:HZ1	1.62	0.64
3:D:709:HIS:HA	3:D:1227:GLN:HB3	1.78	0.64
2:M:1047:HIS:O	2:M:1051:GLU:HG3	1.98	0.64
2:M:1090:LYS:NZ	2:M:1112:PHE:HE1	1.90	0.64
3:N:1101:VAL:HG13	3:N:1428:ALA:CB	2.24	0.64
2:M:269:LEU:HG	2:M:288:ARG:HG2	1.79	0.64
3:D:951:ILE:CD1	3:D:1062:ARG:HE	2.09	0.64
7:I:17:DA:O5'	7:I:17:DA:H8	1.80	0.64
3:N:116:LEU:HB3	3:N:118:LEU:CD1	2.28	0.64
3:N:628:ARG:HG3	3:N:628:ARG:HH11	1.63	0.64
3:D:1033:GLN:HB3	3:D:1037:GLN:OE1	1.98	0.64
2:M:292:ARG:HB2	2:M:299:LYS:HG2	1.80	0.64
2:M:1058:ASP:OD1	2:M:1084:SER:HB3	1.98	0.64
3:N:187:LYS:HE2	3:N:199:LEU:HA	1.80	0.64
3:D:562:ALA:HB1	3:D:567:ILE:HD11	1.80	0.64
3:D:758:GLU:HB3	3:D:762:GLN:NE2	2.13	0.64
1:K:70:GLY:N	2:M:607:ASP:OD1	2.28	0.64
7:I:15:DT:H2''	7:I:16:DG:OP2	1.98	0.64
3:D:1493:LYS:O	3:D:1497:GLU:HG2	1.98	0.64
2:M:911:GLU:HA	2:M:914:ILE:HD12	1.80	0.64
3:D:1402:ALA:HB2	3:D:1415:VAL:HG21	1.79	0.64
3:D:832:ARG:HD2	3:D:832:ARG:O	1.97	0.64
2:C:327:HIS:HA	2:C:431:HIS:NE2	2.13	0.64
3:D:704:ARG:HE	3:D:705:ALA:HB3	1.62	0.64
2:M:396:ASP:CB	2:M:406:HIS:CD2	2.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:696:HIS:CE1	4:O:62:THR:HG21	2.32	0.64
3:N:52:PRO:HB2	3:N:83:SER:HA	1.79	0.64
3:D:1239:ARG:HA	3:D:1253:THR:HB	1.80	0.64
3:D:1238:MET:O	3:D:1253:THR:HG21	1.98	0.64
3:N:860:LEU:HD23	3:N:877:PRO:HB2	1.80	0.64
3:D:480:GLU:O	3:D:484:PRO:HD2	1.98	0.64
1:A:165:ILE:HG13	1:A:165:ILE:O	1.97	0.64
2:C:15:LEU:HD12	2:C:15:LEU:N	2.11	0.64
6:H:12:U:O5'	6:H:12:U:H6	1.81	0.64
2:M:1032:PHE:O	2:M:1033:GLY:O	2.16	0.64
3:N:1088:THR:HG21	5:X:19:DG:N2	2.13	0.64
2:M:263:ASP:O	2:M:264:PRO:O	2.15	0.64
2:M:264:PRO:HB3	2:M:289:THR:HB	1.78	0.64
2:M:1111:ILE:HG13	2:M:1112:PHE:H	1.62	0.64
3:N:456:MET:O	3:N:459:GLU:HB3	1.98	0.64
3:N:45:PHE:CD1	3:N:522:PRO:HB3	2.33	0.64
3:D:133:ILE:HG12	3:D:456:MET:HB3	1.79	0.64
2:C:888:THR:O	2:C:990:GLY:HA3	1.98	0.64
1:A:50:GLY:CA	1:A:173:PRO:HG3	2.28	0.64
2:M:124:ASP:OD1	2:M:126:SER:OG	2.10	0.64
2:C:602:GLU:OE1	2:C:648:ARG:HG2	1.98	0.64
3:N:550:ARG:HD3	3:N:570:GLU:OE1	1.97	0.64
2:C:622:GLU:O	2:C:624:PRO:HD3	1.98	0.64
2:C:1034:GLU:CD	3:D:619:LEU:HD22	2.17	0.63
7:I:11:DG:C2'	7:I:12:DT:C7	2.77	0.63
2:M:683:ASN:O	2:M:683:ASN:ND2	2.24	0.63
2:C:85:GLU:O	2:C:824:ARG:NH2	2.31	0.63
3:N:1380:GLU:HG3	3:N:1381:VAL:H	1.63	0.63
3:N:484:PRO:HB3	3:N:488:ARG:NH2	2.13	0.63
3:N:1274:ILE:HD12	3:N:1274:ILE:O	1.98	0.63
3:D:1412:LYS:HB2	2:M:376:ARG:HH21	1.61	0.63
2:C:683:ASN:OD1	2:C:872:ASN:HB2	1.98	0.63
2:M:854:PRO:HB2	2:M:856:GLU:HG3	1.79	0.63
3:N:862:ASP:O	3:N:876:SER:HA	1.97	0.63
3:N:1345:GLU:O	3:N:1349:VAL:HG23	1.98	0.63
1:B:179:PHE:HB2	1:B:195:LEU:HD11	1.80	0.63
3:N:937:TYR:O	3:N:941:PHE:HB2	1.98	0.63
3:D:104:PHE:CD2	3:D:1448:THR:HG23	2.33	0.63
3:D:704:ARG:HG3	3:D:705:ALA:N	2.12	0.63
6:H:11:C:H2'	6:H:12:U:C6	2.33	0.63
3:N:1472:ILE:HD13	3:N:1472:ILE:N	2.00	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1485:GLN:HB2	4:O:79:LEU:HB3	1.80	0.63
4:E:46:PRO:HB2	4:E:54:LEU:HD22	1.80	0.63
3:N:1389:LEU:HD12	3:N:1390:LEU:N	2.13	0.63
3:N:33:ASN:OD1	3:N:35:ARG:HG3	1.98	0.63
3:N:899:LEU:HB3	3:N:917:GLN:HG2	1.80	0.63
3:D:54:LYS:O	3:D:55:ASP:O	2.17	0.63
2:C:1083:GLU:O	2:C:1087:VAL:HG12	1.98	0.63
2:C:460:ARG:HG2	2:C:485:TYR:CE2	2.33	0.63
5:G:16:DT:H2''	5:G:17:DA:OP1	1.99	0.63
3:N:619:LEU:HD12	3:N:621:LYS:HZ1	1.63	0.63
3:D:1410:GLU:OE2	2:M:373:VAL:HG12	1.98	0.63
2:M:884:GLN:O	2:M:992:MET:HE1	1.98	0.63
2:M:630:ARG:HH11	2:M:630:ARG:HG3	1.63	0.63
2:M:906:PHE:CD1	3:N:1067:VAL:HG22	2.32	0.63
3:D:1432:LYS:HB2	3:D:1432:LYS:NZ	2.13	0.63
2:C:157:ARG:NH2	2:C:158:TYR:CE1	2.65	0.63
2:C:12:VAL:HG11	2:C:472:ARG:HD3	1.79	0.63
1:B:101:LEU:HB2	1:B:114:PHE:HA	1.79	0.63
3:N:1149:LEU:HD22	3:N:1151:ARG:O	1.97	0.63
2:C:1115:LEU:CD2	3:D:85:VAL:HG12	2.27	0.63
3:N:695:ILE:O	3:N:696:HIS:C	2.37	0.63
3:N:834:THR:HA	3:N:838:ARG:NH1	2.13	0.63
5:X:7:DA:H2''	5:X:8:DC:C5'	2.27	0.63
2:C:694:LEU:HD21	2:C:868:ASP:CB	2.27	0.63
3:D:1200:VAL:HG22	3:D:1373:ARG:HH12	1.62	0.63
2:C:129:ILE:HG22	2:C:130:ASN:N	2.13	0.63
3:N:521:PRO:CD	3:N:524:LEU:HD22	2.26	0.63
2:C:264:PRO:HB3	2:C:289:THR:HB	1.80	0.63
3:N:690:ALA:O	3:N:694:VAL:HG23	1.98	0.63
3:N:845:ASN:CG	3:N:846:PRO:HD2	2.18	0.63
2:M:217:LEU:HD12	2:M:311:PHE:CD2	2.33	0.63
2:M:631:SER:HB3	2:M:635:THR:N	2.11	0.63
2:C:720:GLU:HG2	2:C:760:SER:CB	2.28	0.63
2:C:836:GLY:HA3	3:D:724:GLN:OE1	1.98	0.63
1:A:154:GLU:N	1:A:154:GLU:CD	2.51	0.63
2:C:216:GLU:HG2	2:C:219:GLN:OE1	1.98	0.63
3:N:853:VAL:HA	3:N:858:VAL:O	1.99	0.63
3:N:565:ILE:H	3:N:565:ILE:HD12	1.64	0.63
3:D:1442:ASN:O	3:D:1443:THR:HG23	1.99	0.63
2:M:1013:TYR:HE1	2:M:1020:PRO:HG3	1.63	0.63
2:M:1032:PHE:HE2	2:M:1037:VAL:HA	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:477:LEU:HD22	3:N:492:ALA:HB1	1.80	0.63
3:N:457:GLY:C	3:N:459:GLU:N	2.49	0.63
3:N:97:THR:HG23	3:N:459:GLU:HB2	1.81	0.63
2:C:572:ILE:HG13	2:C:573:ARG:H	1.64	0.63
3:N:398:ALA:CB	3:N:447:VAL:HA	2.26	0.63
2:M:694:LEU:HD21	2:M:868:ASP:OD2	1.98	0.63
2:C:31:GLN:HB3	2:C:71:TYR:HH	1.64	0.63
3:N:659:LYS:HE3	3:N:663:GLU:OE2	1.98	0.63
3:D:618:LEU:HD11	3:D:1463:LYS:HG3	1.80	0.63
3:D:18:ILE:HD12	3:D:518:PRO:HG3	1.80	0.63
2:M:1013:TYR:HA	2:M:1020:PRO:HA	1.81	0.63
3:N:704:ARG:HG2	3:N:736:PHE:HB3	1.80	0.63
2:M:1085:PHE:O	2:M:1088:LEU:HB3	1.99	0.63
3:D:731:LEU:HD21	3:D:782:SER:H	1.63	0.63
3:N:130:SER:O	3:N:568:ARG:HD3	1.99	0.63
3:D:638:LYS:HZ3	3:D:932:ASP:HB3	1.64	0.63
4:O:47:LYS:N	4:O:54:LEU:HD13	2.13	0.63
2:M:496:ILE:HD12	2:M:496:ILE:N	2.13	0.63
2:C:50:GLU:CB	2:C:266:ARG:CZ	2.76	0.63
3:D:654:LYS:HB3	3:D:655:PRO:CD	2.28	0.63
3:N:115:LEU:C	3:N:115:LEU:HD23	2.19	0.63
5:X:3:DC:O5'	5:X:3:DC:H6	1.81	0.63
2:M:77:PRO:HD3	2:M:93:PRO:HD3	1.80	0.63
2:C:265:ARG:HG2	2:C:267:TYR:H	1.64	0.63
2:C:300:ASP:OD2	2:C:303:PHE:HB2	1.99	0.63
3:N:693:GLU:O	4:O:48:MET:CE	2.46	0.63
2:C:1047:HIS:HB2	3:D:758:GLU:OE1	1.99	0.63
2:M:473:ARG:HG3	2:M:474:VAL:N	2.11	0.63
1:B:9:PRO:HB3	1:B:25:LEU:HD21	1.79	0.63
2:M:498:GLN:CG	2:M:516:ARG:HH21	2.12	0.63
3:D:1453:ALA:O	3:D:1455:LYS:N	2.31	0.63
3:N:696:HIS:CG	3:N:697:GLY:N	2.67	0.63
3:N:1240:THR:O	3:N:1241:PHE:CB	2.47	0.63
3:N:1126:ASP:OD1	3:N:1129:THR:N	2.32	0.63
3:N:12:LEU:HD23	3:N:13:ALA:H	1.64	0.63
2:C:1056:LYS:HZ1	3:D:749:VAL:H	1.44	0.63
2:M:422:ARG:HB3	7:Z:1:DG:N2	2.14	0.63
2:C:692:GLU:CG	2:C:696:LYS:HE3	2.20	0.63
1:K:75:VAL:O	1:K:79:ILE:HG23	1.97	0.63
2:C:580:MET:HE2	2:C:902:ILE:HG12	1.79	0.63
1:L:123:MET:C	1:L:125:PRO:HD3	2.19	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:516:ARG:NH2	3:N:1068:LEU:HB2	2.14	0.63
2:M:252:LYS:HD3	2:M:296:GLY:HA2	1.81	0.63
3:N:1111:ASP:OD1	3:N:1203:LYS:HB2	1.99	0.63
3:N:607:LEU:HA	3:N:613:ARG:HB3	1.79	0.63
3:D:1083:ASP:O	3:D:1087:ARG:HD3	1.99	0.63
2:M:666:LEU:HG	2:M:668:LEU:HD11	1.80	0.63
2:C:580:MET:O	2:C:902:ILE:HA	1.98	0.63
3:N:23:TYR:CE1	3:N:89:ARG:HG2	2.34	0.63
1:K:88:ARG:NH2	1:K:90:LEU:HG	2.13	0.63
2:C:516:ARG:HE	3:D:1068:LEU:HD13	1.63	0.63
3:D:850:LEU:HD12	3:D:850:LEU:H	1.63	0.63
3:D:902:LEU:H	3:D:902:LEU:CD2	2.05	0.62
7:I:11:DG:C8	7:I:11:DG:O5'	2.52	0.62
3:N:1093:TYR:CE1	5:X:18:DC:C5'	2.82	0.62
3:D:33:ASN:HB2	3:D:40:GLU:OE1	1.99	0.62
3:D:1242:HIS:O	3:D:1250:ALA:HA	1.98	0.62
2:C:838:LYS:C	2:C:839:LEU:HD23	2.20	0.62
2:C:682:TYR:CE2	3:D:635:PRO:HG2	2.34	0.62
3:N:703:ASN:OD1	3:N:707:THR:HG23	1.99	0.62
3:N:750:PRO:HB2	3:N:756:GLN:HA	1.81	0.62
1:A:42:ARG:HB2	1:B:35:THR:CG2	2.29	0.62
2:C:557:ARG:NH2	2:C:879:ARG:HE	1.97	0.62
3:D:1003:VAL:HG13	3:D:1036:ARG:CD	2.28	0.62
3:D:542:ASP:HB2	3:D:600:LEU:HD23	1.80	0.62
2:M:987:ILE:HD11	3:N:946:GLY:HA2	1.81	0.62
2:C:831:ARG:NH2	2:C:1004:LYS:HZ2	1.96	0.62
3:N:785:ILE:HG23	3:N:938:GLY:HA3	1.81	0.62
1:L:89:PHE:HB3	1:L:94:LEU:HD13	1.81	0.62
2:C:893:ALA:O	2:C:897:LEU:HG	1.99	0.62
3:N:770:LEU:HD22	3:N:775:GLY:O	2.00	0.62
2:C:45:GLN:O	2:C:48:PHE:HB2	1.99	0.62
3:D:1463:LYS:O	3:D:1467:ILE:HG13	2.00	0.62
3:D:615:ARG:NH1	3:D:1096:ARG:CZ	2.61	0.62
1:A:43:ILE:HD13	1:B:32:PHE:CE2	2.34	0.62
3:N:98:PRO:O	3:N:458:ALA:HB3	1.99	0.62
3:D:1112:CYS:HB3	3:D:1195:GLN:CG	2.11	0.62
2:C:1046:ALA:C	3:D:1472:ILE:HD11	2.19	0.62
2:M:431:HIS:NE2	2:M:433:THR:OG1	2.32	0.62
3:D:908:LYS:HB2	3:D:1027:GLY:HA3	1.79	0.62
2:C:263:ASP:O	2:C:264:PRO:O	2.17	0.62
2:M:52:PHE:CD2	2:M:68:PHE:HB2	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:100:LEU:HB2	1:L:115:LEU:CD2	2.28	0.62
2:C:1102:LEU:O	3:D:5:VAL:HG13	1.99	0.62
1:B:206:THR:HG23	1:B:208:LEU:H	1.61	0.62
2:C:577:PRO:HG3	2:C:993:PHE:CE1	2.34	0.62
2:M:524:VAL:HG12	2:M:525:SER:N	2.14	0.62
3:D:148:GLU:HB3	3:D:151:GLN:CB	2.30	0.62
2:M:10:ARG:HA	2:M:10:ARG:HH11	1.64	0.62
2:M:683:ASN:HA	2:M:687:ALA:C	2.20	0.62
3:N:1483:PHE:HB2	4:O:77:GLU:OE1	1.99	0.62
3:N:700:VAL:HG22	3:N:718:PRO:CG	2.29	0.62
6:Y:4:G:H2'	6:Y:5:C:H6	1.63	0.62
6:Y:6:C:H3'	6:Y:7:G:H8	1.64	0.62
3:D:1033:GLN:HB2	3:D:1037:GLN:OE1	1.99	0.62
2:M:263:ASP:HB2	2:M:264:PRO:HD3	1.81	0.62
3:N:1367:HIS:O	3:N:1370:ILE:HG12	1.99	0.62
3:N:501:ALA:HB1	3:N:1453:ALA:CB	2.29	0.62
2:M:887:GLU:CD	2:M:992:MET:HG3	2.19	0.62
1:A:109:VAL:O	1:A:110:LYS:HD3	1.98	0.62
2:M:680:ASP:OD1	3:N:943:THR:HG21	1.98	0.62
3:D:474:GLU:O	3:D:478:LEU:HG	2.00	0.62
3:D:119:SER:O	3:D:121:THR:N	2.33	0.62
2:C:490:GLU:HA	2:C:493:ARG:HD3	1.82	0.62
3:N:1459:LEU:HA	3:N:1464:GLU:OE1	1.99	0.62
3:N:697:GLY:CA	3:N:717:GLN:CD	2.60	0.62
3:D:1206:GLY:HA3	3:D:1366:LYS:NZ	2.15	0.62
3:N:132:TYR:HD2	3:N:154:THR:CB	2.10	0.62
3:D:131:LYS:HG2	3:D:456:MET:HE1	1.82	0.62
2:C:836:GLY:HA2	3:D:725:SER:HB3	1.80	0.62
1:A:162:ILE:HG13	1:A:163:ASN:N	2.15	0.62
1:B:175:ARG:HB3	3:D:847:ASP:OD2	1.99	0.62
2:C:897:LEU:HD21	2:C:921:ALA:HA	1.82	0.62
1:K:101:LEU:HD13	1:K:114:PHE:CE1	2.35	0.62
3:N:799:LYS:HB3	3:N:826:PRO:HG2	1.81	0.62
2:C:1000:MET:C	2:C:1002:GLU:H	2.01	0.62
2:C:1032:PHE:CZ	2:C:1037:VAL:HA	2.35	0.62
2:C:1087:VAL:O	2:C:1091:GLU:HG3	2.00	0.62
2:C:470:PRO:HD3	2:C:485:TYR:CE2	2.35	0.62
3:D:56:TYR:O	3:D:80:VAL:HG21	1.99	0.62
3:D:704:ARG:HD3	3:D:738:ALA:HB2	1.82	0.62
3:N:1465:ASN:OD1	3:N:1473:PRO:CD	2.46	0.62
1:A:11:PHE:HA	1:A:25:LEU:HD12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1058:ASP:OD1	2:M:1084:SER:OG	2.16	0.62
2:M:15:LEU:HB2	2:M:586:ARG:HH12	1.65	0.62
3:D:530:VAL:HG13	6:H:5:C:OP1	1.99	0.62
3:N:119:SER:HB2	3:N:123:LEU:H	1.65	0.62
3:N:63:TYR:CE1	3:N:73:CYS:HA	2.35	0.62
3:D:639:LEU:HD12	3:D:640:HIS:N	2.15	0.62
2:C:393:GLN:HG2	6:H:10:G:O2'	1.99	0.62
2:M:274:ARG:NH2	2:M:284:ARG:HA	2.15	0.62
2:C:729:LEU:HD13	3:D:675:ARG:HD2	1.81	0.62
5:G:3:DC:H2'	5:G:4:DA:O5'	2.00	0.62
1:A:64:GLU:O	1:A:75:VAL:HB	1.98	0.62
3:D:109:PRO:HB3	3:D:494:LYS:HZ1	1.60	0.62
3:D:464:LEU:O	3:D:468:LEU:HG	1.99	0.62
5:G:5:DC:C2'	5:G:6:DT:O5'	2.46	0.62
3:N:1131:SER:HB2	3:N:1133:ARG:NH2	2.15	0.62
3:N:646:LYS:HD2	3:N:688:TRP:CE3	2.34	0.62
3:N:160:GLU:O	3:N:164:GLY:N	2.32	0.62
3:N:62:LYS:CG	3:N:75:ARG:HD2	2.23	0.62
1:L:25:LEU:O	1:L:28:LEU:HD21	1.99	0.62
2:C:90:TYR:HB2	2:C:128:ILE:HB	1.82	0.62
1:L:201:THR:HG21	1:L:205:VAL:HG23	1.80	0.62
1:B:99:LEU:HB3	1:B:114:PHE:CD2	2.35	0.62
2:C:708:TYR:CE2	2:C:793:PRO:HG2	2.35	0.62
3:D:487:ALA:HB2	5:G:7:DA:H2'	1.80	0.62
2:M:163:ILE:HD12	2:M:164:PRO:N	2.13	0.62
1:K:35:THR:O	1:K:39:PRO:HG2	1.99	0.62
2:C:286:SER:HB3	2:C:299:LYS:HE3	1.80	0.62
2:M:172:ILE:HD12	2:M:172:ILE:H	1.64	0.62
2:C:139:GLN:CD	2:C:418:LEU:HD22	2.20	0.62
2:C:524:VAL:HG12	2:C:525:SER:N	2.15	0.62
3:D:1149:LEU:HD22	3:D:1151:ARG:O	2.00	0.62
3:D:619:LEU:HB2	3:D:621:LYS:HZ3	1.65	0.62
2:M:395:LYS:HB3	2:M:397:GLU:OE2	2.00	0.62
3:N:486:ARG:HG2	3:N:1390:LEU:HD11	1.82	0.62
2:C:302:VAL:HG13	2:C:303:PHE:H	1.65	0.62
3:N:143:ASN:HA	3:N:161:LEU:HD12	1.81	0.62
2:M:679:PHE:O	2:M:680:ASP:O	2.18	0.62
3:D:1388:ARG:H	3:D:1388:ARG:HD2	1.65	0.62
2:C:41:ASN:HB3	2:C:45:GLN:OE1	1.99	0.62
2:C:328:LEU:HB2	2:C:433:THR:HB	1.80	0.62
3:N:1131:SER:HB2	3:N:1133:ARG:HH21	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1058:ASP:OD1	2:M:1084:SER:CB	2.47	0.62
3:N:834:THR:HG22	3:N:838:ARG:HH11	1.64	0.62
2:C:1046:ALA:O	3:D:1472:ILE:HD11	1.99	0.62
3:N:62:LYS:HG3	3:N:75:ARG:CD	2.23	0.62
2:C:988:VAL:HG11	3:D:949:ILE:O	1.98	0.62
4:O:70:THR:HG21	4:O:72:ARG:CZ	2.30	0.62
1:B:24:VAL:HG22	1:B:196:THR:HG22	1.81	0.62
1:L:58:ILE:HD13	1:L:140:MET:HB3	1.81	0.62
3:N:1323:GLN:N	3:N:1324:PRO:CD	2.63	0.62
2:C:650:ARG:HG2	2:C:653:ASP:HB2	1.82	0.62
3:D:1103:HIS:HA	3:D:1223:ILE:HD11	1.81	0.61
3:D:498:VAL:HG12	3:D:502:PHE:HE1	1.64	0.61
3:N:95:LEU:HB2	3:N:515:GLU:HA	1.82	0.61
2:C:634:GLY:HA3	2:C:705:ILE:O	2.00	0.61
3:D:1114:THR:HG22	3:D:1195:GLN:HB3	1.80	0.61
2:M:110:GLU:CG	2:M:369:PRO:HG3	2.30	0.61
1:A:188:GLN:HG3	1:A:189:ARG:N	2.15	0.61
1:K:7:LYS:HD2	1:K:186:LEU:CD2	2.29	0.61
2:M:300:ASP:C	2:M:302:VAL:H	2.02	0.61
2:M:140:ILE:HG22	2:M:333:ILE:HG13	1.82	0.61
2:C:945:ARG:O	2:C:949:LYS:HG3	2.00	0.61
2:M:643:VAL:HG13	2:M:647:GLN:CD	2.20	0.61
1:K:121:GLU:HG2	1:K:122:ILE:N	2.14	0.61
1:B:57:TYR:HB2	1:B:164:ALA:HB2	1.82	0.61
2:C:710:ILE:HD12	2:C:790:LEU:HB2	1.82	0.61
3:D:879:ARG:HH12	3:D:905:PRO:HD3	1.65	0.61
1:K:217:ILE:HG22	1:K:221:HIS:NE2	2.15	0.61
2:M:98:LEU:N	2:M:98:LEU:HD12	2.15	0.61
3:N:744:GLN:HG3	3:N:744:GLN:O	1.99	0.61
2:C:335:THR:O	2:C:339:LEU:HG	2.00	0.61
7:I:8:DG:H2"	7:I:9:DT:OP2	1.99	0.61
3:N:764:LEU:HD12	3:N:765:SER:N	2.15	0.61
2:M:1088:LEU:HA	2:M:1091:GLU:OE1	2.01	0.61
4:E:54:LEU:CG	4:E:58:PRO:HG2	2.26	0.61
2:M:586:ARG:HD2	2:M:590:ASP:OD2	2.00	0.61
2:M:211:LEU:HD12	2:M:211:LEU:O	2.00	0.61
3:N:939:PHE:O	3:N:942:SER:OG	2.16	0.61
2:M:647:GLN:O	2:M:649:VAL:HG13	2.00	0.61
3:D:1183:ILE:HG22	3:N:559:ALA:O	2.00	0.61
2:C:613:VAL:O	2:C:620:LEU:HA	2.00	0.61
2:M:1053:LEU:N	2:M:1053:LEU:HD23	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1050:GLN:O	2:M:1054:THR:HG23	2.00	0.61
3:N:1110:ALA:O	3:N:1111:ASP:C	2.38	0.61
3:N:457:GLY:O	3:N:459:GLU:N	2.34	0.61
3:D:1195:GLN:CG	3:D:1196:THR:H	2.11	0.61
2:C:265:ARG:HB3	2:C:267:TYR:CE2	2.35	0.61
3:N:132:TYR:HA	3:N:154:THR:HA	1.82	0.61
3:N:171:LEU:HG	3:N:195:VAL:HG23	1.80	0.61
1:L:7:LYS:HZ2	1:L:186:LEU:HD13	1.65	0.61
3:D:774:SER:HB2	3:D:776:GLU:HG2	1.82	0.61
2:C:172:ILE:H	2:C:172:ILE:HD12	1.64	0.61
3:N:952:ASP:HA	3:N:1062:ARG:NH2	2.14	0.61
2:C:492:ASP:HB3	2:C:518:LYS:HD2	1.81	0.61
2:M:911:GLU:HB3	2:M:912:PRO:HD3	1.82	0.61
2:C:714:ASP:OD2	2:C:820:ARG:HB2	2.00	0.61
2:C:52:PHE:CE1	2:C:68:PHE:CB	2.74	0.61
2:M:170:PRO:HD2	2:M:263:ASP:HB3	1.82	0.61
3:N:1379:VAL:HA	3:N:1420:LEU:HB2	1.82	0.61
3:N:502:PHE:CD1	3:N:1452:ILE:HG23	2.36	0.61
3:D:1109:GLU:OE1	3:D:1201:CYS:HB2	2.00	0.61
2:M:52:PHE:CE1	2:M:66:LEU:HG	2.33	0.61
2:C:516:ARG:CZ	3:D:1068:LEU:HD22	2.31	0.61
2:M:350:ARG:O	2:M:353:ARG:HB3	2.01	0.61
3:D:524:LEU:N	3:D:524:LEU:CD1	2.62	0.61
3:D:583:ASP:OD1	3:D:586:ARG:HG2	2.01	0.61
2:M:1052:MET:N	2:M:1052:MET:SD	2.72	0.61
3:N:625:TYR:CD2	3:N:652:LEU:O	2.54	0.61
3:D:833:GLU:O	3:D:834:THR:CG2	2.36	0.61
1:K:156:HIS:ND1	1:K:157:GLY:N	2.48	0.61
2:M:332:ARG:CZ	2:M:464:LEU:HD11	2.30	0.61
2:M:165:LEU:HA	2:M:166:PRO:O	1.99	0.61
2:M:569:VAL:HG21	2:M:702:SER:OG	2.01	0.61
3:D:983:LEU:CD1	3:D:988:ARG:HB2	2.30	0.61
2:C:1032:PHE:O	2:C:1033:GLY:O	2.17	0.61
2:C:1115:LEU:HD23	3:D:85:VAL:HA	1.83	0.61
3:D:87:ARG:HB2	3:D:524:LEU:HD11	1.81	0.61
3:D:93:ILE:HD12	3:D:517:VAL:HB	1.83	0.61
3:D:743:ASP:OD1	6:H:14:G:O2'	2.18	0.61
2:M:1046:ALA:HB1	3:N:1471:LEU:CD1	2.26	0.61
3:N:619:LEU:HD23	3:N:619:LEU:N	2.16	0.61
2:M:1056:LYS:HD3	3:N:623:VAL:HG13	1.82	0.61
1:A:43:ILE:O	1:A:47:SER:N	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:750:PRO:CB	3:D:756:GLN:HA	2.30	0.61
1:K:42:ARG:HH12	1:L:34:VAL:HB	1.64	0.61
3:D:131:LYS:HG3	3:D:568:ARG:HG2	1.80	0.61
3:N:1256:LEU:HG	3:N:1260:ILE:HD11	1.82	0.61
2:C:946:ARG:HB3	2:C:946:ARG:HH11	1.66	0.61
1:K:72:LYS:HE3	2:M:641:PRO:HB2	1.81	0.61
2:M:532:MET:CG	2:M:533:ASP:N	2.64	0.61
2:M:95:TYR:HD2	2:M:114:PHE:HB3	1.65	0.61
3:D:163:TYR:H	3:D:163:TYR:HD1	1.46	0.61
2:C:395:LYS:NZ	2:C:407:LYS:HZ3	1.99	0.61
3:D:101:HIS:O	3:D:105:VAL:HG23	2.01	0.61
3:D:86:ARG:O	3:D:521:PRO:HB3	1.99	0.61
2:M:394:PHE:CE1	2:M:632:ASN:HB3	2.36	0.61
3:N:716:PHE:O	3:N:718:PRO:HD3	2.01	0.61
2:M:143:SER:HB2	2:M:276:LYS:CE	2.28	0.61
3:D:1106:VAL:HG11	3:D:1474:ALA:CB	2.30	0.61
2:C:267:TYR:CG	2:C:272:ALA:HB1	2.36	0.61
2:C:678:PRO:O	3:D:943:THR:HA	2.01	0.61
2:M:36:PRO:HB2	2:M:70:GLU:HG2	1.82	0.61
2:C:239:PHE:CZ	2:C:250:ARG:HD2	2.35	0.61
2:M:68:PHE:HE1	2:M:96:ALA:HB1	1.64	0.61
2:M:418:LEU:HD12	2:M:418:LEU:N	2.16	0.61
3:D:1397:LYS:HZ2	3:D:1432:LYS:HE3	1.66	0.61
1:B:150:TYR:HE2	1:B:168:ASP:HB3	1.66	0.61
1:L:32:PHE:O	1:L:36:LEU:HG	2.00	0.61
2:M:16:PRO:O	2:M:18:LEU:HD12	2.00	0.61
2:M:613:VAL:O	2:M:620:LEU:HA	2.01	0.61
2:C:1090:LYS:HD2	3:D:90:MET:SD	2.41	0.61
3:N:711:LEU:HD21	3:N:768:ASN:HB3	1.81	0.61
3:N:661:MET:O	3:N:664:LYS:O	2.18	0.61
4:E:64:ALA:O	4:E:68:LEU:HD13	2.01	0.61
5:X:13:DA:C2'	5:X:14:DG:OP2	2.44	0.61
3:D:1110:ALA:O	3:D:1111:ASP:C	2.38	0.61
3:D:781:PRO:HB2	3:D:786:ILE:CG1	2.31	0.61
3:N:187:LYS:CE	3:N:199:LEU:HA	2.30	0.61
2:C:799:ILE:C	2:C:827:VAL:HG13	2.21	0.61
2:M:630:ARG:CD	2:M:634:GLY:HA2	2.30	0.61
2:M:66:LEU:HD12	2:M:99:GLN:O	2.01	0.61
4:O:34:GLY:CA	4:O:95:VAL:HB	2.29	0.61
2:M:20:GLU:HG2	2:M:21:ILE:HD12	1.82	0.61
3:N:105:VAL:HG22	3:N:112:ILE:HG21	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:897:LEU:HD22	2:C:920:GLN:HE22	1.66	0.61
1:K:221:HIS:HA	1:K:224:TYR:CD2	2.36	0.61
2:M:577:PRO:HG3	2:M:993:PHE:CE2	2.36	0.61
2:M:30:LEU:HD12	2:M:30:LEU:O	2.00	0.61
3:D:105:VAL:HA	3:D:112:ILE:CG2	2.31	0.61
3:D:1264:GLU:HB3	3:D:1266:ARG:HD2	1.82	0.61
3:D:521:PRO:HD2	3:D:524:LEU:HD22	1.82	0.61
7:I:4:DG:C2'	7:I:5:DC:OP2	2.44	0.61
2:C:1056:LYS:NZ	3:D:749:VAL:H	1.99	0.61
3:N:119:SER:HB2	3:N:123:LEU:CB	2.30	0.61
3:D:32:ILE:HG12	3:D:39:PRO:HA	1.81	0.61
3:D:774:SER:C	3:D:776:GLU:H	2.02	0.61
3:D:542:ASP:HA	3:D:545:ARG:HH21	1.64	0.61
3:D:937:TYR:O	3:D:941:PHE:HB2	2.01	0.61
1:A:56:VAL:HG13	1:A:142:VAL:HG12	1.83	0.61
2:M:226:VAL:HG13	2:M:227:PHE:CD1	2.36	0.61
3:D:119:SER:HB2	3:D:123:LEU:HB2	1.83	0.61
1:A:226:SER:O	1:A:228:PRO:HD3	1.99	0.61
3:D:1129:THR:HG23	3:D:1130:ARG:N	2.16	0.61
3:N:1177:ALA:O	3:N:1180:ALA:HB3	1.99	0.61
2:C:15:LEU:CD1	2:C:15:LEU:H	2.12	0.61
3:N:609:GLY:O	3:N:615:ARG:CB	2.49	0.61
3:N:774:SER:C	3:N:776:GLU:H	2.04	0.61
3:N:1103:HIS:CE1	3:N:1463:LYS:HB3	2.36	0.61
3:N:1220:ALA:O	3:N:1224:VAL:HG23	2.01	0.61
3:D:623:VAL:HG12	3:D:624:ASP:N	2.16	0.61
3:N:804:LEU:HD23	3:N:804:LEU:H	1.64	0.61
7:Z:12:DT:H2''	7:Z:13:DA:H8	1.63	0.61
1:L:89:PHE:HB3	1:L:94:LEU:CD1	2.31	0.61
1:B:101:LEU:HD11	1:B:113:ASP:HB3	1.83	0.61
2:C:604:ALA:HB3	2:C:612:VAL:O	2.01	0.61
2:M:775:ARG:NH1	2:M:782:ALA:HB1	2.16	0.61
3:D:1398:TRP:HA	3:D:1398:TRP:CE3	2.36	0.61
1:A:211:LEU:O	1:A:215:VAL:HG23	2.01	0.61
2:C:98:LEU:N	2:C:98:LEU:HD12	2.16	0.61
2:C:395:LYS:CE	2:C:407:LYS:HD2	2.31	0.60
2:C:409:ARG:HH12	2:C:444:PRO:CG	2.14	0.60
3:D:490:ALA:O	3:D:493:ARG:HG3	2.01	0.60
3:D:739:ASP:OD1	3:D:741:ASP:OD2	2.19	0.60
3:N:623:VAL:HG12	3:N:624:ASP:N	2.16	0.60
4:E:54:LEU:O	4:E:54:LEU:HD23	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:111:LYS:CG	3:N:1448:THR:HG22	2.31	0.60
5:X:15:DC:H6	5:X:15:DC:O5'	1.84	0.60
3:N:690:ALA:O	3:N:693:GLU:HB3	2.01	0.60
2:M:677:MET:HB3	2:M:987:ILE:HG21	1.82	0.60
2:M:604:ALA:HB3	2:M:612:VAL:O	2.02	0.60
2:M:606:VAL:HG22	2:M:645:VAL:HG13	1.83	0.60
3:D:1153:VAL:HG13	3:N:560:GLN:O	2.00	0.60
3:N:9:ARG:HH12	3:N:11:ALA:HB2	1.65	0.60
2:C:133:ASP:N	2:C:133:ASP:OD2	2.33	0.60
2:M:15:LEU:HB2	2:M:586:ARG:NH1	2.15	0.60
3:N:171:LEU:HG	3:N:195:VAL:CG2	2.31	0.60
3:D:713:ILE:O	3:D:714:GLN:HG3	2.01	0.60
3:N:845:ASN:O	3:N:848:GLU:HB2	2.00	0.60
1:A:106:PRO:HA	1:A:133:GLU:O	2.01	0.60
2:M:1075:ASP:CB	4:O:32:ARG:NH2	2.64	0.60
3:D:1161:GLU:HG2	3:D:1164:ARG:HB2	1.83	0.60
2:C:409:ARG:NH1	2:C:444:PRO:HG3	2.15	0.60
3:D:1378:TYR:OH	3:D:1431:THR:HA	2.00	0.60
3:D:739:ASP:O	3:D:743:ASP:OD1	2.18	0.60
2:C:50:GLU:HB2	2:C:266:ARG:CZ	2.31	0.60
3:D:994:GLN:HG2	3:D:1243:THR:O	2.01	0.60
2:C:690:ILE:CG1	2:C:691:SER:N	2.63	0.60
3:D:1109:GLU:OE1	3:D:1111:ASP:N	2.35	0.60
2:C:300:ASP:C	2:C:302:VAL:H	2.04	0.60
3:N:143:ASN:OD1	3:N:145:VAL:O	2.19	0.60
1:L:176:ARG:NH1	3:N:884:ARG:HD3	2.15	0.60
2:M:44:ILE:CG2	2:M:45:GLN:N	2.64	0.60
2:C:757:GLY:HA2	2:C:789:SER:HB3	1.82	0.60
3:D:84:ILE:HG13	3:D:85:VAL:N	2.16	0.60
3:N:919:PHE:HA	3:N:927:THR:OG1	2.02	0.60
2:M:1001:VAL:HG21	5:X:24:DC:H5'	1.83	0.60
3:N:1238:MET:C	3:N:1239:ARG:HG2	2.22	0.60
3:N:1033:GLN:CD	3:N:1240:THR:CG2	2.68	0.60
2:M:89:THR:CA	2:M:129:ILE:O	2.43	0.60
3:N:87:ARG:HG3	3:N:88:TYR:CD2	2.36	0.60
3:N:166:GLN:HB3	3:N:198:ARG:HB3	1.83	0.60
3:D:134:VAL:HG12	3:D:152:LEU:HB3	1.82	0.60
2:M:677:MET:HB3	2:M:987:ILE:HD13	1.83	0.60
1:A:112:ARG:HH21	1:A:125:PRO:CB	2.13	0.60
3:N:1061:PHE:CE1	3:N:1065:LEU:HD22	2.36	0.60
2:C:1016:ILE:CG1	2:C:1017:THR:H	2.12	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:395:LYS:HZ1	2:C:407:LYS:NZ	2.00	0.60
3:D:520:LEU:HD11	3:D:524:LEU:HD23	1.82	0.60
2:M:1031:ARG:HB3	5:X:22:DA:OP1	2.01	0.60
2:M:1036:GLU:OE1	2:M:1036:GLU:N	2.35	0.60
3:N:610:LYS:C	3:N:615:ARG:CG	2.52	0.60
2:M:264:PRO:CB	2:M:289:THR:HB	2.32	0.60
3:N:1453:ALA:O	3:N:1455:LYS:N	2.33	0.60
3:N:52:PRO:HG2	3:N:85:VAL:CG2	2.31	0.60
1:A:63:HIS:CE1	1:A:65:PHE:C	2.74	0.60
2:M:101:ILE:HG23	2:M:107:LEU:HD22	1.81	0.60
1:A:123:MET:C	1:A:125:PRO:HD3	2.22	0.60
4:O:36:LYS:HG2	4:O:95:VAL:CG2	2.31	0.60
1:K:50:GLY:HA3	1:K:173:PRO:HG3	1.83	0.60
1:B:78:ILE:O	1:B:82:LEU:HG	2.01	0.60
3:D:770:LEU:HD22	3:D:775:GLY:O	2.01	0.60
3:N:578:VAL:O	3:N:582:LEU:HG	2.00	0.60
3:D:1044:LEU:O	3:D:1045:MET:C	2.39	0.60
3:D:619:LEU:N	3:D:619:LEU:HD23	2.16	0.60
3:N:1216:SER:CB	4:O:15:SER:HA	2.31	0.60
3:N:1468:LEU:HD22	3:N:1470:ARG:CB	2.23	0.60
3:N:712:GLY:O	3:N:713:ILE:HG13	2.00	0.60
3:N:642:CYS:SG	3:N:716:PHE:HB2	2.42	0.60
2:M:874:LEU:CD1	3:N:783:ARG:HB2	2.32	0.60
5:X:26:DC:C2	5:X:27:DC:C5	2.89	0.60
3:N:501:ALA:HB1	3:N:1453:ALA:CA	2.31	0.60
7:Z:4:DG:C2'	7:Z:5:DC:OP2	2.37	0.60
3:D:907:GLU:HG2	3:D:908:LYS:H	1.66	0.60
3:N:526:PRO:O	3:N:537:THR:HA	2.00	0.60
3:D:641:GLN:HG2	3:D:717:GLN:NE2	2.15	0.60
2:M:690:ILE:HG22	2:M:851:LYS:O	2.00	0.60
2:M:305:PRO:HA	2:M:308:ARG:HB2	1.83	0.60
3:D:804:LEU:HD12	3:D:830:ALA:O	2.01	0.60
3:N:1422:MET:HE1	3:N:1427:SER:HA	1.84	0.60
1:B:170:VAL:HG11	3:D:848:GLU:OE2	2.01	0.60
1:B:30:ARG:NH1	1:B:30:ARG:HG2	2.12	0.60
2:C:850:ALA:HA	3:D:632:VAL:HG13	1.83	0.60
3:D:706:PRO:CG	5:G:19:DG:N2	2.64	0.60
2:M:875:GLY:HA2	3:N:1029:ARG:HH21	1.67	0.60
2:M:861:LEU:CD2	2:M:863:ASP:HB3	2.26	0.60
2:M:939:ARG:CA	2:M:939:ARG:HE	1.96	0.60
3:N:488:ARG:HG2	3:N:488:ARG:HH11	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1116:ASN:O	3:D:1193:THR:HB	2.01	0.60
1:L:7:LYS:HD3	1:L:7:LYS:O	2.01	0.60
3:D:853:VAL:HA	3:D:858:VAL:O	2.01	0.60
2:M:692:GLU:HB2	2:M:853:LEU:O	2.02	0.60
3:D:845:ASN:O	3:D:848:GLU:HB2	2.01	0.60
2:M:227:PHE:HD2	2:M:237:ARG:HD3	1.66	0.60
1:A:206:THR:HG23	1:A:208:LEU:H	1.67	0.60
3:D:1496:GLU:HA	3:D:1499:ARG:NE	2.15	0.60
3:N:682:ASP:O	3:N:683:ILE:HG13	2.01	0.60
3:D:1059:SER:HB2	3:D:1065:LEU:HD12	1.84	0.60
2:M:508:ILE:HD13	2:M:508:ILE:N	2.16	0.60
3:D:1448:THR:O	3:D:1452:ILE:CD1	2.50	0.60
3:D:522:PRO:CA	3:D:525:ARG:NH1	2.61	0.60
2:M:1060:ILE:O	2:M:1063:ARG:HG2	2.01	0.60
3:N:637:LEU:HD11	3:N:642:CYS:CA	2.31	0.60
3:N:730:PRO:HG2	3:N:731:LEU:H	1.67	0.60
2:M:147:TYR:CE2	2:M:330:ASN:HB3	2.37	0.60
2:M:457:ALA:HB3	2:M:538:GLN:HA	1.82	0.60
3:D:1003:VAL:HG13	3:D:1036:ARG:HG3	1.84	0.60
2:M:64:LEU:HD22	2:M:359:MET:CG	2.25	0.60
2:M:887:GLU:OE2	2:M:992:MET:HE2	2.01	0.60
3:D:1154:GLU:HB2	3:N:562:ALA:C	2.22	0.60
3:N:1377:LYS:HE2	3:N:1394:VAL:HG22	1.82	0.60
3:D:1353:GLN:O	3:D:1357:ARG:HG3	2.01	0.60
1:L:48:ILE:HD13	1:L:210:ALA:HB1	1.84	0.60
2:M:397:GLU:CD	2:M:632:ASN:HB2	2.22	0.60
3:N:637:LEU:HD21	3:N:642:CYS:HA	1.84	0.60
3:N:732:VAL:HB	3:N:736:PHE:CE1	2.37	0.60
3:N:704:ARG:CG	3:N:736:PHE:HB3	2.31	0.60
3:N:1111:ASP:CG	3:N:1203:LYS:HD2	2.22	0.60
3:N:646:LYS:CD	3:N:688:TRP:CH2	2.85	0.60
3:N:98:PRO:HA	3:N:514:LEU:O	2.01	0.60
3:N:1447:LEU:HD12	3:N:1447:LEU:N	2.17	0.60
2:M:841:ASN:ND2	2:M:884:GLN:HB3	2.16	0.60
2:M:22:GLN:OE1	2:M:336:VAL:HG21	2.02	0.60
4:O:32:ARG:NH1	4:O:32:ARG:HB2	2.17	0.60
2:M:426:ASP:HA	2:M:429:ASP:OD2	2.02	0.60
3:N:1462:LEU:HD22	3:N:1472:ILE:HG22	1.83	0.60
3:N:704:ARG:CB	3:N:736:PHE:HB3	2.32	0.60
2:M:1097:LEU:H	2:M:1097:LEU:CD2	2.11	0.60
3:N:1382:THR:HG21	3:N:1418:LYS:HE3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:423:ALA:HB2	7:Z:1:DG:O4'	2.02	0.60
3:N:1301:LYS:HG3	3:N:1303:TYR:CE1	2.37	0.60
3:D:1348:LEU:O	3:D:1352:ILE:HG13	2.01	0.60
3:D:776:GLU:HB3	3:D:912:LYS:HE2	1.84	0.60
2:M:843:HIS:CE1	2:M:884:GLN:CA	2.84	0.60
2:M:492:ASP:HB3	2:M:518:LYS:CD	2.29	0.60
2:M:334:ARG:HA	2:M:338:GLU:OE2	2.01	0.60
2:M:266:ARG:HA	2:M:288:ARG:CD	2.31	0.60
2:M:269:LEU:HG	2:M:288:ARG:HA	1.83	0.60
2:C:384:GLU:O	2:C:388:ARG:HB2	2.02	0.60
3:D:817:GLU:O	3:D:821:VAL:HG23	2.02	0.60
1:L:115:LEU:O	1:L:115:LEU:HD12	2.01	0.60
2:C:751:PRO:HB3	2:C:794:PRO:HA	1.83	0.60
2:C:328:LEU:C	2:C:330:ASN:H	2.05	0.59
3:D:108:VAL:HB	3:D:109:PRO:CD	2.25	0.59
3:D:1442:ASN:C	3:D:1443:THR:HG23	2.22	0.59
3:D:613:ARG:HA	3:D:613:ARG:NE	2.14	0.59
3:D:704:ARG:HH11	3:D:738:ALA:CB	2.13	0.59
2:M:260:LEU:HD12	2:M:261:ILE:H	1.67	0.59
4:E:30:LEU:HB3	4:E:35:PHE:CE1	2.37	0.59
3:N:646:LYS:HD2	3:N:688:TRP:CZ3	2.37	0.59
2:C:267:TYR:O	2:C:268:ASP:C	2.39	0.59
3:D:918:ALA:CB	3:D:927:THR:HG23	2.31	0.59
3:N:539:ASP:HB3	3:N:600:LEU:HB3	1.84	0.59
2:C:56:GLU:HB3	2:C:359:MET:SD	2.43	0.59
2:C:1045:ALA:HB2	3:D:763:MET:SD	2.42	0.59
2:M:52:PHE:O	2:M:54:ILE:N	2.35	0.59
2:M:274:ARG:HG2	2:M:285:LEU:HD13	1.83	0.59
2:C:140:ILE:HG23	2:C:410:ILE:HD11	1.84	0.59
2:M:735:ARG:NH1	2:M:735:ARG:HG2	2.14	0.59
1:L:56:VAL:HG12	1:L:57:TYR:N	2.17	0.59
1:B:57:TYR:CE1	1:B:163:ASN:HB2	2.35	0.59
2:M:498:GLN:HG2	2:M:516:ARG:HH21	1.67	0.59
2:C:1000:MET:C	2:C:1002:GLU:N	2.55	0.59
3:N:1136:LYS:HB2	3:N:1139:ASP:OD2	2.02	0.59
3:D:577:ALA:O	3:D:580:ALA:HB3	2.01	0.59
3:D:584:ASN:ND2	3:D:590:PRO:HD2	2.17	0.59
2:M:825:VAL:HG12	2:M:827:VAL:HG23	1.83	0.59
3:D:1252:ILE:O	3:D:1252:ILE:HG23	2.02	0.59
5:G:20:DC:H2''	5:G:21:DG:C5'	2.30	0.59
2:C:1012:PRO:HD3	2:C:1026:GLN:HG2	1.82	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1027:GLY:O	3:D:1028:ALA:O	2.20	0.59
2:M:1115:LEU:CD1	2:M:1115:LEU:H	2.06	0.59
3:D:1168:MET:HG3	3:D:1172:HIS:NE2	2.16	0.59
2:C:1060:ILE:O	2:C:1063:ARG:HG2	2.02	0.59
3:N:1167:SER:O	3:N:1171:VAL:HG23	2.02	0.59
2:M:950:LEU:HB3	2:M:952:LEU:HD23	1.83	0.59
3:N:1496:GLU:O	3:N:1500:LYS:HG3	2.02	0.59
2:C:1092:LEU:O	2:C:1097:LEU:O	2.20	0.59
2:C:1110:ASP:OD2	2:C:1112:PHE:O	2.19	0.59
2:M:684:PHE:CE2	2:M:685:GLU:HB2	2.37	0.59
3:N:752:SER:HB3	3:N:755:ALA:HB3	1.84	0.59
4:O:13:VAL:HG12	4:O:15:SER:H	1.66	0.59
3:N:800:LYS:HD2	3:N:804:LEU:HD13	1.85	0.59
3:N:1446:VAL:CG1	3:N:1447:LEU:HD12	2.32	0.59
5:X:9:DC:H2"	5:X:10:DA:H8	1.67	0.59
2:C:304:LEU:HD23	2:C:304:LEU:H	1.67	0.59
2:C:296:GLY:O	2:C:298:PHE:CZ	2.55	0.59
2:M:474:VAL:HG23	2:M:478:VAL:O	2.02	0.59
2:M:172:ILE:HD12	2:M:172:ILE:N	2.18	0.59
1:L:211:LEU:O	1:L:215:VAL:HG13	2.02	0.59
2:C:559:LEU:CD2	2:C:563:ASN:OD1	2.50	0.59
2:C:516:ARG:NE	3:D:1068:LEU:HD13	2.17	0.59
3:D:879:ARG:NH2	3:D:903:ASP:O	2.35	0.59
4:E:9:LEU:HD11	4:E:69:LEU:HD12	1.84	0.59
3:D:1041:LEU:HD12	3:D:1042:ARG:CZ	2.33	0.59
2:C:1016:ILE:CG1	2:C:1017:THR:N	2.66	0.59
3:D:1256:LEU:HD21	3:D:1260:ILE:HD11	1.84	0.59
1:A:46:SER:CB	2:C:856:GLU:OE2	2.50	0.59
3:N:1207:TYR:O	3:N:1215:VAL:HG23	2.02	0.59
2:C:50:GLU:CG	2:C:266:ARG:CD	2.73	0.59
3:D:33:ASN:HB2	3:D:40:GLU:CD	2.23	0.59
3:N:166:GLN:HA	3:N:198:ARG:HG2	1.84	0.59
2:M:876:VAL:H	2:M:877:PRO:HD2	1.66	0.59
4:E:4:PRO:HG2	4:E:66:LYS:NZ	2.17	0.59
2:M:584:GLU:CB	2:M:666:LEU:HB3	2.33	0.59
2:M:69:LEU:HD12	2:M:97:ARG:HB3	1.83	0.59
2:M:211:LEU:HD13	2:M:308:ARG:HA	1.85	0.59
2:M:333:ILE:N	2:M:333:ILE:HD12	2.17	0.59
2:C:650:ARG:CG	2:C:653:ASP:HB2	2.32	0.59
3:D:984:THR:OG1	3:D:985:ASP:N	2.36	0.59
3:N:683:ILE:HG22	3:N:684:LYS:N	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:881:ASN:O	2:C:884:GLN:HG3	2.02	0.59
3:D:1100:ASP:HA	3:D:1463:LYS:HZ1	1.66	0.59
5:G:15:DC:H1'	5:G:16:DT:H5'	1.84	0.59
7:I:3:DA:H2"	7:I:4:DG:O5'	2.03	0.59
2:M:404:LEU:HA	2:M:407:LYS:HD3	1.81	0.59
3:N:1209:LEU:HD21	4:O:16:LYS:HE3	1.84	0.59
6:Y:11:C:O5'	6:Y:11:C:H6	1.85	0.59
3:N:1189:ARG:HD2	3:N:1204:CYS:HA	1.83	0.59
2:M:328:LEU:HB2	2:M:488:ALA:HB2	1.83	0.59
3:D:862:ASP:O	3:D:877:PRO:HD3	2.03	0.59
3:N:792:ILE:HG23	3:N:793:THR:HG23	1.84	0.59
3:N:939:PHE:O	3:N:943:THR:HG23	2.01	0.59
2:C:110:GLU:OE1	2:C:113:VAL:HG22	2.02	0.59
1:B:58:ILE:CD1	1:B:140:MET:HB3	2.31	0.59
2:M:184:MET:O	2:M:190:LYS:HA	2.01	0.59
1:K:92:PRO:HG3	1:K:146:ARG:NH2	2.17	0.59
1:A:117:VAL:HB	1:A:120:VAL:CG1	2.33	0.59
3:D:1045:MET:CE	3:D:1076:GLY:CA	2.74	0.59
2:C:395:LYS:HZ1	2:C:407:LYS:HZ3	1.48	0.59
2:C:490:GLU:HA	2:C:493:ARG:CD	2.32	0.59
3:D:1223:ILE:HD12	3:D:1223:ILE:N	2.17	0.59
3:D:505:SER:HB3	3:D:1454:GLY:H	1.67	0.59
3:D:989:TYR:CZ	3:D:1051:GLU:CG	2.76	0.59
2:C:824:ARG:HD2	2:C:826:TYR:OH	2.03	0.59
3:N:1330:ILE:HD13	3:N:1347:TYR:HE1	1.67	0.59
2:C:170:PRO:HD2	2:C:263:ASP:HB3	1.83	0.59
3:N:199:LEU:HD23	3:N:200:ASP:N	2.17	0.59
2:M:715:THR:HG23	2:M:720:GLU:OE2	2.01	0.59
3:N:900:ILE:HG13	3:N:900:ILE:O	2.01	0.59
2:C:796:GLU:HB3	2:C:829:GLN:OE1	2.02	0.59
1:A:110:LYS:O	1:A:111:ALA:C	2.41	0.59
2:C:946:ARG:HB3	2:C:946:ARG:NH1	2.18	0.59
3:D:1154:GLU:N	3:N:561:GLY:HA3	2.18	0.59
2:M:775:ARG:HD2	2:M:782:ALA:CB	2.33	0.59
3:N:1175:ILE:O	3:N:1179:GLU:HG3	2.02	0.59
3:D:1431:THR:HG23	3:D:1433:SER:O	2.02	0.59
3:D:465:LEU:HD13	3:D:510:GLU:HA	1.83	0.59
2:C:630:ARG:NE	2:C:634:GLY:HA2	2.18	0.59
3:N:653:PHE:CZ	3:N:749:VAL:HG11	2.38	0.59
2:M:8:ARG:N	2:M:907:ASP:OD2	2.35	0.59
2:C:106:GLY:O	2:C:107:LEU:HD23	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:9:C:H2'	6:H:10:G:C1'	2.33	0.59
2:M:160:ALA:HB3	2:M:174:LEU:HB2	1.84	0.59
2:M:605:LYS:HD3	2:M:610:ARG:HH12	1.68	0.59
5:G:2:DT:C2'	5:G:3:DC:C5	2.85	0.59
2:M:10:ARG:CA	2:M:10:ARG:HH11	2.14	0.59
1:K:24:VAL:HG22	1:K:196:THR:HG22	1.84	0.59
3:N:907:GLU:HG2	3:N:908:LYS:N	2.17	0.59
2:C:408:ARG:HH21	2:C:455:LEU:HD12	1.67	0.59
2:C:455:LEU:HD13	2:C:459:ALA:HB3	1.85	0.59
3:D:23:TYR:O	3:D:49:ILE:HG23	2.02	0.59
3:N:750:PRO:HB3	3:N:755:ALA:O	2.03	0.59
2:M:143:SER:O	2:M:145:GLY:N	2.36	0.59
3:N:1370:ILE:O	3:N:1374:GLN:HG2	2.03	0.59
2:M:1082:PRO:O	2:M:1085:PHE:HB3	2.02	0.59
2:M:1089:VAL:O	2:M:1092:LEU:HB2	2.02	0.59
3:D:695:ILE:HD11	3:D:718:PRO:HB2	1.85	0.59
7:Z:12:DT:H71	7:Z:12:DT:OP2	2.02	0.59
2:M:753:ASP:HB2	2:M:792:VAL:CG2	2.32	0.59
2:M:906:PHE:CG	3:N:1067:VAL:HG22	2.37	0.59
3:D:484:PRO:HB3	3:D:488:ARG:NE	2.18	0.59
2:C:752:GLY:HA3	3:D:679:ARG:HA	1.85	0.59
3:D:1442:ASN:ND2	5:G:16:DT:OP1	2.35	0.59
2:M:1048:THR:OG1	3:N:755:ALA:HB1	2.03	0.59
2:M:267:TYR:O	2:M:268:ASP:C	2.40	0.59
3:N:135:LEU:HD11	3:N:147:VAL:HG23	1.85	0.59
3:N:137:PRO:HD2	3:N:453:ASP:CG	2.23	0.59
2:C:130:ASN:HD21	2:C:383:ARG:NH2	2.01	0.59
3:D:564:GLU:HA	3:D:567:ILE:HD12	1.83	0.59
2:M:869:VAL:HG22	2:M:870:ILE:N	2.17	0.59
3:N:896:ALA:O	3:N:900:ILE:HG23	2.03	0.59
3:N:785:ILE:CD1	3:N:939:PHE:CE2	2.86	0.59
3:D:1146:GLY:CA	3:D:1207:TYR:HB2	2.32	0.59
2:C:582:GLY:C	2:C:583:LEU:HD12	2.23	0.59
1:A:87:VAL:HG21	1:A:144:VAL:CG1	2.33	0.59
3:N:112:ILE:HD11	3:N:116:LEU:HD12	1.83	0.59
2:C:1093:GLN:O	3:D:21:TRP:HZ3	1.86	0.59
5:G:17:DA:OP1	5:G:17:DA:O4'	2.21	0.59
3:D:1096:ARG:HH12	5:G:18:DC:P	2.25	0.59
2:M:1092:LEU:HB3	2:M:1099:VAL:HG23	1.85	0.59
2:C:1008:ARG:HG2	2:C:1008:ARG:HH11	1.66	0.59
3:N:1446:VAL:HG12	3:N:1447:LEU:HD12	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1106:VAL:HG12	3:D:1107:VAL:N	2.18	0.59
2:C:679:PHE:O	2:C:680:ASP:O	2.20	0.59
2:M:889:HIS:CE1	2:M:988:VAL:CG2	2.81	0.59
3:N:792:ILE:HD11	3:N:881:LEU:HB3	1.85	0.59
3:N:33:ASN:HB2	3:N:40:GLU:OE1	2.02	0.59
2:M:304:LEU:CG	2:M:305:PRO:HD3	2.33	0.59
2:M:504:GLU:HB2	2:M:507:ARG:HB3	1.85	0.59
3:D:1397:LYS:NZ	3:D:1432:LYS:HE3	2.18	0.59
1:A:179:PHE:HB2	1:A:195:LEU:HD11	1.85	0.59
2:M:340:MET:O	2:M:340:MET:SD	2.61	0.59
2:C:541:SER:OG	2:C:542:VAL:N	2.36	0.58
3:D:1468:LEU:HD22	3:D:1470:ARG:HG3	1.85	0.58
3:D:19:ARG:HG3	3:D:19:ARG:HH11	1.67	0.58
2:C:269:LEU:HD12	2:C:288:ARG:HG3	1.84	0.58
3:N:581:LEU:CD2	3:N:581:LEU:H	2.15	0.58
3:N:583:ASP:OD1	3:N:586:ARG:HG2	2.03	0.58
5:X:12:DA:C2	5:X:13:DA:C4	2.91	0.58
6:H:6:C:C5	6:H:7:G:N7	2.71	0.58
3:D:1347:TYR:CE2	3:D:1351:GLU:HG2	2.38	0.58
3:N:671:LYS:O	3:N:675:ARG:HG3	2.03	0.58
2:M:680:ASP:N	3:N:943:THR:HG22	2.18	0.58
2:C:753:ASP:O	2:C:792:VAL:HG23	2.02	0.58
2:C:346:VAL:O	2:C:350:ARG:HG3	2.03	0.58
3:D:1492:LEU:HD12	3:D:1493:LYS:HE3	1.85	0.58
2:C:2:GLU:O	2:C:3:ILE:HD13	2.03	0.58
2:C:647:GLN:O	2:C:649:VAL:HG13	2.04	0.58
1:L:206:THR:HG23	1:L:208:LEU:H	1.67	0.58
3:D:741:ASP:O	6:H:14:G:C5'	2.50	0.58
2:M:684:PHE:CZ	2:M:685:GLU:HB2	2.38	0.58
3:D:1033:GLN:O	3:D:1037:GLN:CA	2.51	0.58
3:N:139:GLY:O	3:N:147:VAL:HB	2.04	0.58
2:C:272:ALA:O	2:C:276:LYS:HE3	2.03	0.58
2:C:290:LEU:H	2:C:290:LEU:HD23	1.67	0.58
3:D:1236:LEU:HD23	3:D:1236:LEU:O	2.03	0.58
2:C:999:HIS:ND1	2:C:1003:ASP:HB2	2.18	0.58
2:C:496:ILE:N	2:C:496:ILE:HD12	2.18	0.58
2:C:555:ALA:O	2:C:558:ALA:HB3	2.03	0.58
2:C:1034:GLU:HB3	3:D:619:LEU:HB3	1.86	0.58
2:C:682:TYR:O	2:C:850:ALA:HB3	2.02	0.58
2:M:1013:TYR:O	6:Y:4:G:O6	2.21	0.58
2:M:1022:GLY:HA3	2:M:1026:GLN:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:619:LEU:HD12	3:N:621:LYS:NZ	2.18	0.58
2:M:170:PRO:HG2	2:M:258:TYR:CE2	2.38	0.58
3:N:1114:THR:O	3:N:1114:THR:CG2	2.50	0.58
2:C:1010:THR:HA	3:D:624:ASP:OD1	2.03	0.58
3:D:33:ASN:HB2	3:D:40:GLU:OE2	2.04	0.58
2:M:873:PRO:O	2:M:877:PRO:HD2	2.03	0.58
3:N:465:LEU:HD22	3:N:510:GLU:CA	2.32	0.58
1:A:177:VAL:O	2:C:864:GLY:HA2	2.03	0.58
2:C:1063:ARG:HG3	2:C:1064:ASN:N	2.17	0.58
3:D:473:LEU:N	3:D:473:LEU:HD12	2.19	0.58
2:M:430:VAL:CG1	3:N:1075:HIS:HA	2.33	0.58
2:C:756:VAL:HB	2:C:790:LEU:HB3	1.86	0.58
3:N:686:GLU:HA	3:N:689:ASP:OD2	2.02	0.58
2:M:510:ALA:HB3	2:M:513:VAL:CG2	2.32	0.58
2:C:345:ARG:HA	2:C:348:LEU:HB2	1.85	0.58
2:C:1039:ALA:HA	3:D:1227:GLN:OE1	2.03	0.58
2:C:431:HIS:CG	2:C:432:ARG:N	2.71	0.58
3:D:1266:ARG:HH22	7:I:4:DG:H4'	1.68	0.58
3:N:641:GLN:HB3	3:N:717:GLN:O	2.04	0.58
3:N:618:LEU:CD1	3:N:1467:ILE:HD11	2.32	0.58
2:C:1056:LYS:HE2	3:D:625:TYR:HB2	1.86	0.58
3:D:917:GLN:HA	3:D:920:LEU:HD12	1.84	0.58
3:N:1293:PHE:CD2	3:N:1300:SER:HB2	2.39	0.58
2:C:302:VAL:C	2:C:305:PRO:HD2	2.23	0.58
2:M:762:LYS:HD3	2:M:784:ASP:O	2.03	0.58
3:N:1422:MET:CE	3:N:1427:SER:HA	2.34	0.58
3:D:1115:THR:HG22	3:D:1151:ARG:HH21	1.67	0.58
4:E:50:THR:HB	4:E:51:LEU:HD23	1.85	0.58
2:M:1021:LEU:HD22	6:Y:5:C:H2'	1.86	0.58
2:M:1098:ASP:HB2	3:N:21:TRP:HZ2	1.68	0.58
3:D:152:LEU:HD23	3:D:152:LEU:H	1.66	0.58
2:M:676:ILE:O	2:M:676:ILE:HG12	2.04	0.58
2:M:108:ILE:HD11	2:M:365:ASP:OD1	2.03	0.58
2:C:1090:LYS:HE2	2:C:1112:PHE:CE1	2.38	0.58
2:C:436:GLY:H	2:C:539:VAL:HG13	1.69	0.58
3:D:1465:ASN:ND2	3:D:1470:ARG:CB	2.66	0.58
3:D:619:LEU:HD12	3:D:621:LYS:NZ	2.18	0.58
2:M:493:ARG:HB2	2:M:494:TYR:CE1	2.38	0.58
3:N:662:GLU:O	3:N:664:LYS:O	2.21	0.58
3:N:1389:LEU:CD1	3:N:1390:LEU:H	2.15	0.58
3:D:1190:SER:OG	3:D:1369:GLU:OE2	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1194:CYS:SG	3:D:1200:VAL:HA	2.44	0.58
2:M:791:ARG:HH11	2:M:791:ARG:HB3	1.68	0.58
2:M:752:GLY:H	2:M:792:VAL:HB	1.68	0.58
2:M:570:PRO:HD2	2:M:635:THR:CG2	2.33	0.58
2:M:479:VAL:CG2	2:M:506:ASN:HA	2.33	0.58
1:A:88:ARG:HG2	1:A:88:ARG:NH1	2.15	0.58
2:C:151:ASP:OD2	2:C:175:GLU:OE2	2.22	0.58
3:N:412:GLY:O	3:N:434:ARG:HD3	2.04	0.58
2:C:944:LEU:O	2:C:948:GLU:HG3	2.03	0.58
2:C:328:LEU:HD22	2:C:433:THR:C	2.23	0.58
3:D:1377:LYS:HE2	3:D:1378:TYR:CZ	2.39	0.58
3:D:1440:PHE:O	3:D:1441:GLN:CB	2.52	0.58
3:D:486:ARG:HA	3:D:489:ARG:CG	2.32	0.58
2:C:423:ALA:HB2	7:I:1:DG:H5"	1.84	0.58
1:A:38:ASN:O	1:A:42:ARG:HG3	2.03	0.58
3:D:1191:PRO:C	3:D:1373:ARG:HH11	2.07	0.58
4:O:54:LEU:HG	4:O:58:PRO:HG2	1.84	0.58
2:C:695:LEU:HD21	2:C:832:LYS:HG2	1.85	0.58
2:M:439:CYS:SG	2:M:541:SER:N	2.71	0.58
1:L:36:LEU:O	1:L:39:PRO:HD2	2.04	0.58
2:C:94:LEU:HD12	2:C:95:TYR:N	2.19	0.58
3:D:701:LEU:N	3:D:701:LEU:HD12	2.17	0.58
2:M:18:LEU:H	2:M:18:LEU:HD12	1.68	0.58
3:D:1371:VAL:O	3:D:1374:GLN:HB2	2.04	0.58
2:C:422:ARG:O	7:I:1:DG:C4	2.57	0.58
4:O:61:VAL:O	4:O:65:MET:HG3	2.03	0.58
6:Y:5:C:C2'	6:Y:5:C:O2	2.48	0.58
2:M:493:ARG:NH2	2:M:494:TYR:OH	2.37	0.58
2:M:263:ASP:C	2:M:264:PRO:O	2.42	0.58
2:C:1056:LYS:HB3	3:D:623:VAL:HG13	1.86	0.58
3:N:489:ARG:NH2	3:N:1389:LEU:HD21	2.19	0.58
3:N:1440:PHE:O	3:N:1441:GLN:HB3	2.04	0.58
2:M:88:LEU:O	2:M:129:ILE:O	2.20	0.58
2:C:211:LEU:CD1	2:C:308:ARG:HA	2.32	0.58
3:D:41:ARG:HD3	3:D:43:GLY:N	2.19	0.58
3:D:1213:ARG:NH1	4:E:11:GLY:HA2	2.18	0.58
3:N:1236:LEU:O	3:N:1237:THR:OG1	2.21	0.58
2:M:1075:ASP:HB2	4:O:32:ARG:NH2	2.19	0.58
3:N:412:GLY:HA2	3:N:434:ARG:NE	2.19	0.58
1:L:153:ALA:HA	1:L:156:HIS:CE1	2.38	0.58
2:C:502:PRO:HB2	2:C:509:ALA:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1101:THR:HB	2:M:1109:VAL:HB	1.86	0.58
2:C:1022:GLY:HA3	2:C:1026:GLN:O	2.03	0.58
3:D:1147:ARG:NH2	3:D:1369:GLU:OE2	2.36	0.58
3:D:641:GLN:HA	3:D:717:GLN:H	1.68	0.58
2:M:141:HIS:HD2	2:M:332:ARG:O	1.87	0.58
2:C:185:LYS:HD3	2:C:190:LYS:NZ	2.18	0.58
3:N:1403:LEU:O	3:N:1407:LEU:HB2	2.03	0.58
1:B:179:PHE:N	1:B:179:PHE:CD2	2.72	0.58
1:B:153:ALA:HA	1:B:156:HIS:CE1	2.38	0.58
3:D:1433:SER:HB2	3:D:1457:ASP:OD1	2.04	0.58
2:M:872:ASN:OD1	2:M:874:LEU:HB2	2.03	0.58
1:A:43:ILE:HG23	1:A:47:SER:CB	2.34	0.58
2:M:113:VAL:HG12	2:M:115:LEU:HD23	1.86	0.58
3:N:58:CYS:SG	3:N:62:LYS:N	2.77	0.58
2:C:683:ASN:HA	2:C:687:ALA:O	2.03	0.58
2:M:677:MET:HB3	3:N:948:THR:CG2	2.33	0.58
2:M:871:LEU:O	2:M:873:PRO:HD3	2.04	0.58
3:D:918:ALA:HB1	3:D:927:THR:HG23	1.84	0.58
3:N:843:PHE:HB2	3:N:866:VAL:CG2	2.29	0.58
1:L:25:LEU:O	1:L:25:LEU:HD23	2.04	0.58
2:C:54:ILE:HG12	2:C:64:LEU:HD23	1.86	0.58
6:H:9:C:C2'	6:H:10:G:O4'	2.47	0.58
2:C:919:ALA:CA	2:C:968:LEU:HD21	2.34	0.58
2:C:922:PHE:HB3	2:C:964:LYS:HZ2	1.68	0.58
2:C:110:GLU:CG	2:C:369:PRO:HG3	2.33	0.58
2:C:953:VAL:HG11	2:C:962:GLN:HB3	1.86	0.58
1:K:106:PRO:HA	1:K:133:GLU:O	2.04	0.58
3:D:524:LEU:O	3:D:526:PRO:HD3	2.04	0.57
3:N:695:ILE:O	3:N:698:LYS:N	2.37	0.57
3:N:918:ALA:CB	3:N:927:THR:HG23	2.33	0.57
2:C:694:LEU:O	2:C:699:PHE:HB2	2.03	0.57
2:C:896:PHE:O	2:C:924:VAL:HG11	2.03	0.57
2:C:688:ILE:HG22	2:C:689:VAL:N	2.19	0.57
3:D:1019:PRO:O	3:D:1023:MET:HB2	2.03	0.57
3:D:1087:ARG:NE	3:D:1236:LEU:CD1	2.67	0.57
2:M:713:ARG:HB3	2:M:720:GLU:OE2	2.03	0.57
2:M:101:ILE:HD12	2:M:107:LEU:HD22	1.84	0.57
2:M:984:GLU:HG2	3:N:944:THR:O	2.04	0.57
2:M:189:ARG:HD3	2:M:190:LYS:N	2.18	0.57
3:N:659:LYS:O	3:N:663:GLU:HG2	2.04	0.57
2:C:136:ILE:HD13	2:C:392:SER:OG	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:47:GLU:HB3	3:D:51:GLY:O	2.05	0.57
3:D:526:PRO:HD2	3:D:538:SER:HB2	1.85	0.57
2:M:1031:ARG:HG2	5:X:21:DG:H5"	1.85	0.57
2:C:976:ASP:OD1	2:C:978:ARG:HB2	2.04	0.57
3:N:807:ALA:HA	3:N:833:GLU:HG3	1.86	0.57
3:N:814:ALA:CB	3:N:818:ARG:HH21	2.00	0.57
3:N:453:ASP:HB3	3:N:455:ARG:NH2	2.08	0.57
2:M:971:LYS:HG2	2:M:988:VAL:HG12	1.86	0.57
2:M:706:GLU:CG	2:M:708:TYR:CZ	2.82	0.57
3:N:860:LEU:O	3:N:877:PRO:HD2	2.04	0.57
1:A:86:VAL:HG23	1:A:204:SER:HB2	1.87	0.57
2:C:498:GLN:HE22	3:D:1067:VAL:HG11	1.69	0.57
1:L:101:LEU:HD12	1:L:113:ASP:C	2.25	0.57
1:A:70:GLY:H	2:C:607:ASP:CG	2.06	0.57
2:C:1067:TYR:O	2:C:1071:ILE:HG12	2.03	0.57
3:D:1093:TYR:OH	3:D:1440:PHE:CE2	2.56	0.57
3:D:45:PHE:CD1	3:D:522:PRO:HB3	2.39	0.57
2:C:1095:LEU:CD2	3:D:603:LEU:HD13	2.34	0.57
2:M:683:ASN:HD22	2:M:683:ASN:C	2.05	0.57
3:N:703:ASN:CG	3:N:713:ILE:HD11	2.24	0.57
1:A:42:ARG:NH2	1:B:34:VAL:HB	2.19	0.57
2:M:1083:GLU:O	2:M:1087:VAL:HG12	2.04	0.57
1:L:34:VAL:HG22	1:L:181:VAL:HG21	1.85	0.57
2:C:1046:ALA:CA	3:D:1472:ILE:HD11	2.34	0.57
2:M:328:LEU:CD1	2:M:433:THR:HB	2.28	0.57
2:C:799:ILE:O	2:C:827:VAL:HG13	2.04	0.57
3:N:850:LEU:H	3:N:850:LEU:HD12	1.69	0.57
2:M:302:VAL:O	2:M:305:PRO:HD2	2.04	0.57
2:C:1003:ASP:O	3:D:724:GLN:NE2	2.37	0.57
2:M:384:GLU:HA	2:M:388:ARG:HD3	1.86	0.57
2:C:460:ARG:NH2	2:C:468:ARG:HH11	2.02	0.57
2:C:487:THR:CG2	2:C:489:THR:HG23	2.35	0.57
3:D:1424:VAL:HG13	3:D:1425:THR:N	2.20	0.57
3:D:87:ARG:HB2	3:D:524:LEU:CD1	2.35	0.57
3:D:85:VAL:HB	3:D:89:ARG:NH1	2.19	0.57
3:N:6:ARG:O	3:N:7:LYS:HG3	2.05	0.57
4:E:34:GLY:CA	4:E:95:VAL:HB	2.34	0.57
3:N:1381:VAL:CG1	3:N:1382:THR:N	2.67	0.57
2:C:143:SER:O	2:C:145:GLY:N	2.38	0.57
3:D:774:SER:C	3:D:776:GLU:N	2.57	0.57
3:D:549:ASN:HB2	3:D:550:ARG:HH21	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:6:C:O5'	6:H:6:C:H6	1.87	0.57
6:H:7:G:H2'	6:H:8:G:O4'	2.04	0.57
1:B:115:LEU:O	1:B:115:LEU:HD12	2.04	0.57
2:C:12:VAL:CB	2:C:472:ARG:HH11	2.15	0.57
3:D:575:GLN:O	3:D:578:VAL:HB	2.05	0.57
2:M:816:LYS:HB2	2:M:819:VAL:HG21	1.86	0.57
3:N:417:PRO:HD2	3:N:432:TYR:CZ	2.40	0.57
3:N:443:VAL:HG13	3:N:445:ARG:NH2	2.20	0.57
2:C:9:ILE:O	2:C:9:ILE:HD12	2.05	0.57
2:C:1092:LEU:HB3	2:C:1099:VAL:HG23	1.87	0.57
3:N:134:VAL:HG12	3:N:152:LEU:CB	2.34	0.57
3:N:1389:LEU:CG	3:N:1390:LEU:N	2.66	0.57
3:D:785:ILE:HG22	3:D:789:LEU:HD11	1.87	0.57
3:D:919:PHE:HZ	3:D:1211:MET:HG3	1.67	0.57
2:M:584:GLU:HB3	2:M:666:LEU:HB3	1.86	0.57
1:A:153:ALA:HA	1:A:156:HIS:CE1	2.39	0.57
1:K:67:THR:HG21	2:M:609:ASN:OD1	2.04	0.57
2:M:203:ASP:O	2:M:207:LEU:HB2	2.04	0.57
1:K:73:GLU:CD	1:K:73:GLU:H	2.05	0.57
2:M:137:VAL:O	2:M:391:LEU:HD21	2.04	0.57
3:D:704:ARG:HG2	3:D:736:PHE:HB3	1.85	0.57
3:N:927:THR:O	3:N:930:LEU:HB3	2.04	0.57
3:N:1239:ARG:HG3	3:N:1240:THR:N	2.19	0.57
2:M:1091:GLU:OE1	3:N:613:ARG:HG2	2.05	0.57
3:N:1380:GLU:O	3:N:1417:TRP:HB2	2.04	0.57
2:C:676:ILE:O	2:C:676:ILE:HG23	2.05	0.57
5:G:28:DG:OP2	5:G:28:DG:C8	2.54	0.57
3:D:644:LEU:HD12	3:D:645:PRO:N	2.19	0.57
3:D:649:ALA:HA	3:D:652:LEU:HD22	1.87	0.57
1:A:171:PHE:O	1:A:173:PRO:HD3	2.04	0.57
3:N:1176:LYS:HA	3:N:1179:GLU:OE1	2.05	0.57
2:C:1031:ARG:HE	3:D:621:LYS:HD2	1.70	0.57
2:C:1095:LEU:O	2:C:1096:ALA:C	2.43	0.57
2:C:462:ASP:HB3	2:C:468:ARG:NE	2.20	0.57
2:C:489:THR:OG1	2:C:490:GLU:N	2.37	0.57
3:D:506:GLY:O	3:D:507:ASN:C	2.43	0.57
3:N:1106:VAL:HG11	3:N:1474:ALA:HB1	1.87	0.57
4:E:30:LEU:O	4:E:35:PHE:HA	2.04	0.57
3:N:456:MET:CA	3:N:460:ALA:HB2	2.30	0.57
5:X:13:DA:O5'	5:X:13:DA:H2'	2.04	0.57
5:X:17:DA:H2''	5:X:18:DC:OP2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1046:ALA:HB2	3:D:1476:THR:H	1.68	0.57
2:M:431:HIS:CD2	2:M:433:THR:HG1	2.21	0.57
2:M:1115:LEU:HD22	3:N:88:TYR:HD1	1.70	0.57
2:C:676:ILE:O	2:C:676:ILE:HG12	2.03	0.57
3:D:936:TYR:O	3:D:939:PHE:HB2	2.03	0.57
3:N:792:ILE:HG12	3:N:878:GLY:HA3	1.85	0.57
2:C:183:SER:CB	2:C:190:LYS:HG2	2.35	0.57
3:D:1207:TYR:O	3:D:1215:VAL:HG23	2.03	0.57
2:M:839:LEU:HD23	2:M:996:LYS:HA	1.86	0.57
2:M:221:LEU:HG	2:M:222:MET:HG3	1.86	0.57
2:C:1042:ALA:HB3	3:D:710:ARG:CB	2.35	0.57
5:G:22:DA:H2'	5:G:23:DG:C8	2.39	0.57
3:N:767:HIS:HA	3:N:924:MET:SD	2.45	0.57
1:B:221:HIS:HA	1:B:224:TYR:HD2	1.66	0.57
2:C:1056:LYS:HD3	3:D:623:VAL:HG13	1.86	0.57
3:N:109:PRO:HG2	3:N:1445:HIS:CE1	2.40	0.57
3:D:1192:LEU:HD23	3:D:1373:ARG:HB2	1.86	0.57
3:N:1274:ILE:HG21	3:N:1301:LYS:HZ2	1.70	0.57
2:C:301:GLU:O	2:C:305:PRO:HG2	2.04	0.57
3:N:159:ARG:HG2	3:N:163:TYR:CE2	2.40	0.57
2:C:226:VAL:HG13	2:C:227:PHE:CD1	2.39	0.57
2:M:174:LEU:HD22	2:M:193:LEU:HD21	1.87	0.57
3:N:899:LEU:HD22	3:N:917:GLN:CG	2.34	0.57
3:D:1205:TYR:HE2	3:D:1215:VAL:HG21	1.67	0.57
2:C:367:LEU:HB3	2:C:371:LYS:CE	2.35	0.57
2:M:367:LEU:O	2:M:372:LEU:HD13	2.05	0.57
3:N:628:ARG:HG3	3:N:628:ARG:NH1	2.18	0.57
1:B:89:PHE:HB3	1:B:94:LEU:HD12	1.86	0.57
1:L:73:GLU:HG3	1:L:130:ALA:CB	2.35	0.57
3:D:897:TRP:C	3:D:900:ILE:HG13	2.24	0.57
3:D:524:LEU:CD1	3:D:524:LEU:H	2.17	0.57
2:M:1105:LYS:NZ	2:M:1107:ASN:HB2	2.20	0.57
2:C:88:LEU:CD1	2:C:89:THR:H	2.17	0.57
3:N:87:ARG:HB2	3:N:524:LEU:CD1	2.34	0.57
3:D:1236:LEU:O	3:D:1237:THR:O	2.22	0.57
3:D:1209:LEU:HD21	4:E:16:LYS:CE	2.34	0.57
2:M:843:HIS:HE1	2:M:887:GLU:OE2	1.88	0.57
2:M:452:ILE:N	2:M:452:ILE:HD12	2.19	0.57
2:M:285:LEU:O	2:M:285:LEU:HD23	2.03	0.57
1:A:107:LYS:O	1:A:132:LEU:HB2	2.05	0.57
3:N:183:GLU:HG2	3:N:184:GLU:H	1.66	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:643:VAL:HG13	2:M:647:GLN:OE1	2.05	0.57
3:N:563:PRO:CG	3:N:566:ILE:HD12	2.35	0.57
3:N:36:THR:C	3:N:38:LYS:N	2.58	0.57
3:N:1396:GLU:O	3:N:1400:VAL:HG23	2.05	0.57
3:N:1017:PHE:HA	3:N:1022:VAL:HG21	1.85	0.57
2:C:409:ARG:NH2	6:H:11:C:H5"	2.20	0.57
3:N:697:GLY:HA2	3:N:717:GLN:OE1	2.05	0.57
1:B:41:ARG:HG3	1:B:177:VAL:HG21	1.87	0.57
7:Z:1:DG:P	7:Z:1:DG:C3'	2.92	0.57
3:N:52:PRO:HG2	3:N:85:VAL:HG23	1.87	0.57
2:C:304:LEU:HG	2:C:305:PRO:CD	2.33	0.57
4:O:57:ASP:H	4:O:58:PRO:HD3	1.69	0.57
3:N:199:LEU:HD23	3:N:200:ASP:H	1.70	0.57
1:L:84:GLU:CD	3:N:845:ASN:HB2	2.25	0.57
2:M:312:ALA:CB	2:M:318:PRO:HG2	2.32	0.57
2:M:41:ASN:HB2	2:M:45:GLN:CG	2.35	0.57
2:C:274:ARG:HG3	2:C:285:LEU:HD22	1.86	0.57
3:D:1403:LEU:O	3:D:1407:LEU:HB2	2.05	0.57
3:D:477:LEU:HD22	3:D:492:ALA:HB1	1.86	0.57
3:D:1044:LEU:O	3:D:1044:LEU:HD23	2.05	0.56
3:D:45:PHE:HD1	3:D:522:PRO:HB3	1.69	0.56
3:D:505:SER:OG	3:D:1453:ALA:HA	2.05	0.56
7:I:11:DG:H2"	7:I:12:DT:C6	2.40	0.56
3:N:700:VAL:HG22	3:N:718:PRO:HG3	1.87	0.56
3:N:701:LEU:H	3:N:701:LEU:CD1	2.12	0.56
3:N:752:SER:HB3	3:N:755:ALA:CB	2.35	0.56
2:C:50:GLU:CA	2:C:266:ARG:NH1	2.68	0.56
3:N:625:TYR:CE2	3:N:655:PRO:HG2	2.39	0.56
3:D:883:ALA:O	3:D:886:VAL:HB	2.05	0.56
3:N:843:PHE:HD2	3:N:848:GLU:HB3	1.70	0.56
2:C:1081:VAL:CB	2:C:1086:ARG:HE	2.15	0.56
1:K:197:LEU:N	1:K:197:LEU:HD23	2.18	0.56
2:C:584:GLU:HB3	2:C:666:LEU:HB3	1.87	0.56
2:C:957:LYS:HD3	2:C:961:GLU:HB3	1.85	0.56
3:N:574:LEU:O	3:N:578:VAL:HG23	2.04	0.56
3:D:1135:ARG:HD2	3:D:1140:ILE:HG13	1.86	0.56
3:N:947:ILE:HD12	3:N:947:ILE:O	2.04	0.56
2:C:44:ILE:O	2:C:48:PHE:CG	2.57	0.56
2:C:48:PHE:HB3	2:C:52:PHE:CD2	2.40	0.56
3:D:1041:LEU:HD12	3:D:1042:ARG:NH2	2.20	0.56
3:D:9:ARG:HA	3:D:1434:TRP:CH2	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:610:LYS:CA	3:N:615:ARG:HG2	2.36	0.56
3:N:1146:GLY:CA	3:N:1207:TYR:HB2	2.35	0.56
1:K:176:ARG:HG3	1:K:200:TRP:CE3	2.39	0.56
2:C:861:LEU:HG	2:C:862:PRO:CD	2.31	0.56
3:D:1108:ARG:N	3:D:1108:ARG:HD3	2.20	0.56
3:N:90:MET:HE1	3:N:520:LEU:HA	1.87	0.56
1:A:65:PHE:CD1	1:A:65:PHE:N	2.73	0.56
3:D:1066:THR:HG22	3:D:1069:GLU:CG	2.35	0.56
2:C:181:VAL:HG12	2:C:182:VAL:N	2.20	0.56
5:G:3:DC:O5'	5:G:3:DC:H6	1.88	0.56
3:D:1205:TYR:CD2	3:D:1215:VAL:HG21	2.40	0.56
2:C:966:LEU:CD2	2:C:986:PRO:HG2	2.35	0.56
1:K:111:ALA:HB3	1:K:124:ASN:O	2.05	0.56
2:C:350:ARG:O	2:C:353:ARG:HB3	2.05	0.56
2:C:757:GLY:HA2	2:C:789:SER:CB	2.35	0.56
3:D:983:LEU:HD12	3:D:988:ARG:HB2	1.86	0.56
3:N:666:ILE:HG23	3:N:684:LYS:NZ	2.19	0.56
1:K:107:LYS:O	1:K:132:LEU:HB2	2.05	0.56
2:M:148:PHE:HE1	2:M:309:TYR:HD2	1.53	0.56
3:N:495:ARG:O	3:N:499:VAL:HG23	2.04	0.56
2:C:44:ILE:HG23	2:C:344:PHE:CE1	2.40	0.56
2:C:26:TYR:O	2:C:30:LEU:HG	2.06	0.56
2:C:52:PHE:HZ	2:C:68:PHE:CB	2.00	0.56
3:D:897:TRP:CA	3:D:900:ILE:HG13	2.24	0.56
3:D:1435:LEU:CD2	3:D:1459:LEU:HD11	2.35	0.56
7:I:1:DG:H2''	7:I:2:DT:OP2	2.05	0.56
3:N:752:SER:O	3:N:756:GLN:N	2.37	0.56
2:M:1000:MET:O	2:M:1003:ASP:HB3	2.05	0.56
2:M:1035:MET:HA	2:M:1038:TRP:CE3	2.40	0.56
3:N:764:LEU:HD23	3:N:767:HIS:HE1	1.66	0.56
6:Y:8:G:C8	6:Y:8:G:H3'	2.41	0.56
1:A:222:LEU:HD22	1:B:219:ARG:HG3	1.86	0.56
1:A:38:ASN:HB3	1:A:39:PRO:HD3	1.86	0.56
3:N:613:ARG:NE	3:N:613:ARG:HA	2.20	0.56
4:E:34:GLY:HA3	4:E:95:VAL:HB	1.86	0.56
4:E:25:LYS:HA	4:E:28:GLN:OE1	2.04	0.56
3:N:804:LEU:N	3:N:804:LEU:HD23	2.20	0.56
3:N:834:THR:HG22	3:N:838:ARG:NH1	2.18	0.56
7:Z:7:DT:H2''	7:Z:8:DG:C8	2.40	0.56
2:C:939:ARG:HE	2:C:939:ARG:CA	2.16	0.56
3:N:119:SER:HB2	3:N:123:LEU:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:30:GLU:HB3	3:D:40:GLU:HB3	1.87	0.56
3:D:41:ARG:C	3:D:43:GLY:N	2.58	0.56
2:M:753:ASP:O	2:M:792:VAL:N	2.33	0.56
3:N:1023:MET:O	3:N:1028:ALA:CB	2.53	0.56
3:N:600:LEU:CD1	3:N:600:LEU:H	2.09	0.56
3:D:1379:VAL:CG1	3:D:1419:PRO:HA	2.33	0.56
3:D:1330:ILE:CD1	3:D:1347:TYR:OH	2.50	0.56
2:M:627:ARG:O	2:M:638:ASP:HB3	2.05	0.56
1:B:83:LYS:HD3	1:B:168:ASP:O	2.06	0.56
3:D:95:LEU:CD2	3:D:96:ALA:N	2.68	0.56
3:D:72:VAL:CG2	3:D:77:GLY:HA2	2.35	0.56
2:C:218:VAL:HG13	2:C:221:LEU:CD2	2.36	0.56
2:C:73:LEU:C	2:C:73:LEU:HD12	2.25	0.56
1:K:132:LEU:HD23	1:K:136:GLY:O	2.04	0.56
3:N:1124:GLN:OE1	3:N:1135:ARG:HG2	2.06	0.56
2:M:343:GLN:HG2	2:M:385:PHE:CG	2.40	0.56
1:L:47:SER:OG	1:L:217:ILE:HG12	2.05	0.56
3:D:1044:LEU:O	3:D:1045:MET:O	2.23	0.56
3:D:1461:GLY:O	3:D:1473:PRO:HG2	2.04	0.56
2:M:848:VAL:HG23	3:N:740:PHE:O	2.04	0.56
1:A:222:LEU:CD2	1:B:219:ARG:HG3	2.34	0.56
4:E:45:ARG:HD3	4:E:55:PHE:CD2	2.41	0.56
2:M:420:ARG:HD2	7:Z:1:DG:H5'	1.87	0.56
3:N:1274:ILE:CG2	3:N:1301:LYS:HZ2	2.19	0.56
3:N:154:THR:HG21	3:N:157:GLU:OE2	2.06	0.56
3:N:72:VAL:HG23	3:N:78:VAL:H	1.70	0.56
3:D:32:ILE:HG23	3:D:38:LYS:O	2.06	0.56
3:D:133:ILE:HA	3:D:456:MET:HB2	1.86	0.56
3:D:133:ILE:HG22	3:D:134:VAL:N	2.20	0.56
3:D:455:ARG:HB3	3:D:459:GLU:HG2	1.88	0.56
2:M:36:PRO:CG	2:M:70:GLU:HB3	2.30	0.56
4:O:26:ARG:CZ	4:O:73:LEU:HD21	2.36	0.56
1:A:88:ARG:CD	1:A:204:SER:O	2.53	0.56
3:N:1192:LEU:HD13	3:N:1345:GLU:HG2	1.86	0.56
3:N:503:LEU:O	3:N:504:ASP:C	2.44	0.56
2:M:181:VAL:HG12	2:M:182:VAL:N	2.21	0.56
5:G:6:DT:C2'	5:G:7:DA:OP2	2.41	0.56
2:M:393:GLN:HE21	6:Y:10:G:C4'	2.18	0.56
2:M:1090:LYS:HA	2:M:1093:GLN:HB2	1.87	0.56
7:Z:14:DG:H2''	7:Z:15:DT:OP2	2.05	0.56
2:C:265:ARG:HB3	2:C:267:TYR:CG	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1016:PRO:HA	3:N:1021:TYR:CE1	2.36	0.56
2:M:706:GLU:HG2	2:M:708:TYR:CE2	2.38	0.56
2:M:1016:ILE:CD1	2:M:1016:ILE:H	2.09	0.56
2:C:195:LEU:CD2	2:C:238:LEU:HG	2.36	0.56
2:C:184:MET:O	2:C:190:LYS:HA	2.05	0.56
2:M:681:GLY:HA3	3:N:939:PHE:CE1	2.40	0.56
5:G:2:DT:H2'	5:G:3:DC:C6	2.41	0.56
1:K:112:ARG:NH1	1:K:112:ARG:HG2	2.19	0.56
2:C:356:ARG:NH1	2:C:356:ARG:HB2	2.20	0.56
3:N:116:LEU:HD22	3:N:118:LEU:HD21	1.87	0.56
1:B:101:LEU:HD23	1:B:101:LEU:C	2.26	0.56
2:C:617:ASP:CG	2:C:619:ARG:HE	2.07	0.56
2:C:135:VAL:O	2:C:392:SER:HA	2.06	0.56
3:D:1447:LEU:O	3:D:1448:THR:C	2.44	0.56
3:D:9:ARG:HH11	3:D:1454:GLY:CA	2.19	0.56
7:I:5:DC:C2'	7:I:6:DT:OP2	2.41	0.56
2:M:1051:GLU:OE2	3:N:755:ALA:HB3	2.05	0.56
3:N:1238:MET:C	3:N:1239:ARG:CG	2.74	0.56
1:B:32:PHE:O	1:B:36:LEU:HG	2.04	0.56
6:H:5:C:C6	6:H:5:C:C3'	2.88	0.56
2:M:328:LEU:HD22	2:M:433:THR:CG2	2.30	0.56
2:C:144:PRO:HA	2:C:163:ILE:O	2.05	0.56
3:D:1382:THR:OG1	3:D:1418:LYS:HE3	2.06	0.56
1:A:106:PRO:HG3	1:A:134:GLU:OE1	2.04	0.56
3:D:1088:THR:HG23	3:D:1234:THR:HG21	1.88	0.56
1:A:48:ILE:CD1	1:A:174:VAL:HG21	2.36	0.56
2:M:183:SER:HG	2:M:190:LYS:HZ2	1.54	0.56
2:C:6:PHE:O	2:C:8:ARG:HD2	2.05	0.56
3:N:443:VAL:HG13	3:N:445:ARG:HH22	1.70	0.56
3:D:1135:ARG:HB3	3:D:1140:ILE:HD11	1.86	0.56
3:D:658:LEU:HA	3:D:661:MET:HG3	1.87	0.56
2:C:84:ARG:HA	2:C:131:GLY:HA2	1.87	0.56
2:C:878:SER:CB	3:D:1029:ARG:NH1	2.68	0.56
2:C:627:ARG:HG3	2:C:628:PHE:H	1.70	0.56
2:C:399:ASN:O	2:C:402:SER:N	2.39	0.56
3:D:1223:ILE:CD1	3:D:1223:ILE:N	2.69	0.56
2:M:261:ILE:CD1	2:M:262:ALA:H	2.18	0.56
3:D:752:SER:O	3:D:756:GLN:N	2.38	0.56
4:E:28:GLN:CB	4:E:32:ARG:HH12	2.18	0.56
2:M:420:ARG:HD2	7:Z:1:DG:H5'	1.88	0.56
7:Z:11:DG:H2'	7:Z:11:DG:OP2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1106:VAL:O	3:D:1108:ARG:HD3	2.06	0.56
2:M:328:LEU:HD13	2:M:433:THR:CB	2.30	0.56
3:N:875:THR:CG2	3:N:876:SER:N	2.69	0.56
2:M:63:GLY:CA	2:M:103:LYS:HG3	2.35	0.56
2:M:200:LEU:HD13	2:M:300:ASP:OD1	2.05	0.56
2:C:79:PRO:HG2	2:C:82:GLU:CG	2.35	0.56
2:M:682:TYR:O	2:M:850:ALA:HB3	2.05	0.56
1:L:102:LYS:CD	1:L:139:ASN:HB2	2.36	0.56
2:M:723:THR:HG23	2:M:725:ASP:HB2	1.87	0.56
2:M:191:PHE:HB2	2:M:241:LEU:HD11	1.87	0.56
2:M:700:TYR:HB3	2:M:833:LEU:HD13	1.86	0.56
5:G:7:DA:OP2	5:G:7:DA:C8	2.58	0.56
2:M:1038:TRP:HA	2:M:1041:GLU:CG	2.35	0.56
2:M:394:PHE:CZ	2:M:632:ASN:OD1	2.58	0.56
6:Y:6:C:C6	6:Y:6:C:O5'	2.53	0.56
3:N:1280:VAL:HA	3:N:1318:TYR:CA	2.32	0.56
3:D:1138:ALA:HB1	3:D:1362:LYS:HE3	1.87	0.56
2:M:754:ILE:HD11	2:M:791:ARG:CZ	2.35	0.56
1:L:28:LEU:HD12	1:L:193:ASP:HB3	1.88	0.56
2:C:162:ILE:CB	2:C:172:ILE:HB	2.33	0.56
2:C:728:HIS:O	2:C:729:LEU:HG	2.06	0.56
2:M:472:ARG:HH21	2:M:532:MET:HE1	1.71	0.56
1:K:86:VAL:HG13	1:K:124:ASN:HB2	1.88	0.56
1:A:102:LYS:O	1:A:102:LYS:HG3	2.05	0.56
2:M:195:LEU:HD21	2:M:238:LEU:HG	1.87	0.56
3:N:551:ASN:O	3:N:554:LEU:HB3	2.05	0.56
3:N:1115:THR:HG21	3:N:1151:ARG:HH21	1.70	0.56
1:K:213:GLN:O	1:K:217:ILE:HG13	2.06	0.56
2:M:176:VAL:HG12	2:M:182:VAL:HG13	1.88	0.56
1:B:73:GLU:OE1	1:B:130:ALA:HA	2.06	0.56
2:C:354:GLY:HA2	2:C:357:GLU:OE2	2.06	0.56
2:C:396:ASP:HB2	2:C:406:HIS:CD2	2.41	0.56
3:D:1446:VAL:HB	3:D:1447:LEU:CD1	2.36	0.56
3:D:525:ARG:HG2	3:D:525:ARG:O	2.06	0.56
2:M:394:PHE:HE1	2:M:632:ASN:HB3	1.70	0.56
3:N:1211:MET:HG2	3:N:1212:ALA:N	2.19	0.56
3:N:1103:HIS:CG	3:N:1104:GLU:H	2.24	0.56
2:M:1101:THR:OG1	2:M:1109:VAL:O	2.24	0.56
3:N:501:ALA:HB1	3:N:1452:ILE:HG22	1.86	0.56
2:M:438:ILE:N	2:M:438:ILE:HD12	2.21	0.56
3:N:1274:ILE:CD1	3:N:1276:GLU:HG2	2.22	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1281:VAL:HG23	3:N:1319:VAL:HG21	1.87	0.56
3:D:1344:VAL:O	3:D:1348:LEU:HD13	2.06	0.56
3:D:828:LYS:HE2	3:D:862:ASP:OD2	2.06	0.56
1:L:102:LYS:HG3	1:L:138:LEU:O	2.06	0.56
2:C:12:VAL:HG11	2:C:472:ARG:CD	2.36	0.56
3:D:813:LEU:HD12	3:D:813:LEU:C	2.26	0.56
3:N:989:TYR:O	3:N:993:LEU:HG	2.06	0.56
2:C:49:ARG:N	2:C:52:PHE:HB2	2.21	0.56
2:C:460:ARG:HH22	2:C:468:ARG:HH11	1.49	0.56
3:D:1377:LYS:HG2	3:D:1378:TYR:CE1	2.40	0.56
3:D:22:SER:OG	3:D:92:HIS:ND1	2.37	0.56
4:O:80:VAL:HG13	4:O:81:PRO:HD2	1.88	0.56
4:E:25:LYS:O	4:E:29:GLN:HG3	2.06	0.56
3:N:957:PRO:HG3	3:N:1007:VAL:HG22	1.85	0.56
3:N:1268:PRO:HG2	3:N:1270:ALA:O	2.06	0.56
3:N:87:ARG:HB3	3:N:523:ASP:HB2	1.89	0.56
3:N:525:ARG:HG2	3:N:525:ARG:O	2.06	0.56
3:N:902:LEU:HD23	3:N:902:LEU:N	2.21	0.56
2:M:141:HIS:O	2:M:331:ARG:HA	2.05	0.56
2:C:281:LEU:HD11	2:C:306:THR:HA	1.88	0.56
2:C:196:LEU:O	2:C:199:VAL:HB	2.06	0.56
3:D:128:TYR:CE2	3:D:458:ALA:HB2	2.41	0.56
3:N:767:HIS:CD2	4:O:6:ILE:CG1	2.87	0.55
3:N:1191:PRO:O	3:N:1373:ARG:NH1	2.39	0.55
3:D:696:HIS:HD2	4:E:59:ASN:N	2.01	0.55
3:N:502:PHE:CZ	3:N:509:PRO:HB3	2.41	0.55
2:M:74:GLY:O	2:M:76:PRO:HD3	2.06	0.55
3:D:899:LEU:HD23	3:D:917:GLN:HG3	1.86	0.55
2:M:368:THR:HB	2:M:369:PRO:HD3	1.87	0.55
2:C:876:VAL:HG11	2:C:885:ILE:HD11	1.87	0.55
2:M:757:GLY:HA2	2:M:789:SER:HB3	1.88	0.55
3:D:925:GLU:HB3	4:E:6:ILE:HG22	1.87	0.55
3:D:54:LYS:HG2	3:D:57:GLU:CD	2.26	0.55
3:D:1125:PRO:O	3:D:1131:SER:O	2.23	0.55
3:D:521:PRO:HB2	3:D:524:LEU:HD13	1.87	0.55
3:N:774:SER:C	3:N:776:GLU:N	2.57	0.55
3:N:1146:GLY:HA3	3:N:1207:TYR:HB2	1.88	0.55
3:N:1484:THR:HG23	4:O:76:GLY:O	2.06	0.55
4:E:54:LEU:HD23	4:E:58:PRO:HD2	1.88	0.55
3:N:482:LYS:HE2	3:N:1384:PRO:CD	2.31	0.55
2:C:975:TYR:HA	2:C:982:PRO:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:265:ARG:HD3	2:C:267:TYR:HB3	1.88	0.55
3:D:1003:VAL:HG21	3:D:1036:ARG:NH1	2.21	0.55
3:D:136:ASP:CG	3:D:137:PRO:HD3	2.26	0.55
2:M:584:GLU:O	2:M:588:VAL:HG13	2.05	0.55
3:N:465:LEU:HD13	3:N:510:GLU:HA	1.88	0.55
2:C:433:THR:O	2:C:435:TYR:N	2.37	0.55
3:D:1223:ILE:HD11	3:D:1462:LEU:HD11	1.88	0.55
3:N:638:LYS:HB2	3:N:641:GLN:OE1	2.06	0.55
3:D:994:GLN:HA	3:D:997:THR:OG1	2.06	0.55
1:K:38:ASN:ND2	2:M:978:ARG:O	2.40	0.55
3:N:1277:ILE:HD12	3:N:1301:LYS:CA	2.37	0.55
2:C:688:ILE:CG2	2:C:689:VAL:N	2.70	0.55
2:C:833:LEU:CD1	2:C:996:LYS:HE2	2.36	0.55
1:A:110:LYS:O	1:A:112:ARG:N	2.39	0.55
3:D:1183:ILE:HA	3:N:559:ALA:O	2.06	0.55
3:N:786:ILE:HG21	3:N:1027:GLY:H	1.70	0.55
3:D:62:LYS:HE2	3:D:62:LYS:HA	1.88	0.55
2:C:1058:ASP:HB3	2:C:1082:PRO:HB3	1.88	0.55
2:C:395:LYS:NZ	2:C:407:LYS:HZ2	2.04	0.55
3:D:1465:ASN:HD21	3:D:1470:ARG:CB	2.19	0.55
2:C:1085:PHE:CE2	3:D:1468:LEU:HA	2.42	0.55
5:G:12:DA:H2"	5:G:13:DA:OP2	2.05	0.55
2:M:1046:ALA:CB	3:N:1476:THR:HB	2.36	0.55
2:M:265:ARG:C	2:M:267:TYR:H	2.10	0.55
2:M:1058:ASP:HB3	2:M:1082:PRO:HB3	1.88	0.55
3:N:457:GLY:O	3:N:458:ALA:C	2.44	0.55
3:N:493:ARG:NH2	3:N:1391:GLU:HA	2.21	0.55
7:Z:11:DG:C2'	7:Z:12:DT:OP2	2.49	0.55
3:D:1147:ARG:HH12	3:D:1190:SER:HA	1.71	0.55
3:N:1277:ILE:CG1	3:N:1301:LYS:HB2	2.35	0.55
3:N:163:TYR:CE1	3:N:165:LYS:HA	2.42	0.55
3:D:1003:VAL:HG13	3:D:1036:ARG:CG	2.36	0.55
1:L:174:VAL:HG13	1:L:200:TRP:O	2.06	0.55
2:M:5:ARG:CB	2:M:902:ILE:HB	2.33	0.55
2:M:881:ASN:N	2:M:881:ASN:ND2	2.49	0.55
3:D:826:PRO:HD2	3:D:829:VAL:CG2	2.35	0.55
2:C:274:ARG:CG	2:C:285:LEU:HD13	2.36	0.55
1:L:26:GLU:OE2	1:L:26:GLU:N	2.39	0.55
2:C:157:ARG:NH2	2:C:158:TYR:HE1	2.05	0.55
2:C:958:THR:OG1	2:C:961:GLU:HG2	2.06	0.55
3:D:118:LEU:O	3:D:120:ALA:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:430:VAL:HB	3:D:1078:ARG:CZ	2.36	0.55
2:M:409:ARG:HA	2:M:454:SER:CA	2.26	0.55
2:M:466:PHE:O	2:M:468:ARG:HG3	2.06	0.55
3:N:625:TYR:HE2	3:N:655:PRO:HD2	1.72	0.55
4:E:46:PRO:CB	4:E:54:LEU:HD22	2.36	0.55
3:N:1441:GLN:CD	3:N:1442:ASN:H	2.10	0.55
5:X:16:DT:C2'	5:X:17:DA:OP2	2.51	0.55
2:M:422:ARG:CB	7:Z:1:DG:C2	2.85	0.55
3:D:764:LEU:HD23	3:D:767:HIS:HE1	1.60	0.55
1:A:65:PHE:CD1	2:C:801:VAL:HG12	2.40	0.55
2:M:45:GLN:O	2:M:48:PHE:HB2	2.06	0.55
2:M:211:LEU:CD1	2:M:308:ARG:HA	2.37	0.55
2:M:274:ARG:HH21	2:M:284:ARG:HA	1.72	0.55
2:M:269:LEU:CG	2:M:288:ARG:HG2	2.37	0.55
3:D:684:LYS:O	3:D:687:VAL:HG23	2.07	0.55
1:L:102:LYS:HG2	1:L:104:GLU:OE2	2.06	0.55
3:N:1084:THR:CG2	3:N:1087:ARG:HH22	2.18	0.55
3:N:584:ASN:ND2	3:N:590:PRO:HD2	2.22	0.55
1:A:117:VAL:HB	1:A:120:VAL:HG12	1.89	0.55
3:D:1095:THR:HG22	3:D:1098:LEU:HD22	1.89	0.55
3:D:1256:LEU:N	3:D:1257:PRO:HD2	2.21	0.55
3:D:18:ILE:O	3:D:22:SER:HB3	2.07	0.55
3:N:703:ASN:CB	3:N:713:ILE:HG12	2.36	0.55
3:N:711:LEU:CD1	3:N:778:LEU:HD23	2.27	0.55
2:M:861:LEU:HD23	2:M:863:ASP:N	2.16	0.55
1:K:156:HIS:ND1	1:K:158:ILE:HG12	2.21	0.55
3:N:133:ILE:HG12	3:N:456:MET:HB3	1.89	0.55
5:X:2:DT:H2'	5:X:3:DC:C5	2.42	0.55
3:D:781:PRO:HB2	3:D:786:ILE:HG12	1.87	0.55
3:N:1271:LYS:HZ1	3:N:1331:ASP:HB2	1.69	0.55
1:L:79:ILE:HA	1:L:82:LEU:CD1	2.36	0.55
1:L:102:LYS:CE	1:L:139:ASN:HB2	2.37	0.55
2:C:243:ARG:HG3	2:C:243:ARG:HH11	1.71	0.55
1:A:180:GLN:NE2	2:C:937:ASP:HB2	2.21	0.55
3:N:666:ILE:HG23	3:N:684:LYS:HZ2	1.71	0.55
2:C:205:GLU:OE2	2:C:206:THR:HG22	2.07	0.55
2:C:44:ILE:HG22	2:C:48:PHE:CE2	2.42	0.55
2:C:431:HIS:N	2:C:434:HIS:ND1	2.55	0.55
3:D:9:ARG:HH11	3:D:1454:GLY:HA3	1.71	0.55
5:X:19:DG:C2'	5:X:20:DC:H5'	2.33	0.55
2:M:409:ARG:NH2	6:Y:12:U:OP1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:ILE:C	1:A:47:SER:HB2	2.27	0.55
3:N:1372:VAL:HG13	3:N:1373:ARG:N	2.21	0.55
3:D:1340:GLY:O	3:D:1343:ALA:HB3	2.07	0.55
1:A:65:PHE:CZ	2:C:799:ILE:HB	2.41	0.55
3:D:925:GLU:HB2	4:E:2:ALA:HB3	1.89	0.55
1:L:84:GLU:OE1	3:N:845:ASN:HB2	2.07	0.55
2:M:707:ARG:HD2	2:M:824:ARG:CD	2.37	0.55
3:D:1154:GLU:HB2	3:N:562:ALA:N	2.22	0.55
1:B:25:LEU:O	1:B:28:LEU:HD21	2.07	0.55
2:C:474:VAL:HG23	2:C:478:VAL:O	2.07	0.55
2:C:385:PHE:O	2:C:389:SER:HB3	2.07	0.55
2:M:739:GLU:HB2	2:M:742:VAL:HB	1.89	0.55
2:C:41:ASN:CB	2:C:45:GLN:OE1	2.53	0.55
2:C:1090:LYS:HZ2	3:D:21:TRP:HB3	1.71	0.55
3:D:23:TYR:CE1	3:D:89:ARG:HG2	2.42	0.55
3:D:606:ILE:O	3:D:613:ARG:HB2	2.06	0.55
3:D:704:ARG:NE	3:D:705:ALA:HB3	2.22	0.55
3:N:728:LEU:CD1	3:N:729:HIS:H	2.16	0.55
2:M:163:ILE:HD13	2:M:171:TRP:CZ3	2.42	0.55
2:M:1101:THR:C	2:M:1102:LEU:HD12	2.26	0.55
4:E:60:ALA:O	4:E:63:TRP:HB2	2.07	0.55
2:M:936:VAL:CA	2:M:940:GLU:OE2	2.52	0.55
3:N:111:LYS:NZ	3:N:1449:GLU:HG3	2.22	0.55
5:X:9:DC:O5'	5:X:9:DC:H6	1.90	0.55
2:C:673:LEU:HD22	2:C:867:VAL:HG12	1.89	0.55
3:N:81:THR:HB	3:N:85:VAL:HG22	1.88	0.55
2:C:679:PHE:O	2:C:680:ASP:C	2.45	0.55
2:M:693:GLU:HG2	2:M:697:ARG:HH21	1.69	0.55
2:M:854:PRO:HB2	2:M:856:GLU:CG	2.37	0.55
3:N:41:ARG:C	3:N:43:GLY:H	2.09	0.55
3:D:826:PRO:HD2	3:D:829:VAL:HG22	1.89	0.55
3:N:1059:SER:CB	3:N:1065:LEU:HA	2.36	0.55
2:M:680:ASP:N	3:N:943:THR:CG2	2.70	0.55
3:N:112:ILE:O	3:N:116:LEU:N	2.33	0.55
1:B:101:LEU:HD12	1:B:113:ASP:C	2.27	0.55
2:C:756:VAL:O	2:C:789:SER:HB3	2.06	0.55
3:D:552:ASN:O	3:D:556:LYS:HG3	2.07	0.55
2:C:52:PHE:HZ	2:C:68:PHE:CA	2.19	0.55
3:D:708:LEU:HB3	3:D:1231:GLU:CB	2.35	0.55
3:D:704:ARG:HD2	3:D:745:MET:SD	2.47	0.55
3:N:1461:GLY:O	3:N:1473:PRO:HG2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:703:ASN:HA	3:N:713:ILE:HG12	1.88	0.55
2:M:145:GLY:CA	2:M:276:LYS:HD3	2.37	0.55
2:C:976:ASP:CB	2:C:979:THR:HG22	2.37	0.55
3:N:618:LEU:CD1	3:N:1467:ILE:HD13	2.36	0.55
1:K:96:THR:HB	1:K:145:ASP:OD2	2.06	0.55
3:N:135:LEU:HA	3:N:453:ASP:O	2.07	0.55
3:N:1281:VAL:HG21	3:N:1313:VAL:HG21	1.88	0.55
2:C:267:TYR:HB2	2:C:272:ALA:HB1	1.89	0.55
3:N:171:LEU:HD21	3:N:194:GLY:HA3	1.89	0.55
3:N:72:VAL:HG23	3:N:78:VAL:N	2.22	0.55
2:M:853:LEU:HB2	2:M:858:MET:HE3	1.88	0.55
2:M:905:ILE:N	2:M:905:ILE:CD1	2.70	0.55
3:N:26:VAL:HG13	3:N:43:GLY:O	2.06	0.55
1:A:102:LYS:CB	1:A:139:ASN:OD1	2.55	0.55
2:C:905:ILE:HG22	2:C:906:PHE:N	2.22	0.55
2:M:799:ILE:C	2:M:827:VAL:HG13	2.25	0.55
2:M:750:LYS:HD2	2:M:750:LYS:N	2.21	0.55
3:N:827:ILE:N	3:N:827:ILE:HD12	2.22	0.55
3:D:1034:GLN:O	3:D:1038:LEU:N	2.39	0.55
2:C:394:PHE:CZ	5:G:25:DG:H4'	2.42	0.55
3:D:704:ARG:NH1	3:D:738:ALA:CB	2.70	0.55
7:I:11:DG:C2'	7:I:12:DT:OP2	2.49	0.55
7:Z:3:DA:C1'	7:Z:4:DG:H5'	2.23	0.55
3:D:1189:ARG:HG3	3:D:1189:ARG:HH11	1.72	0.55
3:N:1274:ILE:HG21	3:N:1301:LYS:HD2	1.88	0.55
3:D:960:LYS:O	3:D:964:LEU:HB2	2.07	0.55
3:D:798:GLU:HG2	3:D:799:LYS:N	2.22	0.55
2:C:141:HIS:O	2:C:331:ARG:HA	2.06	0.55
3:D:1154:GLU:H	3:N:561:GLY:HA3	1.72	0.55
3:N:907:GLU:O	3:N:911:LEU:HD12	2.07	0.55
3:N:631:ILE:HG12	3:N:743:ASP:O	2.07	0.54
2:M:1092:LEU:O	2:M:1097:LEU:O	2.25	0.54
3:N:98:PRO:CG	3:N:462:GLN:OE1	2.55	0.54
3:N:1384:PRO:HG3	3:N:1389:LEU:N	2.22	0.54
3:D:30:GLU:CD	3:D:40:GLU:HG2	2.27	0.54
2:C:739:GLU:HB2	2:C:742:VAL:HB	1.89	0.54
3:N:845:ASN:ND2	3:N:846:PRO:HD2	2.22	0.54
2:M:713:ARG:HG2	2:M:714:ASP:N	2.22	0.54
2:C:79:PRO:HG2	2:C:82:GLU:HG3	1.89	0.54
1:B:100:LEU:HB2	1:B:115:LEU:CD2	2.37	0.54
2:M:1074:GLU:CG	2:M:1075:ASP:H	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:9:PRO:HB3	1:B:25:LEU:CD2	2.36	0.54
1:A:13:VAL:CG1	1:A:14:ARG:N	2.70	0.54
3:D:9:ARG:HG3	3:D:1455:LYS:O	2.06	0.54
3:N:1435:LEU:HD22	3:N:1457:ASP:CG	2.28	0.54
2:M:393:GLN:CG	6:Y:10:G:H4'	2.37	0.54
2:M:490:GLU:CB	2:M:493:ARG:HH11	2.04	0.54
3:N:13:ALA:O	3:N:511:TRP:HB3	2.07	0.54
3:N:135:LEU:CD1	3:N:147:VAL:HG23	2.37	0.54
3:N:134:VAL:O	3:N:454:ALA:HA	2.07	0.54
3:N:478:LEU:HD23	3:N:1388:ARG:HD3	1.88	0.54
3:N:1447:LEU:O	3:N:1448:THR:C	2.45	0.54
2:M:433:THR:O	2:M:435:TYR:N	2.37	0.54
3:N:1276:GLU:HA	3:N:1301:LYS:HG2	1.88	0.54
2:C:31:GLN:NE2	2:C:38:LYS:O	2.40	0.54
2:C:141:HIS:CD2	2:C:332:ARG:HB3	2.43	0.54
3:D:1154:GLU:C	3:N:562:ALA:H	2.11	0.54
3:N:1393:GLN:HB2	3:N:1398:TRP:CZ2	2.42	0.54
3:D:770:LEU:HB2	3:D:1210:SER:O	2.08	0.54
1:L:152:PRO:HB2	1:L:155:LYS:HB2	1.88	0.54
2:C:160:ALA:HB3	2:C:174:LEU:HD12	1.90	0.54
1:B:92:PRO:HA	1:B:146:ARG:NH1	2.23	0.54
2:C:49:ARG:HA	2:C:52:PHE:HB2	1.88	0.54
2:C:49:ARG:CA	2:C:52:PHE:HB2	2.37	0.54
2:C:400:PRO:HA	2:C:403:SER:OG	2.07	0.54
2:C:442:GLU:OE2	2:C:543:ASN:HB3	2.08	0.54
3:D:741:ASP:OD2	6:H:14:G:O3'	2.25	0.54
6:Y:4:G:H8	6:Y:4:G:O5'	1.90	0.54
1:A:43:ILE:O	1:A:47:SER:HB2	2.06	0.54
3:N:1281:VAL:HG21	3:N:1313:VAL:HG11	1.89	0.54
2:C:676:ILE:HG23	3:D:948:THR:HB	1.90	0.54
3:N:660:LYS:HD2	3:N:694:VAL:CG2	2.35	0.54
6:H:7:G:C2'	6:H:8:G:H5'	2.36	0.54
2:C:90:TYR:C	2:C:91:GLN:HG3	2.27	0.54
1:A:154:GLU:OE2	1:A:154:GLU:N	2.39	0.54
2:C:1007:ALA:HB1	3:D:652:LEU:HD13	1.88	0.54
2:M:767:PRO:HB3	2:M:772:ARG:NH2	2.23	0.54
2:M:550:LEU:HG	3:N:1070:TYR:HE1	1.71	0.54
2:C:48:PHE:HB3	2:C:52:PHE:HD2	1.72	0.54
2:M:1000:MET:CB	2:M:1002:GLU:HG2	2.33	0.54
3:N:14:SER:O	3:N:17:LYS:N	2.41	0.54
3:N:136:ASP:CB	3:N:137:PRO:CD	2.81	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:Z:13:DA:C2'	7:Z:14:DG:OP2	2.53	0.54
2:C:290:LEU:N	2:C:290:LEU:HD23	2.22	0.54
3:D:42:ASP:O	3:D:43:GLY:O	2.25	0.54
3:N:433:GLY:HA2	3:N:449:SER:O	2.08	0.54
2:M:757:GLY:HA2	2:M:789:SER:CB	2.37	0.54
2:C:922:PHE:HD2	2:C:964:LYS:HZ2	1.55	0.54
1:A:50:GLY:HA3	1:A:171:PHE:O	2.06	0.54
2:M:183:SER:OG	2:M:190:LYS:HG2	2.08	0.54
2:C:1013:TYR:HD1	2:C:1020:PRO:HG3	1.72	0.54
2:C:223:ASP:OD2	2:C:224:GLU:HG2	2.07	0.54
2:C:458:TYR:HB3	2:C:485:TYR:OH	2.08	0.54
3:D:47:GLU:CG	3:D:53:ILE:HB	2.38	0.54
2:M:1001:VAL:CG2	5:X:24:DC:H5'	2.38	0.54
3:N:631:ILE:HB	3:N:740:PHE:HE2	1.73	0.54
3:N:918:ALA:HB1	3:N:927:THR:HG23	1.88	0.54
5:X:26:DC:C4	5:X:27:DC:N4	2.75	0.54
2:C:896:PHE:CE2	2:C:925:TYR:HA	2.42	0.54
3:D:1472:ILE:O	3:D:1477:GLY:HA3	2.07	0.54
3:N:82:LYS:HA	3:N:82:LYS:CE	2.37	0.54
2:M:1115:LEU:HD22	3:N:88:TYR:CD1	2.42	0.54
2:C:557:ARG:NH1	2:C:560:MET:HG3	2.23	0.54
3:D:36:THR:C	3:D:38:LYS:H	2.09	0.54
2:C:796:GLU:CB	2:C:1004:LYS:HZ3	2.16	0.54
2:C:410:ILE:HG22	2:C:453:THR:HG23	1.89	0.54
1:A:57:TYR:HE1	1:A:163:ASN:HB2	1.72	0.54
2:C:118:ILE:HG22	2:C:382:ILE:HD13	1.89	0.54
2:C:55:GLU:OE2	2:C:57:GLU:HB2	2.08	0.54
2:M:243:ARG:N	2:M:244:PRO:HD3	2.21	0.54
1:K:89:PHE:HB3	1:K:94:LEU:HD13	1.89	0.54
3:D:502:PHE:CE2	3:D:509:PRO:HB3	2.43	0.54
2:M:402:SER:HA	2:M:566:THR:CG2	2.33	0.54
3:N:1031:ASN:O	3:N:1033:GLN:N	2.39	0.54
2:C:693:GLU:HA	2:C:696:LYS:HD2	1.90	0.54
3:N:181:ASP:HA	3:N:205:TYR:CD1	2.43	0.54
3:N:63:TYR:CD1	3:N:73:CYS:HA	2.43	0.54
3:D:690:ALA:O	3:D:694:VAL:HG23	2.07	0.54
3:N:41:ARG:NH1	3:N:42:ASP:HB3	2.23	0.54
2:M:202:TYR:OH	2:M:304:LEU:HD22	2.08	0.54
1:L:58:ILE:HD11	1:L:140:MET:SD	2.47	0.54
2:M:709:GLU:HG3	2:M:824:ARG:HG3	1.90	0.54
1:A:4:SER:HA	1:A:7:LYS:HE2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:435:TYR:CE1	2:C:539:VAL:HG21	2.42	0.54
3:D:1256:LEU:O	3:D:1257:PRO:C	2.46	0.54
2:C:1087:VAL:HG23	3:D:524:LEU:CD2	2.38	0.54
3:D:704:ARG:HH11	3:D:738:ALA:HB2	1.72	0.54
5:G:10:DA:H2''	5:G:11:DC:OP2	2.08	0.54
2:M:405:ARG:C	2:M:407:LYS:N	2.60	0.54
6:Y:5:C:C6	6:Y:5:C:O5'	2.61	0.54
3:N:1109:GLU:CD	3:N:1202:GLN:N	2.61	0.54
3:N:834:THR:HB	3:N:838:ARG:HB2	1.90	0.54
3:N:1096:ARG:NH2	5:X:18:DC:OP1	2.37	0.54
3:N:154:THR:CG2	3:N:157:GLU:OE2	2.56	0.54
2:M:630:ARG:O	2:M:630:ARG:HG3	2.08	0.54
2:C:36:PRO:HB2	2:C:70:GLU:CG	2.38	0.54
4:O:30:LEU:O	4:O:35:PHE:HA	2.08	0.54
2:M:758:ARG:NH1	2:M:788:THR:HB	2.22	0.54
2:M:622:GLU:O	2:M:624:PRO:HD3	2.08	0.54
1:B:25:LEU:HD23	1:B:28:LEU:HD21	1.89	0.54
3:N:503:LEU:O	3:N:506:GLY:N	2.40	0.54
2:M:512:ARG:HD3	2:M:523:ILE:CD1	2.38	0.54
2:C:510:ALA:O	2:C:513:VAL:HG23	2.08	0.54
1:B:14:ARG:HB2	1:B:22:GLU:HB2	1.90	0.54
3:N:1211:MET:CE	3:N:1213:ARG:HB3	2.38	0.54
2:M:267:TYR:CE1	2:M:273:GLY:HA3	2.43	0.54
1:A:222:LEU:CD2	1:B:219:ARG:CB	2.86	0.54
2:M:975:TYR:HA	2:M:982:PRO:HA	1.90	0.54
3:N:493:ARG:HH22	3:N:1392:GLY:H	1.54	0.54
2:M:73:LEU:HD12	2:M:74:GLY:N	2.23	0.54
3:D:1106:VAL:HG11	3:D:1474:ALA:HB1	1.88	0.54
3:N:1283:ILE:HB	3:N:1315:ASP:OD1	2.08	0.54
2:C:263:ASP:C	2:C:264:PRO:O	2.46	0.54
2:M:5:ARG:HA	2:M:902:ILE:O	2.08	0.54
3:D:1066:THR:HG23	3:D:1069:GLU:H	1.72	0.54
2:C:185:LYS:HG3	2:C:190:LYS:HG3	1.90	0.54
5:G:2:DT:OP2	5:G:2:DT:H4'	2.07	0.54
3:N:65:ARG:HG3	3:N:66:GLN:H	1.72	0.54
2:C:897:LEU:O	2:C:899:GLN:HG2	2.08	0.54
3:D:1398:TRP:HA	3:D:1398:TRP:HE3	1.73	0.54
2:M:148:PHE:CE1	2:M:309:TYR:HD2	2.26	0.54
1:K:19:GLU:HA	1:K:201:THR:O	2.07	0.54
3:D:683:ILE:N	3:D:683:ILE:HD12	2.23	0.54
1:L:55:SER:OG	1:L:166:PRO:HA	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:185:ARG:O	1:K:185:ARG:HG3	2.08	0.54
2:M:399:ASN:O	2:M:402:SER:N	2.41	0.54
3:N:1031:ASN:ND2	3:N:1034:GLN:HG3	2.23	0.54
1:A:39:PRO:HG3	1:B:39:PRO:HG2	1.87	0.54
2:M:157:ARG:HD3	2:M:314:THR:HG22	1.90	0.54
2:M:503:LEU:HD23	2:M:507:ARG:O	2.07	0.54
2:M:842:ARG:HG3	2:M:995:MET:HE2	1.90	0.54
1:A:89:PHE:C	1:A:90:LEU:HD12	2.29	0.54
3:D:1492:LEU:HD12	3:D:1493:LYS:CE	2.38	0.54
2:M:512:ARG:HD3	2:M:523:ILE:HD11	1.89	0.54
3:N:964:LEU:O	3:N:968:ASP:HB2	2.08	0.54
1:K:193:ASP:HA	2:M:938:LYS:HZ3	1.72	0.54
3:N:970:LYS:HD3	3:N:995:LEU:HD13	1.89	0.54
3:D:1031:ASN:CB	3:D:1034:GLN:HB3	2.38	0.54
2:C:18:LEU:HD12	2:C:18:LEU:N	2.15	0.54
3:D:487:ALA:N	5:G:8:DC:OP2	2.41	0.54
5:G:16:DT:C2	5:G:17:DA:N7	2.75	0.54
4:O:16:LYS:HG2	4:O:17:TYR:N	2.22	0.54
3:N:1098:LEU:HD23	3:N:1226:ALA:CA	2.30	0.54
2:C:926:PHE:CD2	2:C:960:GLU:OE2	2.61	0.54
3:N:568:ARG:HE	3:N:572:ARG:HG2	1.73	0.54
2:C:739:GLU:CB	2:C:742:VAL:HB	2.37	0.54
2:M:754:ILE:HD12	2:M:789:SER:CB	2.37	0.54
3:D:117:ASP:HB2	3:D:495:ARG:CZ	2.37	0.54
2:C:1081:VAL:HB	2:C:1086:ARG:HH21	1.73	0.54
3:D:1197:ARG:HB3	3:D:1396:GLU:OE2	2.08	0.54
2:M:471:TYR:CE2	2:M:496:ILE:HG21	2.42	0.54
3:N:683:ILE:CG2	3:N:684:LYS:N	2.71	0.54
3:N:148:GLU:HG2	3:N:151:GLN:HB2	1.90	0.54
2:C:1018:GLN:HG2	3:D:87:ARG:NH2	2.23	0.53
2:C:433:THR:HG21	2:C:488:ALA:HB1	1.90	0.53
2:C:460:ARG:HG3	2:C:460:ARG:HH11	1.74	0.53
2:M:1102:LEU:O	3:N:5:VAL:CG1	2.56	0.53
3:D:1114:THR:CG2	3:D:1114:THR:O	2.56	0.53
3:D:41:ARG:HD3	3:D:42:ASP:N	2.23	0.53
3:D:814:ALA:HB1	3:D:818:ARG:NH2	2.13	0.53
1:L:179:PHE:CD2	1:L:179:PHE:N	2.74	0.53
2:M:679:PHE:O	2:M:680:ASP:C	2.46	0.53
1:A:124:ASN:OD1	1:A:127:LEU:HB2	2.08	0.53
3:N:36:THR:O	3:N:38:LYS:N	2.39	0.53
1:K:99:LEU:HB2	1:K:142:VAL:HG23	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:179:PHE:HD2	1:B:179:PHE:N	2.06	0.53
3:N:117:ASP:HB2	3:N:495:ARG:HH12	1.73	0.53
4:O:45:ARG:HG2	4:O:46:PRO:HD2	1.90	0.53
2:M:198:ARG:HD2	2:M:204:GLN:OE1	2.07	0.53
1:B:184:THR:O	1:B:192:LEU:HB2	2.08	0.53
2:M:143:SER:OG	2:M:147:TYR:OH	2.24	0.53
3:N:1484:THR:HG23	4:O:76:GLY:C	2.29	0.53
4:E:57:ASP:H	4:E:58:PRO:HD3	1.73	0.53
1:K:42:ARG:HH12	1:L:34:VAL:CB	2.21	0.53
2:C:265:ARG:HG2	2:C:267:TYR:N	2.22	0.53
2:C:1040:LEU:HD23	2:C:1049:LEU:CD1	2.37	0.53
2:C:274:ARG:HH21	2:C:284:ARG:HA	1.73	0.53
3:D:54:LYS:HG2	3:D:57:GLU:OE1	2.08	0.53
1:L:26:GLU:HB3	1:L:194:LYS:HA	1.90	0.53
2:M:1075:ASP:OD2	4:O:31:LEU:HD13	2.07	0.53
1:B:52:ALA:HB2	1:B:170:VAL:O	2.07	0.53
2:C:1006:HIS:HA	2:C:1027:PHE:HD1	1.73	0.53
2:C:893:ALA:HB1	2:C:897:LEU:HD12	1.90	0.53
2:C:516:ARG:NE	3:D:1068:LEU:HD22	2.22	0.53
2:C:714:ASP:OD1	2:C:719:PRO:HG3	2.08	0.53
1:K:174:VAL:HG22	1:K:201:THR:HG22	1.89	0.53
3:N:505:SER:OG	3:N:1454:GLY:N	2.41	0.53
2:C:22:GLN:C	2:C:121:MET:HE1	2.27	0.53
2:C:395:LYS:O	2:C:397:GLU:HG3	2.08	0.53
2:C:327:HIS:HA	2:C:431:HIS:CD2	2.44	0.53
3:D:107:ASP:O	3:D:108:VAL:C	2.46	0.53
3:D:741:ASP:OD2	6:H:14:G:H5''	2.09	0.53
7:I:11:DG:H2'	7:I:12:DT:C7	2.37	0.53
2:M:1034:GLU:HA	2:M:1037:VAL:HG23	1.90	0.53
2:M:406:HIS:CD2	2:M:409:ARG:HH21	2.26	0.53
4:E:23:VAL:O	4:E:26:ARG:HB3	2.08	0.53
2:M:939:ARG:HD3	2:M:982:PRO:HD3	1.89	0.53
7:Z:1:DG:H3'	7:Z:1:DG:OP1	2.08	0.53
2:C:693:GLU:O	2:C:697:ARG:HG2	2.08	0.53
3:D:1200:VAL:HG12	3:D:1201:CYS:O	2.09	0.53
3:D:1107:VAL:HG12	3:D:1217:ILE:HG23	1.90	0.53
2:M:437:ARG:CZ	2:M:488:ALA:HA	2.38	0.53
4:O:54:LEU:O	4:O:54:LEU:HD23	2.08	0.53
2:M:697:ARG:HG3	2:M:697:ARG:O	2.09	0.53
2:C:1040:LEU:HD23	2:C:1049:LEU:HD13	1.90	0.53
2:C:31:GLN:NE2	2:C:38:LYS:HB2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:49:PRO:HB3	1:A:148:VAL:HG22	1.91	0.53
1:B:206:THR:HG22	1:B:209:GLU:H	1.73	0.53
3:N:1296:SER:C	3:N:1298:GLY:H	2.10	0.53
2:C:1035:MET:HE1	5:G:19:DG:H4'	1.91	0.53
2:M:1048:THR:O	2:M:1052:MET:SD	2.66	0.53
3:N:701:LEU:C	3:N:702:LEU:HD12	2.29	0.53
3:D:1033:GLN:C	3:D:1037:GLN:CB	2.69	0.53
3:N:482:LYS:CE	3:N:1384:PRO:HD2	2.34	0.53
1:K:34:VAL:HG13	1:K:35:THR:N	2.22	0.53
3:N:520:LEU:CD1	3:N:521:PRO:HD2	2.38	0.53
3:N:55:ASP:HB3	3:N:82:LYS:NZ	2.24	0.53
2:C:676:ILE:HG21	2:C:988:VAL:HG13	1.88	0.53
3:D:857:ILE:HG22	3:D:858:VAL:HG13	1.91	0.53
2:C:172:ILE:HD12	2:C:172:ILE:N	2.23	0.53
2:M:17:PRO:O	2:M:20:GLU:HB3	2.08	0.53
3:D:701:LEU:O	3:D:747:VAL:HG23	2.08	0.53
3:N:1122:LEU:HD13	3:N:1184:GLN:O	2.08	0.53
2:C:122:THR:HB	2:C:124:ASP:CG	2.29	0.53
2:C:124:ASP:OD1	2:C:126:SER:N	2.25	0.53
2:C:336:VAL:N	2:C:339:LEU:HD12	2.23	0.53
2:C:431:HIS:N	2:C:434:HIS:CE1	2.72	0.53
3:N:1472:ILE:O	3:N:1477:GLY:HA3	2.08	0.53
3:N:701:LEU:N	3:N:701:LEU:HD12	2.12	0.53
5:X:26:DC:N3	5:X:27:DC:N4	2.56	0.53
1:B:36:LEU:O	1:B:39:PRO:HD2	2.09	0.53
3:N:1365:ASP:O	3:N:1369:GLU:HG3	2.09	0.53
3:D:695:ILE:O	3:D:696:HIS:C	2.46	0.53
2:M:972:VAL:HG23	2:M:974:LEU:HD13	1.90	0.53
3:N:111:LYS:HE2	3:N:1445:HIS:CD2	2.44	0.53
2:C:164:PRO:HD2	2:C:170:PRO:O	2.08	0.53
3:N:143:ASN:OD1	3:N:145:VAL:HG12	2.08	0.53
3:D:949:ILE:HD11	3:D:1023:MET:HE3	1.90	0.53
3:D:880:ILE:HD13	3:D:880:ILE:O	2.08	0.53
3:D:133:ILE:HA	3:D:456:MET:CB	2.37	0.53
1:A:63:HIS:HE1	1:A:65:PHE:O	1.91	0.53
3:N:1019:PRO:O	3:N:1023:MET:HB2	2.08	0.53
2:M:570:PRO:CD	2:M:635:THR:HG21	2.36	0.53
2:M:758:ARG:HG2	2:M:788:THR:OG1	2.08	0.53
3:D:1197:ARG:CD	3:D:1198:TYR:H	2.21	0.53
2:C:140:ILE:HG23	2:C:410:ILE:HD13	1.90	0.53
1:L:59:GLU:HB2	1:L:137:ARG:HH22	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:113:GLY:O	3:N:116:LEU:O	2.26	0.53
1:A:223:THR:C	1:A:225:PHE:H	2.11	0.53
1:B:48:ILE:HD13	1:B:210:ALA:HB1	1.91	0.53
1:K:152:PRO:HD2	1:K:155:LYS:HB2	1.90	0.53
3:D:1102:THR:O	3:D:1103:HIS:C	2.46	0.53
3:D:493:ARG:HD2	3:D:493:ARG:C	2.29	0.53
5:G:9:DC:H6	5:G:9:DC:O5'	1.89	0.53
2:M:1013:TYR:CD2	2:M:1063:ARG:NH2	2.77	0.53
2:M:683:ASN:HB2	2:M:872:ASN:HB2	1.89	0.53
3:N:756:GLN:HG3	4:O:61:VAL:HG21	1.90	0.53
2:M:460:ARG:HG2	2:M:485:TYR:CD2	2.43	0.53
2:M:292:ARG:HH11	2:M:299:LYS:HD3	1.74	0.53
3:N:688:TRP:HA	3:N:688:TRP:CE3	2.44	0.53
3:N:1441:GLN:HG2	3:N:1442:ASN:H	1.73	0.53
2:C:572:ILE:HG23	2:C:703:ILE:HD13	1.89	0.53
2:C:537:LYS:HZ1	2:C:904:PRO:HB3	1.74	0.53
2:C:1062:GLY:O	2:C:1066:ALA:CB	2.57	0.53
2:C:503:LEU:HD23	2:C:507:ARG:O	2.08	0.53
3:N:400:VAL:HG22	3:N:443:VAL:HG21	1.91	0.53
6:Y:1:C:H2'	6:Y:2:C:C6	2.44	0.53
3:D:465:LEU:HA	3:D:468:LEU:HD12	1.91	0.53
2:M:1033:GLY:O	2:M:1037:VAL:HG23	2.08	0.53
6:Y:9:C:H2'	6:Y:10:G:H5'	1.91	0.53
2:M:251:ASP:C	2:M:252:LYS:HG3	2.28	0.53
2:M:1081:VAL:HB	2:M:1086:ARG:HE	1.74	0.53
3:N:568:ARG:HG3	3:N:572:ARG:HE	1.72	0.53
2:M:581:THR:C	2:M:902:ILE:HG23	2.29	0.53
2:C:762:LYS:NZ	2:C:786:LYS:HG3	2.24	0.53
2:M:139:GLN:CD	2:M:415:PRO:HD3	2.29	0.53
1:A:199:ILE:HD12	1:A:199:ILE:N	2.24	0.53
2:C:195:LEU:O	2:C:199:VAL:HG23	2.08	0.53
1:B:24:VAL:CG1	1:B:196:THR:HG22	2.36	0.53
1:L:105:GLY:O	1:L:132:LEU:HB3	2.08	0.53
1:A:57:TYR:CZ	1:A:161:ARG:HG2	2.43	0.53
1:A:62:LEU:HD12	1:A:62:LEU:N	2.23	0.53
3:N:1118:ILE:HG13	3:N:1192:LEU:HD12	1.90	0.53
3:D:983:LEU:H	3:D:983:LEU:CD2	2.22	0.53
3:N:871:LYS:CB	3:N:873:LEU:HD21	2.39	0.53
2:M:295:ASP:HB2	2:M:297:GLU:OE2	2.09	0.53
3:D:720:LEU:H	3:D:720:LEU:HD12	1.74	0.53
3:N:1132:LEU:N	3:N:1132:LEU:HD12	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:561:GLY:O	2:C:565:GLN:HG3	2.07	0.53
2:C:1037:VAL:O	2:C:1041:GLU:HG3	2.09	0.53
2:C:18:LEU:HD13	2:C:590:ASP:CG	2.29	0.53
3:D:16:GLU:HA	3:D:19:ARG:HG2	1.89	0.53
3:D:6:ARG:C	3:D:7:LYS:HG3	2.29	0.53
7:I:3:DA:C1'	7:I:4:DG:H5'	2.21	0.53
2:M:135:VAL:O	2:M:392:SER:HA	2.08	0.53
2:M:878:SER:OG	3:N:1029:ARG:NH2	2.42	0.53
4:E:28:GLN:C	4:E:32:ARG:HH12	2.12	0.53
3:D:698:LYS:HD2	4:E:59:ASN:OD1	2.09	0.53
3:N:1093:TYR:HE2	3:N:1440:PHE:HE2	1.57	0.53
3:N:1096:ARG:HH22	5:X:18:DC:P	2.32	0.53
5:X:13:DA:O5'	5:X:13:DA:C2'	2.55	0.53
2:M:7:GLY:HA2	2:M:907:ASP:O	2.09	0.53
2:M:714:ASP:OD2	2:M:820:ARG:HB2	2.09	0.53
3:D:483:HIS:HB2	3:D:484:PRO:CD	2.34	0.53
2:M:603:VAL:O	2:M:646:GLY:HA2	2.09	0.53
2:M:195:LEU:HG	2:M:238:LEU:HG	1.90	0.53
1:K:223:THR:C	1:K:225:PHE:H	2.11	0.53
2:C:617:ASP:CG	2:C:619:ARG:HH21	2.12	0.53
2:M:244:PRO:HG2	2:M:246:ASP:OD2	2.08	0.53
3:D:52:PRO:HD2	3:D:85:VAL:HG23	1.89	0.53
3:N:767:HIS:NE2	4:O:6:ILE:HD13	2.23	0.53
4:E:54:LEU:CA	4:E:58:PRO:HG2	2.36	0.53
3:N:133:ILE:HG22	3:N:134:VAL:H	1.74	0.53
3:N:136:ASP:CG	3:N:137:PRO:HD3	2.29	0.53
3:D:907:GLU:OE1	3:D:909:ASN:HB2	2.09	0.53
2:C:145:GLY:CA	2:C:276:LYS:HD3	2.39	0.53
2:C:688:ILE:HD11	2:C:847:GLY:HA3	1.90	0.53
6:H:6:C:C5	6:H:7:G:C5	2.97	0.53
2:M:302:VAL:O	2:M:306:THR:HG23	2.09	0.53
1:A:106:PRO:CG	1:A:134:GLU:CD	2.74	0.53
2:M:345:ARG:HA	2:M:348:LEU:HB2	1.90	0.53
2:M:274:ARG:HG3	2:M:274:ARG:NH1	2.23	0.53
2:C:332:ARG:HG2	2:C:333:ILE:N	2.23	0.53
1:K:50:GLY:CA	1:K:173:PRO:HG3	2.38	0.53
2:M:26:TYR:O	2:M:30:LEU:HG	2.09	0.53
1:K:199:ILE:HD12	1:K:199:ILE:N	2.23	0.53
3:N:708:LEU:HB3	3:N:1231:GLU:HB2	1.90	0.53
1:A:170:VAL:O	1:A:170:VAL:HG23	2.09	0.53
3:N:901:GLN:HG3	3:N:901:GLN:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:69:LEU:HD12	2:C:97:ARG:CB	2.24	0.53
3:D:897:TRP:CA	3:D:900:ILE:CD1	2.81	0.53
2:C:850:ALA:HA	3:D:632:VAL:CG1	2.39	0.53
3:N:19:ARG:HH21	3:N:516:ALA:CB	1.99	0.53
2:M:861:LEU:HD23	2:M:862:PRO:CD	2.38	0.53
1:K:96:THR:O	1:K:96:THR:HG23	2.07	0.53
3:N:107:ASP:CG	3:N:109:PRO:HD2	2.28	0.53
3:N:1438:ALA:HA	3:N:1446:VAL:HG21	1.90	0.53
2:M:129:ILE:CD1	2:M:134:ARG:HB2	2.36	0.53
2:M:976:ASP:OD1	2:M:978:ARG:HB2	2.08	0.53
3:D:911:LEU:O	3:D:915:VAL:HG23	2.09	0.53
2:C:683:ASN:O	2:C:872:ASN:CB	2.53	0.53
3:D:875:THR:HG22	3:D:876:SER:N	2.24	0.53
2:M:791:ARG:O	2:M:793:PRO:HD3	2.09	0.53
2:M:6:PHE:HD1	2:M:903:SER:HA	1.74	0.53
3:D:799:LYS:HE2	3:D:824:ASN:O	2.08	0.53
2:C:532:MET:CG	2:C:533:ASP:N	2.71	0.53
1:B:59:GLU:HG2	1:B:139:ASN:HD22	1.73	0.53
2:C:1105:LYS:O	2:C:1105:LYS:HD2	2.08	0.53
2:M:516:ARG:NH1	3:N:1068:LEU:HD22	2.23	0.53
3:N:1068:LEU:O	3:N:1072:ILE:HG12	2.09	0.53
3:N:117:ASP:CG	3:N:117:ASP:O	2.48	0.53
3:N:470:LEU:HD12	3:N:503:LEU:CD2	2.39	0.53
1:B:23:PHE:HZ	1:B:207:PRO:HB2	1.74	0.53
3:D:900:ILE:O	3:D:902:LEU:HD22	2.08	0.52
3:D:1045:MET:HG2	3:D:1073:SER:HA	1.91	0.52
2:C:403:SER:O	2:C:407:LYS:HG3	2.09	0.52
3:D:50:PHE:CD2	3:D:521:PRO:HA	2.44	0.52
3:D:706:PRO:HG2	6:H:15:C:O2	2.08	0.52
2:M:405:ARG:NH1	2:M:566:THR:HG21	2.24	0.52
2:M:683:ASN:HA	2:M:687:ALA:O	2.10	0.52
2:M:684:PHE:HD2	3:N:740:PHE:HD1	1.57	0.52
6:Y:6:C:N4	6:Y:7:G:C6	2.77	0.52
2:M:83:CYS:HA	2:M:88:LEU:HB2	1.92	0.52
3:N:1280:VAL:HB	3:N:1316:GLY:O	2.09	0.52
2:C:165:LEU:HB3	2:C:265:ARG:CZ	2.39	0.52
2:C:211:LEU:HD13	2:C:308:ARG:HA	1.91	0.52
2:M:843:HIS:CE1	2:M:887:GLU:OE2	2.62	0.52
2:C:250:ARG:HD3	2:C:253:ALA:HB3	1.89	0.52
3:D:553:ARG:O	3:D:557:LEU:HG	2.09	0.52
2:C:752:GLY:O	3:D:679:ARG:HG2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1395:LEU:HD23	3:N:1396:GLU:N	2.24	0.52
1:K:50:GLY:HA3	1:K:171:PHE:O	2.09	0.52
1:L:46:SER:O	1:L:148:VAL:HB	2.09	0.52
1:A:73:GLU:H	1:A:73:GLU:CD	2.11	0.52
2:M:230:ARG:HH11	2:M:230:ARG:HG2	1.75	0.52
2:C:398:THR:HB	2:C:399:ASN:HD22	1.73	0.52
3:D:1103:HIS:CD2	3:D:1104:GLU:H	2.25	0.52
3:D:486:ARG:O	3:D:490:ALA:HB2	2.08	0.52
3:D:618:LEU:HD12	3:D:1467:ILE:HD11	1.89	0.52
3:D:705:ALA:HB1	6:H:14:G:C2	2.27	0.52
2:M:878:SER:HB3	3:N:1029:ARG:HG3	1.91	0.52
2:C:1056:LYS:HD3	3:D:623:VAL:CG1	2.39	0.52
3:D:637:LEU:HD21	3:D:642:CYS:HA	1.91	0.52
2:C:264:PRO:HB3	2:C:289:THR:CB	2.39	0.52
3:N:539:ASP:N	3:N:539:ASP:OD2	2.36	0.52
3:D:1380:GLU:CG	3:D:1381:VAL:H	2.20	0.52
2:M:211:LEU:HD13	2:M:308:ARG:CG	2.39	0.52
2:M:758:ARG:CZ	2:M:788:THR:HB	2.39	0.52
2:C:71:TYR:H	2:C:71:TYR:HD2	1.54	0.52
2:C:644:VAL:HG22	2:C:647:GLN:OE1	2.09	0.52
1:K:49:PRO:HA	1:K:148:VAL:HG22	1.91	0.52
3:D:1045:MET:HE2	3:D:1076:GLY:CA	2.34	0.52
2:C:1038:TRP:O	2:C:1041:GLU:HB2	2.08	0.52
3:D:1094:LEU:HD22	3:D:1256:LEU:HD11	1.90	0.52
3:D:25:GLU:HG3	3:D:92:HIS:O	2.09	0.52
5:G:7:DA:H2''	5:G:8:DC:C6	2.44	0.52
2:C:846:LYS:HD3	6:H:14:G:OP1	2.09	0.52
7:I:5:DC:H6	7:I:5:DC:O5'	1.91	0.52
2:M:1008:ARG:HA	3:N:651:GLU:OE2	2.09	0.52
2:C:862:PRO:HA	2:C:975:TYR:CE1	2.45	0.52
2:C:260:LEU:HD12	2:C:261:ILE:N	2.24	0.52
3:D:30:GLU:HB3	3:D:40:GLU:CB	2.39	0.52
3:D:860:LEU:HB2	3:D:861:GLN:OE1	2.10	0.52
3:D:134:VAL:HG22	3:D:455:ARG:O	2.08	0.52
2:M:7:GLY:N	2:M:904:PRO:HD2	2.13	0.52
1:K:189:ARG:HG3	1:K:189:ARG:HH11	1.74	0.52
2:M:428:ARG:NH1	2:M:449:ILE:HG22	2.24	0.52
4:O:23:VAL:HG22	4:O:68:LEU:HD22	1.91	0.52
2:M:274:ARG:HG3	2:M:285:LEU:HD22	1.91	0.52
2:C:185:LYS:HD3	2:C:190:LYS:HZ3	1.75	0.52
3:N:785:ILE:HD11	3:N:939:PHE:CE2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1388:ARG:CD	3:D:1388:ARG:H	2.22	0.52
2:C:6:PHE:N	2:C:6:PHE:CD1	2.76	0.52
3:D:1440:PHE:CG	3:D:1441:GLN:N	2.77	0.52
3:D:1462:LEU:N	3:D:1462:LEU:HD23	2.25	0.52
3:D:630:VAL:HG12	3:D:631:ILE:N	2.23	0.52
2:C:1042:ALA:HB1	3:D:710:ARG:HB3	1.89	0.52
2:C:567:GLN:NE2	6:H:12:U:O2'	2.41	0.52
2:M:1062:GLY:O	2:M:1066:ALA:CB	2.57	0.52
2:M:395:LYS:HE2	2:M:403:SER:CB	2.31	0.52
3:N:1147:ARG:HH22	3:N:1369:GLU:CD	2.13	0.52
3:N:646:LYS:CB	3:N:688:TRP:CH2	2.93	0.52
2:M:436:GLY:HA2	2:M:539:VAL:HA	1.92	0.52
3:N:99:ALA:HA	3:N:458:ALA:CB	2.40	0.52
2:C:635:THR:O	2:C:705:ILE:HD12	2.09	0.52
2:M:77:PRO:HD2	2:M:91:GLN:O	2.09	0.52
2:C:305:PRO:HA	2:C:308:ARG:HB2	1.92	0.52
3:D:29:PRO:HD3	3:D:548:ILE:HG21	1.92	0.52
3:D:30:GLU:HB2	3:D:41:ARG:CG	2.39	0.52
3:D:764:LEU:HD11	3:D:766:ALA:HB3	1.91	0.52
2:M:6:PHE:CD1	2:M:903:SER:HA	2.45	0.52
2:M:714:ASP:OD1	2:M:820:ARG:HD2	2.09	0.52
2:C:66:LEU:HD12	2:C:99:GLN:O	2.10	0.52
2:M:12:VAL:HG22	2:M:13:ILE:HG23	1.90	0.52
3:D:613:ARG:HH11	3:D:616:GLN:CG	2.20	0.52
2:C:1030:GLN:OE1	3:D:628:ARG:HD3	2.09	0.52
5:G:6:DT:C4'	5:G:6:DT:OP1	2.54	0.52
2:M:397:GLU:C	2:M:633:GLN:HG2	2.30	0.52
3:N:1106:VAL:HG12	3:N:1107:VAL:N	2.24	0.52
3:N:697:GLY:O	3:N:699:VAL:HG13	2.09	0.52
2:M:685:GLU:OE2	3:N:783:ARG:NH1	2.43	0.52
6:Y:6:C:C4	6:Y:7:G:C6	2.98	0.52
3:N:804:LEU:HD12	3:N:830:ALA:O	2.10	0.52
2:M:422:ARG:HB3	7:Z:1:DG:N3	2.24	0.52
2:M:433:THR:HG22	2:M:437:ARG:NH1	2.24	0.52
3:D:1335:LEU:HD12	3:D:1335:LEU:O	2.09	0.52
3:D:714:GLN:HB3	3:D:765:SER:HB3	1.91	0.52
3:D:1084:THR:CA	3:D:1087:ARG:HG2	2.40	0.52
2:M:518:LYS:HB3	2:M:518:LYS:NZ	2.23	0.52
1:K:72:LYS:O	2:M:608:GLY:CA	2.58	0.52
1:A:161:ARG:HB2	1:A:161:ARG:NH1	2.25	0.52
3:D:1388:ARG:CD	3:D:1388:ARG:N	2.68	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:180:GLN:CD	2:C:937:ASP:HB2	2.29	0.52
3:N:1340:GLY:O	3:N:1344:VAL:HG22	2.10	0.52
2:M:524:VAL:HG12	2:M:525:SER:H	1.74	0.52
2:M:767:PRO:CB	2:M:772:ARG:HH21	2.22	0.52
3:N:405:ASP:HB2	3:N:423:ASP:OD1	2.09	0.52
1:K:206:THR:HG23	1:K:209:GLU:H	1.73	0.52
2:C:405:ARG:C	2:C:407:LYS:N	2.59	0.52
2:C:439:CYS:SG	2:C:541:SER:HB3	2.49	0.52
2:M:1031:ARG:HA	3:N:621:LYS:O	2.09	0.52
1:A:35:THR:HG21	1:B:43:ILE:HG12	1.92	0.52
3:N:1102:THR:O	3:N:1103:HIS:C	2.46	0.52
3:N:838:ARG:HG2	3:N:838:ARG:HH11	1.74	0.52
3:N:806:PHE:HE1	3:N:813:LEU:HB3	1.74	0.52
3:N:1441:GLN:CG	3:N:1442:ASN:N	2.73	0.52
5:X:12:DA:C2	5:X:13:DA:C2	2.97	0.52
2:M:83:CYS:HA	2:M:88:LEU:CB	2.39	0.52
2:C:987:ILE:HG12	3:D:948:THR:CG2	2.39	0.52
2:M:1014:SER:O	2:M:1017:THR:O	2.27	0.52
2:M:905:ILE:N	2:M:905:ILE:HD12	2.25	0.52
2:C:92:ALA:HB2	2:C:120:LEU:HD21	1.92	0.52
2:C:957:LYS:CG	2:C:961:GLU:HB2	2.40	0.52
3:D:794:GLN:OE1	3:D:905:PRO:HG2	2.09	0.52
2:M:387:SER:OG	2:M:388:ARG:HD2	2.10	0.52
2:M:384:GLU:O	2:M:388:ARG:HB2	2.09	0.52
3:N:820:GLU:HA	3:N:825:ALA:O	2.09	0.52
2:C:1037:VAL:CG1	2:C:1041:GLU:OE2	2.58	0.52
2:C:1043:TYR:HE1	3:D:710:ARG:O	1.92	0.52
2:M:405:ARG:NH2	2:M:566:THR:HG21	2.24	0.52
3:N:646:LYS:NZ	3:N:688:TRP:CD1	2.70	0.52
3:D:530:VAL:O	3:D:531:ASP:OD1	2.28	0.52
3:N:472:ALA:HA	3:N:475:LYS:HD3	1.91	0.52
3:D:1200:VAL:CG1	3:D:1201:CYS:N	2.72	0.52
2:C:862:PRO:HD2	2:C:925:TYR:OH	2.09	0.52
2:M:328:LEU:H	2:M:328:LEU:HD13	1.74	0.52
3:N:143:ASN:CG	3:N:145:VAL:H	2.12	0.52
3:D:42:ASP:OD2	3:D:48:ARG:NH2	2.33	0.52
2:M:674:VAL:CG2	2:M:869:VAL:HG13	2.39	0.52
2:C:724:ARG:HG2	2:C:724:ARG:O	2.09	0.52
2:C:729:LEU:HD13	3:D:675:ARG:HH11	1.74	0.52
2:C:532:MET:HE3	2:C:533:ASP:O	2.10	0.52
1:A:54:THR:HB	1:A:143:ARG:CG	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:577:PRO:HG3	2:M:993:PHE:CZ	2.45	0.52
1:K:206:THR:CG2	1:K:209:GLU:H	2.22	0.52
3:N:1326:THR:C	3:N:1327:ARG:HG3	2.29	0.52
3:D:1225:ALA:HA	3:D:1367:HIS:CE1	2.45	0.52
3:D:1435:LEU:HD13	3:D:1457:ASP:OD2	2.09	0.52
3:D:50:PHE:O	3:D:89:ARG:HD2	2.10	0.52
5:G:13:DA:O5'	5:G:13:DA:H2'	2.10	0.52
3:N:1088:THR:HG21	5:X:19:DG:C2	2.45	0.52
3:D:699:VAL:HG22	3:D:756:GLN:OE1	2.09	0.52
3:N:107:ASP:OD2	3:N:1445:HIS:HA	2.10	0.52
5:X:17:DA:H2'	5:X:17:DA:O5'	2.09	0.52
2:M:328:LEU:H	2:M:328:LEU:CD1	2.23	0.52
3:N:520:LEU:HD11	3:N:524:LEU:CD2	2.40	0.52
2:C:829:GLN:O	2:C:831:ARG:N	2.41	0.52
1:A:178:ALA:HB3	1:A:198:ARG:HG3	1.92	0.52
3:N:1166:LEU:HD12	3:N:1171:VAL:HG22	1.92	0.52
1:K:123:MET:C	1:K:125:PRO:HD3	2.30	0.52
3:N:563:PRO:HG3	3:N:566:ILE:HD12	1.92	0.52
1:B:28:LEU:HG	1:B:193:ASP:O	2.10	0.52
3:N:821:VAL:HG22	3:N:840:LYS:NZ	2.25	0.52
3:N:1087:ARG:HG2	3:N:1087:ARG:HH11	1.74	0.52
2:M:10:ARG:N	2:M:10:ARG:HH11	2.08	0.52
2:C:553:ASP:OD1	2:C:843:HIS:ND1	2.41	0.52
1:A:7:LYS:O	1:A:7:LYS:HG2	2.08	0.52
3:D:17:LYS:HG2	3:D:21:TRP:HE1	1.75	0.52
5:G:10:DA:H2''	5:G:11:DC:C6	2.45	0.52
5:G:16:DT:H1'	5:G:17:DA:OP1	2.09	0.52
2:M:1034:GLU:HG2	3:N:619:LEU:HD13	1.92	0.52
2:M:396:ASP:O	2:M:396:ASP:CG	2.48	0.52
3:N:1189:ARG:HH11	3:N:1189:ARG:HG3	1.74	0.52
2:C:634:GLY:O	2:C:705:ILE:HB	2.10	0.52
3:N:480:GLU:O	3:N:489:ARG:HB2	2.10	0.52
3:D:781:PRO:HG2	3:D:911:LEU:HD23	1.92	0.52
3:N:1267:ARG:HD3	3:N:1268:PRO:O	2.09	0.52
4:O:54:LEU:CG	4:O:58:PRO:HG2	2.40	0.52
2:M:841:ASN:ND2	2:M:843:HIS:ND1	2.57	0.52
2:C:729:LEU:CD1	3:D:675:ARG:HD2	2.40	0.52
2:C:902:ILE:O	2:C:904:PRO:HD3	2.10	0.52
3:D:1153:VAL:HA	3:N:561:GLY:HA3	1.92	0.52
1:K:56:VAL:HG12	1:K:57:TYR:N	2.25	0.52
3:N:445:ARG:HG2	3:N:445:ARG:HH11	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:523:ILE:O	2:M:523:ILE:HG23	2.10	0.52
2:C:426:ASP:HA	2:C:429:ASP:OD2	2.10	0.52
2:M:1078:GLU:HA	2:M:1078:GLU:OE1	2.10	0.52
3:D:1447:LEU:HD12	3:D:1447:LEU:N	2.24	0.52
3:D:608:SER:HA	3:D:1443:THR:HG21	1.92	0.52
3:D:22:SER:HG	3:D:92:HIS:CG	2.28	0.52
3:N:1486:VAL:CG2	4:O:29:GLN:HE22	2.23	0.52
3:N:703:ASN:CA	3:N:713:ILE:HG12	2.40	0.52
2:M:265:ARG:HG2	2:M:267:TYR:HB3	1.91	0.52
1:B:43:ILE:HG13	1:B:218:LEU:HD13	1.91	0.52
3:N:1229:ILE:HD11	3:N:1367:HIS:CB	2.40	0.52
3:N:626:SER:O	3:N:652:LEU:HD11	2.10	0.52
3:N:838:ARG:N	3:N:838:ARG:HD2	2.25	0.52
2:M:937:ASP:OD2	2:M:939:ARG:CG	2.58	0.52
2:M:939:ARG:HG3	2:M:975:TYR:CE2	2.45	0.52
3:D:834:THR:HG22	3:D:838:ARG:NH1	2.17	0.52
3:N:1445:HIS:CD2	3:N:1449:GLU:HB2	2.45	0.52
2:M:328:LEU:N	2:M:328:LEU:CD1	2.73	0.52
3:N:87:ARG:HB2	3:N:524:LEU:HD12	1.92	0.52
3:N:123:LEU:O	3:N:126:VAL:HB	2.10	0.52
3:N:1011:PHE:HB3	3:N:1021:TYR:CG	2.45	0.52
3:D:133:ILE:HB	3:D:153:LEU:O	2.08	0.52
2:C:855:VAL:HA	2:C:858:MET:HG2	1.90	0.52
1:A:104:GLU:OE1	1:A:137:ARG:HA	2.09	0.52
2:M:142:ARG:HE	2:M:325:ILE:HG23	1.74	0.52
3:N:899:LEU:HD13	3:N:914:LEU:HD23	1.92	0.52
2:M:162:ILE:HD12	2:M:172:ILE:HB	1.92	0.52
3:D:54:LYS:O	3:D:55:ASP:C	2.48	0.52
2:C:333:ILE:HD12	2:C:333:ILE:N	2.25	0.52
5:G:3:DC:O5'	5:G:3:DC:C6	2.63	0.52
1:L:62:LEU:CD1	1:L:63:HIS:H	2.21	0.52
1:B:101:LEU:HD12	1:B:114:PHE:N	2.25	0.52
2:C:957:LYS:CD	2:C:961:GLU:HB2	2.40	0.52
1:B:206:THR:HG23	1:B:208:LEU:N	2.25	0.52
2:C:626:ARG:O	2:C:638:ASP:HA	2.09	0.52
3:N:415:VAL:HG12	3:N:416:ALA:N	2.25	0.52
3:N:473:LEU:HA	3:N:476:GLU:HB2	1.92	0.52
2:C:124:ASP:OD1	2:C:125:GLY:N	2.43	0.51
2:C:39:ARG:H	2:C:39:ARG:HD2	1.75	0.51
2:C:1031:ARG:NE	3:D:621:LYS:HD2	2.25	0.51
2:C:1038:TRP:HD1	2:C:1041:GLU:OE2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:409:ARG:NH1	2:C:444:PRO:CG	2.73	0.51
2:C:460:ARG:HG2	2:C:485:TYR:CD2	2.45	0.51
3:D:1105:ILE:HG12	3:D:1374:GLN:NE2	2.25	0.51
2:M:442:GLU:OE2	2:M:543:ASN:HB3	2.09	0.51
3:N:729:HIS:ND1	3:N:730:PRO:HD2	2.25	0.51
2:M:494:TYR:N	2:M:494:TYR:CD1	2.77	0.51
3:D:696:HIS:CG	3:D:697:GLY:N	2.79	0.51
4:E:59:ASN:O	4:E:63:TRP:CD1	2.64	0.51
2:M:941:VAL:HA	2:M:944:LEU:HD12	1.91	0.51
2:C:634:GLY:O	2:C:705:ILE:N	2.36	0.51
3:N:502:PHE:CZ	3:N:1452:ILE:HG13	2.45	0.51
7:Z:12:DT:O5'	7:Z:12:DT:H6	1.93	0.51
3:D:1111:ASP:CG	3:D:1203:LYS:HD2	2.31	0.51
3:D:640:HIS:HE2	3:D:717:GLN:CD	2.13	0.51
2:M:881:ASN:O	2:M:884:GLN:HG3	2.10	0.51
3:D:1347:TYR:CZ	3:D:1351:GLU:HG2	2.45	0.51
3:D:1409:ALA:HA	2:M:370:ALA:CB	2.40	0.51
3:N:29:PRO:HD3	3:N:548:ILE:HG21	1.92	0.51
3:D:1127:GLU:O	3:D:1128:VAL:HG23	2.10	0.51
2:C:328:LEU:CB	2:C:433:THR:HB	2.40	0.51
2:C:395:LYS:HZ2	2:C:407:LYS:NZ	2.06	0.51
2:M:1092:LEU:HB3	2:M:1099:VAL:CG2	2.40	0.51
2:M:1103:ASP:CG	2:M:1104:GLU:H	2.13	0.51
2:M:1102:LEU:O	3:N:5:VAL:HG12	2.10	0.51
3:N:115:LEU:HD12	3:N:498:VAL:HG12	1.91	0.51
2:C:572:ILE:HG13	2:C:573:ARG:N	2.25	0.51
3:D:786:ILE:HA	3:D:789:LEU:HD12	1.92	0.51
3:N:1292:VAL:HG22	3:N:1311:LEU:CD1	2.40	0.51
2:C:265:ARG:C	2:C:267:TYR:H	2.11	0.51
3:D:1237:THR:HB	3:D:1359:GLN:CD	2.31	0.51
2:M:988:VAL:HG11	3:N:949:ILE:O	2.10	0.51
2:M:905:ILE:H	2:M:905:ILE:CD1	2.23	0.51
2:C:713:ARG:HB3	2:C:720:GLU:OE2	2.10	0.51
2:C:964:LYS:O	2:C:968:LEU:HG	2.11	0.51
3:N:434:ARG:HB3	3:N:434:ARG:NH1	2.24	0.51
2:M:578:VAL:HG13	2:M:671:ASN:CG	2.31	0.51
3:N:584:ASN:CG	3:N:590:PRO:HD2	2.30	0.51
1:K:101:LEU:HB2	1:K:114:PHE:HA	1.91	0.51
3:D:983:LEU:HG	3:D:984:THR:N	2.24	0.51
3:N:782:SER:O	3:N:786:ILE:HB	2.10	0.51
3:N:868:TYR:CE1	3:N:869:MET:HG3	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:34:TYR:CD2	3:N:34:TYR:N	2.78	0.51
2:C:1038:TRP:HA	2:C:1041:GLU:HB2	1.92	0.51
2:C:326:ASP:O	2:C:431:HIS:CD2	2.62	0.51
3:D:629:SER:HB3	3:D:726:ILE:CD1	2.40	0.51
6:H:12:U:C6	6:H:12:U:H3'	2.45	0.51
2:M:1001:VAL:HG21	5:X:24:DC:C5'	2.39	0.51
3:N:1466:VAL:O	3:N:1469:GLY:N	2.42	0.51
3:N:733:CYS:HB3	3:N:738:ALA:O	2.10	0.51
1:B:219:ARG:HA	1:B:222:LEU:HD12	1.92	0.51
1:A:42:ARG:HH12	1:B:34:VAL:CG1	2.23	0.51
3:N:1380:GLU:HB2	3:N:1420:LEU:HD11	1.92	0.51
5:X:3:DC:C2'	5:X:4:DA:OP2	2.53	0.51
7:Z:17:DA:O5'	7:Z:17:DA:H8	1.94	0.51
3:D:917:GLN:O	3:D:920:LEU:HB2	2.09	0.51
2:C:214:TYR:HE1	2:C:311:PHE:HB3	1.75	0.51
3:D:1211:MET:SD	3:D:1213:ARG:HG2	2.51	0.51
2:C:837:ASP:HA	2:C:999:HIS:CE1	2.45	0.51
3:D:1330:ILE:HD13	3:D:1347:TYR:CZ	2.46	0.51
2:M:336:VAL:HA	2:M:339:LEU:HD12	1.92	0.51
2:C:21:ILE:HD12	2:C:21:ILE:N	2.23	0.51
2:M:1075:ASP:HB3	4:O:32:ARG:NH2	2.25	0.51
1:L:122:ILE:HG22	1:L:124:ASN:H	1.76	0.51
3:N:112:ILE:HD12	3:N:116:LEU:HB2	1.93	0.51
1:A:33:GLY:O	1:A:195:LEU:HD22	2.10	0.51
3:N:529:GLN:HB2	3:N:535:PHE:CZ	2.46	0.51
3:N:545:ARG:NH1	3:N:545:ARG:HB3	2.26	0.51
2:C:52:PHE:CE2	2:C:68:PHE:CB	2.72	0.51
5:G:16:DT:C2'	5:G:17:DA:OP1	2.58	0.51
6:H:15:C:C6	6:H:15:C:OP2	2.56	0.51
7:I:11:DG:P	7:I:11:DG:H8	2.34	0.51
3:N:1031:ASN:OD1	3:N:1033:GLN:CB	2.57	0.51
3:N:1114:THR:CB	3:N:1195:GLN:HB3	2.36	0.51
4:E:28:GLN:HB3	4:E:32:ARG:NH1	2.20	0.51
3:N:1280:VAL:HG12	3:N:1318:TYR:N	2.26	0.51
3:N:160:GLU:HB3	3:N:165:LYS:HB2	1.92	0.51
1:L:80:LEU:HD12	1:L:83:LYS:HZ1	1.76	0.51
2:M:101:ILE:HG22	2:M:102:HIS:N	2.24	0.51
3:D:800:LYS:HD2	3:D:804:LEU:HD22	1.92	0.51
1:B:9:PRO:HB3	1:B:25:LEU:CG	2.40	0.51
2:C:668:LEU:O	2:C:993:PHE:CZ	2.64	0.51
3:N:114:THR:O	3:N:495:ARG:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:767:PRO:HB3	2:M:772:ARG:HH21	1.74	0.51
2:C:631:SER:HA	2:C:637:LEU:HD11	1.93	0.51
2:C:334:ARG:HB2	2:C:339:LEU:HD21	1.93	0.51
2:C:1115:LEU:HD22	3:D:88:TYR:CE1	2.46	0.51
2:C:405:ARG:HG3	2:C:442:GLU:OE1	2.09	0.51
2:C:460:ARG:NH1	2:C:462:ASP:HA	2.25	0.51
3:D:1263:PHE:HB3	3:D:1424:VAL:CG1	2.40	0.51
7:I:11:DG:H2''	7:I:12:DT:C7	2.40	0.51
2:M:397:GLU:OE2	2:M:632:ASN:HB2	2.10	0.51
3:N:715:ALA:HB3	3:N:764:LEU:CA	2.40	0.51
2:M:144:PRO:HA	2:M:163:ILE:O	2.11	0.51
7:Z:15:DT:C2'	7:Z:16:DG:OP2	2.57	0.51
3:N:520:LEU:HG	3:N:521:PRO:N	2.24	0.51
3:D:804:LEU:CD1	3:D:830:ALA:O	2.58	0.51
1:K:66:SER:O	1:K:75:VAL:HG23	2.11	0.51
2:C:17:PRO:O	2:C:20:GLU:HB3	2.10	0.51
2:C:726:ILE:HD13	2:C:734:LEU:HG	1.92	0.51
2:C:737:LEU:HD21	2:C:741:GLY:C	2.30	0.51
2:M:927:GLY:CA	2:M:930:LYS:HD3	2.36	0.51
3:D:1153:VAL:HG13	3:N:561:GLY:CA	2.41	0.51
2:M:516:ARG:CZ	3:N:1068:LEU:HB2	2.40	0.51
2:C:603:VAL:HB	2:C:647:GLN:H	1.75	0.51
2:C:134:ARG:NH2	2:C:392:SER:O	2.44	0.51
3:D:732:VAL:HG23	3:D:736:PHE:HE1	1.76	0.51
2:M:260:LEU:HB3	2:M:291:ALA:HB2	1.90	0.51
2:M:265:ARG:HD3	2:M:267:TYR:HB3	1.92	0.51
4:E:47:LYS:N	4:E:54:LEU:HD13	2.26	0.51
3:N:107:ASP:O	3:N:108:VAL:C	2.46	0.51
7:Z:2:DT:H2''	7:Z:3:DA:OP2	2.10	0.51
3:D:131:LYS:HG3	3:D:568:ARG:CG	2.41	0.51
2:C:869:VAL:HG22	2:C:870:ILE:N	2.24	0.51
3:N:1236:LEU:C	3:N:1237:THR:OG1	2.49	0.51
3:N:33:ASN:HB2	3:N:40:GLU:CD	2.30	0.51
2:M:71:TYR:HA	2:M:96:ALA:CB	2.41	0.51
2:M:211:LEU:HD13	2:M:308:ARG:HG3	1.92	0.51
1:L:71:VAL:HG22	1:L:132:LEU:HD12	1.93	0.51
1:A:197:LEU:HD23	1:A:197:LEU:N	2.26	0.51
3:N:680:GLN:O	3:N:683:ILE:HD12	2.10	0.51
1:K:92:PRO:HG3	1:K:146:ARG:HH22	1.76	0.51
2:M:833:LEU:HD12	2:M:996:LYS:HE2	1.92	0.51
3:D:1017:PHE:HA	3:D:1022:VAL:CG2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1377:LYS:O	3:D:1377:LYS:HG3	2.10	0.51
3:N:695:ILE:HD11	3:N:718:PRO:CB	2.31	0.51
3:N:704:ARG:HB3	3:N:736:PHE:HD2	1.76	0.51
2:C:854:PRO:HB2	2:C:856:GLU:CG	2.40	0.51
3:N:625:TYR:CE2	3:N:652:LEU:O	2.64	0.51
2:M:1102:LEU:HA	2:M:1107:ASN:O	2.11	0.51
1:K:54:THR:HB	1:K:143:ARG:CG	2.40	0.51
3:N:136:ASP:OD2	3:N:467:GLU:OE1	2.29	0.51
2:M:435:TYR:O	2:M:437:ARG:HD2	2.11	0.51
2:C:684:PHE:HB3	3:D:740:PHE:CE1	2.46	0.51
3:N:166:GLN:HA	3:N:198:ARG:CG	2.40	0.51
2:M:756:VAL:O	2:M:789:SER:HB3	2.10	0.51
2:M:691:SER:HB3	2:M:868:ASP:O	2.10	0.51
2:M:854:PRO:CB	2:M:856:GLU:HG3	2.41	0.51
3:D:925:GLU:HG2	3:D:926:LYS:N	2.24	0.51
1:A:26:GLU:HB2	1:A:27:PRO:HA	1.91	0.51
2:M:140:ILE:CD1	2:M:331:ARG:HH21	2.23	0.51
2:C:928:LYS:HZ1	2:C:932:GLU:HG3	1.73	0.51
3:D:1011:PHE:HB3	3:D:1021:TYR:CG	2.46	0.51
1:A:161:ARG:HB2	1:A:161:ARG:CZ	2.40	0.51
2:C:1103:ASP:CG	2:C:1104:GLU:N	2.63	0.51
2:M:430:VAL:HG13	2:M:430:VAL:O	2.10	0.51
2:C:456:ALA:HB1	2:C:538:GLN:O	2.11	0.51
3:D:1266:ARG:NH2	7:I:4:DG:O3'	2.44	0.51
3:N:1464:GLU:CG	3:N:1465:ASN:N	2.73	0.51
3:N:710:ARG:HG3	3:N:711:LEU:N	2.26	0.51
5:X:12:DA:N3	5:X:13:DA:C5	2.78	0.51
1:A:176:ARG:HG3	1:A:200:TRP:CE3	2.45	0.51
2:M:129:ILE:CD1	2:M:129:ILE:N	2.73	0.51
2:C:1046:ALA:HB1	3:D:1472:ILE:HG12	1.91	0.51
3:N:538:SER:O	3:N:540:LEU:N	2.44	0.51
3:N:128:TYR:HB3	3:N:129:PHE:CD1	2.46	0.51
1:A:65:PHE:HE1	2:C:799:ILE:HG21	1.76	0.51
3:D:924:MET:HB3	4:E:6:ILE:CG2	2.41	0.51
2:M:584:GLU:HB2	2:M:666:LEU:N	2.24	0.51
2:C:274:ARG:O	2:C:274:ARG:HD3	2.09	0.51
3:D:1198:TYR:OH	3:D:1432:LYS:NZ	2.36	0.51
1:K:56:VAL:CG2	1:K:142:VAL:HG12	2.38	0.51
3:N:1395:LEU:HA	3:N:1398:TRP:HD1	1.75	0.51
2:M:557:ARG:NH1	2:M:560:MET:HG3	2.26	0.51
3:D:148:GLU:HB3	3:D:151:GLN:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:195:LEU:HD12	1:K:196:THR:H	1.76	0.51
3:D:116:LEU:HD22	3:D:118:LEU:HD11	1.92	0.51
1:K:115:LEU:HD12	1:K:116:PRO:HD2	1.93	0.51
3:D:1383:ASP:CB	3:D:1416:ALA:HB3	2.41	0.51
3:D:502:PHE:HB3	3:D:509:PRO:HD3	1.92	0.51
2:C:1095:LEU:CG	3:D:603:LEU:HD13	2.40	0.51
2:M:1034:GLU:HA	2:M:1037:VAL:CG2	2.41	0.51
2:M:1059:ASP:O	2:M:1063:ARG:HD3	2.11	0.51
3:N:610:LYS:HA	3:N:615:ARG:NE	2.25	0.51
1:A:11:PHE:CA	1:A:25:LEU:HD12	2.40	0.51
3:N:1445:HIS:O	3:N:1446:VAL:C	2.49	0.51
5:X:12:DA:N3	5:X:13:DA:C4	2.78	0.51
2:C:678:PRO:HG2	3:D:947:ILE:HD11	1.93	0.51
2:C:286:SER:HB3	2:C:299:LYS:CE	2.41	0.51
2:M:553:ASP:HA	2:M:881:ASN:HA	1.93	0.51
2:M:532:MET:HG2	2:M:533:ASP:O	2.09	0.51
2:C:158:TYR:CD1	2:C:313:LEU:HD21	2.46	0.51
1:A:140:MET:SD	1:A:142:VAL:HG13	2.50	0.51
1:B:83:LYS:HE2	1:B:168:ASP:HB2	1.92	0.51
3:N:1399:ASP:O	3:N:1403:LEU:CG	2.59	0.51
3:D:127:LEU:HB2	3:D:132:TYR:HB2	1.92	0.51
2:C:612:VAL:HG22	2:C:622:GLU:HA	1.92	0.51
2:M:350:ARG:HA	2:M:353:ARG:NH2	2.26	0.51
2:M:26:TYR:CD2	2:M:121:MET:HB2	2.46	0.51
3:N:868:TYR:CD1	3:N:869:MET:HG3	2.46	0.51
1:K:226:SER:O	1:K:228:PRO:HD3	2.10	0.51
3:D:91:GLY:O	3:D:518:PRO:HA	2.11	0.51
7:I:3:DA:N3	7:I:4:DG:O4'	2.44	0.51
3:N:610:LYS:HE3	5:X:20:DC:OP2	2.11	0.51
3:N:695:ILE:O	3:N:698:LYS:HB2	2.11	0.51
6:Y:8:G:C3'	6:Y:8:G:C8	2.94	0.51
1:A:36:LEU:O	1:A:39:PRO:HD2	2.10	0.51
3:N:488:ARG:HG2	3:N:488:ARG:NH1	2.25	0.51
5:X:13:DA:C6	5:X:14:DG:C6	2.99	0.51
3:N:1274:ILE:HG21	3:N:1301:LYS:NZ	2.24	0.51
3:N:82:LYS:HB3	3:N:84:ILE:HG23	1.93	0.51
3:N:126:VAL:O	3:N:130:SER:HB3	2.11	0.51
1:L:179:PHE:HD2	1:L:179:PHE:N	2.09	0.51
1:L:33:GLY:O	1:L:195:LEU:HD22	2.11	0.51
2:C:674:VAL:CB	2:C:869:VAL:HG13	2.41	0.51
5:G:2:DT:C2'	5:G:3:DC:C6	2.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:806:PHE:O	3:D:808:THR:N	2.44	0.51
1:B:86:VAL:HG12	1:B:124:ASN:HB2	1.92	0.51
2:C:430:VAL:O	2:C:430:VAL:HG13	2.10	0.51
3:N:473:LEU:HA	3:N:476:GLU:OE2	2.10	0.51
2:C:483:VAL:HG12	2:C:484:VAL:N	2.25	0.51
2:C:39:ARG:O	2:C:41:ASN:N	2.43	0.50
3:D:897:TRP:C	3:D:900:ILE:CG1	2.80	0.50
2:C:328:LEU:N	2:C:328:LEU:HD12	2.26	0.50
3:D:1093:TYR:OH	3:D:1440:PHE:HE2	1.93	0.50
3:D:93:ILE:O	3:D:516:ALA:HA	2.11	0.50
5:G:5:DC:O5'	5:G:5:DC:H6	1.94	0.50
3:N:609:GLY:O	3:N:615:ARG:HD3	2.11	0.50
2:M:1056:LYS:CE	3:N:751:LEU:HD11	2.21	0.50
3:N:754:PHE:HD1	4:O:28:GLN:OE1	1.93	0.50
2:M:267:TYR:CZ	2:M:273:GLY:HA3	2.45	0.50
5:X:9:DC:H2'	5:X:10:DA:C8	2.46	0.50
7:Z:1:DG:C3'	7:Z:1:DG:OP3	2.54	0.50
2:C:690:ILE:HG22	2:C:851:LYS:O	2.11	0.50
3:N:127:LEU:HB3	3:N:132:TYR:HD1	1.75	0.50
3:N:160:GLU:HA	3:N:163:TYR:CE1	2.46	0.50
2:C:1045:ALA:HB2	3:D:763:MET:HE3	1.91	0.50
3:D:799:LYS:HD3	3:D:826:PRO:HG3	1.93	0.50
2:C:191:PHE:HB2	2:C:241:LEU:CD1	2.39	0.50
3:N:1168:MET:HG3	3:N:1172:HIS:NE2	2.25	0.50
1:K:174:VAL:HG22	1:K:201:THR:CG2	2.41	0.50
3:N:1122:LEU:HD13	3:N:1185:GLU:HA	1.94	0.50
2:M:894:GLY:O	2:M:898:GLY:N	2.44	0.50
2:C:894:GLY:O	2:C:898:GLY:N	2.43	0.50
3:N:1348:LEU:HD13	3:N:1348:LEU:H	1.75	0.50
4:O:41:GLU:N	4:O:42:PRO:CD	2.74	0.50
3:D:902:LEU:N	3:D:902:LEU:CD2	2.67	0.50
2:C:394:PHE:CE2	5:G:25:DG:H4'	2.46	0.50
3:D:728:LEU:HG	3:D:729:HIS:O	2.11	0.50
3:D:744:GLN:NE2	5:G:21:DG:N2	2.51	0.50
5:G:7:DA:C2'	5:G:8:DC:OP2	2.59	0.50
3:N:598:ARG:HD3	6:Y:8:G:H4'	1.92	0.50
2:M:685:GLU:HG2	3:N:739:ASP:HB2	1.93	0.50
5:X:27:DC:H2'	5:X:28:DG:H8	1.76	0.50
3:N:583:ASP:CG	3:N:586:ARG:HG2	2.32	0.50
7:Z:6:DT:C2'	7:Z:7:DT:H72	2.41	0.50
3:N:87:ARG:O	3:N:524:LEU:HD11	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:132:TYR:CD2	3:N:154:THR:CB	2.94	0.50
3:D:730:PRO:HG3	3:D:939:PHE:HZ	1.76	0.50
3:D:33:ASN:ND2	3:D:35:ARG:HH12	2.08	0.50
3:D:924:MET:N	4:E:7:ASP:OD2	2.44	0.50
1:L:76:VAL:O	1:L:80:LEU:HB2	2.11	0.50
3:N:860:LEU:HA	3:N:877:PRO:CB	2.33	0.50
4:E:40:LEU:CD2	4:E:67:GLU:HA	2.31	0.50
2:C:64:LEU:CD2	2:C:359:MET:HG3	2.34	0.50
2:M:942:GLU:O	2:M:946:ARG:HG3	2.11	0.50
1:K:88:ARG:HH12	1:K:90:LEU:CD1	2.24	0.50
2:M:775:ARG:CZ	2:M:782:ALA:HB1	2.41	0.50
3:N:34:TYR:HD2	3:N:34:TYR:N	2.10	0.50
3:D:566:ILE:HA	3:D:569:ASN:HB2	1.93	0.50
3:D:2:LYS:O	3:D:2:LYS:HG2	2.10	0.50
2:C:1030:GLN:OE1	5:G:22:DA:H5''	2.11	0.50
3:D:1443:THR:O	3:D:1447:LEU:HD22	2.11	0.50
3:D:1468:LEU:HD22	3:D:1470:ARG:HB2	1.94	0.50
3:D:582:LEU:HD23	3:D:603:LEU:CD1	2.42	0.50
3:D:704:ARG:HG2	3:D:736:PHE:CB	2.42	0.50
6:H:12:U:C6	6:H:12:U:C3'	2.95	0.50
2:M:1012:PRO:HD3	2:M:1026:GLN:CG	2.40	0.50
3:N:728:LEU:HG	3:N:729:HIS:N	2.26	0.50
4:E:36:LYS:HB2	4:E:95:VAL:CG2	2.41	0.50
4:E:57:ASP:N	4:E:58:PRO:HD3	2.26	0.50
3:N:807:ALA:HA	3:N:833:GLU:CG	2.42	0.50
3:N:133:ILE:O	3:N:152:LEU:HB2	2.10	0.50
2:C:939:ARG:HB3	2:C:982:PRO:CG	2.41	0.50
3:D:550:ARG:N	3:D:550:ARG:HE	2.10	0.50
2:C:831:ARG:CZ	2:C:1004:LYS:NZ	2.73	0.50
2:C:897:LEU:HD21	2:C:921:ALA:CA	2.42	0.50
3:N:554:LEU:O	3:N:558:LEU:HG	2.11	0.50
3:N:1115:THR:CG2	3:N:1151:ARG:NH2	2.75	0.50
3:N:575:GLN:O	3:N:578:VAL:HB	2.11	0.50
2:C:438:ILE:HD12	2:C:438:ILE:N	2.26	0.50
3:D:1433:SER:HB2	3:D:1457:ASP:OD2	2.11	0.50
2:C:1016:ILE:CG2	3:D:526:PRO:HG3	2.42	0.50
2:M:1008:ARG:HH21	2:M:1012:PRO:N	2.10	0.50
2:M:1053:LEU:HD23	2:M:1053:LEU:H	1.76	0.50
3:N:6:ARG:HH11	3:N:6:ARG:HG2	1.76	0.50
3:N:513:ILE:C	3:N:513:ILE:HD12	2.31	0.50
7:Z:14:DG:C2'	7:Z:15:DT:OP2	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:869:VAL:CG2	2:C:870:ILE:N	2.74	0.50
2:C:312:ALA:CB	2:C:318:PRO:HG2	2.36	0.50
2:C:996:LYS:C	2:C:997:LEU:HD22	2.32	0.50
2:C:1081:VAL:CG2	2:C:1086:ARG:HH21	2.24	0.50
4:E:41:GLU:HG2	4:E:42:PRO:CD	2.38	0.50
2:C:182:VAL:CG1	2:C:193:LEU:HD13	2.41	0.50
3:D:1399:ASP:O	3:D:1403:LEU:HD12	2.11	0.50
3:N:1393:GLN:HB2	3:N:1398:TRP:HZ2	1.76	0.50
1:B:56:VAL:HG12	1:B:57:TYR:N	2.26	0.50
3:D:1128:VAL:O	3:D:1129:THR:HG22	2.12	0.50
3:D:820:GLU:HA	3:D:825:ALA:O	2.12	0.50
3:N:420:VAL:HG12	3:N:421:LEU:N	2.26	0.50
2:C:431:HIS:HD2	2:C:433:THR:H	1.58	0.50
3:D:103:TRP:CD2	3:D:1444:THR:HG23	2.46	0.50
3:D:498:VAL:HG12	3:D:502:PHE:CE1	2.44	0.50
3:N:761:ILE:O	3:N:767:HIS:ND1	2.45	0.50
3:N:15:PRO:O	3:N:19:ARG:HG2	2.11	0.50
2:M:861:LEU:HD22	2:M:863:ASP:CB	2.29	0.50
2:C:1046:ALA:CB	3:D:1476:THR:H	2.25	0.50
3:N:54:LYS:HG3	3:N:55:ASP:N	2.26	0.50
3:D:133:ILE:HG12	3:D:456:MET:CB	2.42	0.50
3:N:28:LYS:CB	3:N:41:ARG:HD2	2.42	0.50
3:D:1197:ARG:CG	3:D:1198:TYR:H	2.25	0.50
1:A:57:TYR:CE1	1:A:163:ASN:HB2	2.45	0.50
2:C:580:MET:HB3	2:C:584:GLU:CD	2.32	0.50
2:C:355:VAL:HG13	2:C:356:ARG:N	2.27	0.50
3:N:644:LEU:HD12	3:N:645:PRO:HD2	1.94	0.50
3:N:840:LYS:HB3	3:N:841:TYR:CZ	2.47	0.50
3:D:1059:SER:CB	3:D:1065:LEU:HA	2.42	0.50
2:C:502:PRO:O	2:C:503:LEU:HG	2.12	0.50
2:M:410:ILE:N	2:M:453:THR:O	2.40	0.50
3:D:966:GLU:O	3:D:969:ARG:HG2	2.11	0.50
3:N:867:ARG:C	3:N:867:ARG:HD2	2.31	0.50
2:C:121:MET:CE	2:C:125:GLY:HA2	2.42	0.50
3:D:1101:VAL:HG13	3:D:1428:ALA:CB	2.33	0.50
3:D:704:ARG:NH1	3:D:738:ALA:HB2	2.26	0.50
5:G:24:DC:C2'	5:G:25:DG:C8	2.94	0.50
3:D:704:ARG:HH22	6:H:14:G:H2'	1.75	0.50
2:M:1013:TYR:CG	2:M:1063:ARG:NH2	2.80	0.50
3:N:711:LEU:C	3:N:713:ILE:H	2.14	0.50
2:M:164:PRO:HD2	2:M:170:PRO:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1103:HIS:CG	3:N:1104:GLU:N	2.80	0.50
3:D:696:HIS:NE2	4:E:59:ASN:N	2.60	0.50
2:M:944:LEU:O	2:M:948:GLU:HG3	2.12	0.50
3:N:810:GLU:HA	3:N:813:LEU:HD23	1.93	0.50
3:N:134:VAL:HG22	3:N:455:ARG:O	2.12	0.50
2:C:930:LYS:HD2	2:C:960:GLU:CD	2.31	0.50
2:C:144:PRO:HB2	2:C:267:TYR:CE1	2.47	0.50
3:D:953:ASP:O	3:D:955:VAL:HG23	2.12	0.50
4:O:54:LEU:O	4:O:58:PRO:HD2	2.12	0.50
1:L:25:LEU:CD2	1:L:195:LEU:HB3	2.41	0.50
3:D:550:ARG:O	3:D:554:LEU:N	2.44	0.50
2:C:140:ILE:HG22	2:C:333:ILE:HG13	1.93	0.50
1:A:56:VAL:HG12	1:A:57:TYR:N	2.27	0.50
1:K:99:LEU:N	1:K:99:LEU:HD12	2.27	0.50
1:A:148:VAL:HG12	1:A:149:GLY:N	2.27	0.50
1:K:58:ILE:CD1	1:K:140:MET:HB3	2.42	0.50
3:N:550:ARG:O	3:N:554:LEU:HB2	2.11	0.50
3:N:470:LEU:N	3:N:470:LEU:HD23	2.27	0.50
3:N:1153:VAL:O	3:N:1160:LEU:HG	2.12	0.50
3:D:1468:LEU:HD22	3:D:1470:ARG:CB	2.41	0.50
3:D:470:LEU:HB2	3:D:503:LEU:HD21	1.93	0.50
6:H:15:C:H3'	6:H:16:A:C5'	2.41	0.50
4:O:62:THR:HA	4:O:65:MET:SD	2.52	0.50
6:Y:4:G:O2'	6:Y:5:C:H5'	2.12	0.50
3:N:15:PRO:HA	3:N:18:ILE:CG1	2.41	0.50
2:M:861:LEU:HD21	2:M:925:TYR:CZ	2.47	0.50
3:N:1389:LEU:HD11	3:N:1390:LEU:HG	1.94	0.50
3:D:1107:VAL:O	3:D:1218:GLY:N	2.45	0.50
3:D:899:LEU:CD2	3:D:917:GLN:HB3	2.32	0.50
2:C:129:ILE:HD13	2:C:129:ILE:H	1.76	0.50
2:M:987:ILE:HG12	3:N:948:THR:CG2	2.42	0.50
2:M:706:GLU:HG2	2:M:708:TYR:OH	2.12	0.50
2:C:298:PHE:N	2:C:298:PHE:CD1	2.77	0.50
3:N:850:LEU:HD22	3:N:884:ARG:NH2	2.27	0.50
2:M:759:THR:HB	2:M:785:VAL:HG11	1.94	0.50
2:M:151:ASP:HB2	2:M:157:ARG:O	2.12	0.50
2:M:500:ASN:OD1	3:N:1067:VAL:HG23	2.12	0.50
2:C:753:ASP:O	2:C:792:VAL:N	2.38	0.50
1:L:57:TYR:HB2	1:L:164:ALA:HB2	1.93	0.50
2:M:199:VAL:CG1	2:M:235:LEU:HG	2.42	0.50
1:B:50:GLY:O	1:B:146:ARG:HA	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1017:PHE:HA	3:D:1022:VAL:HG21	1.94	0.50
2:C:575:GLN:C	2:C:667:ALA:HB1	2.32	0.50
3:D:596:SER:O	3:D:598:ARG:N	2.43	0.50
2:C:490:GLU:OE1	2:C:493:ARG:NH1	2.45	0.50
2:C:1090:LYS:CE	3:D:90:MET:HG3	2.42	0.50
3:N:757:ALA:O	3:N:761:ILE:HG13	2.11	0.50
4:E:26:ARG:NH2	4:E:37:ASN:O	2.44	0.50
1:K:180:GLN:OE1	2:M:929:ARG:NE	2.44	0.50
1:K:178:ALA:HB3	1:K:198:ARG:HG3	1.94	0.50
3:N:107:ASP:CG	3:N:1445:HIS:HA	2.31	0.50
2:M:437:ARG:NH1	2:M:491:GLU:OE2	2.44	0.50
2:C:86:LYS:HD3	2:C:813:VAL:HB	1.93	0.50
3:N:1275:SER:O	3:N:1276:GLU:HB2	2.11	0.50
3:N:1271:LYS:HZ2	3:N:1331:ASP:HB2	1.75	0.50
3:N:568:ARG:O	3:N:572:ARG:HG3	2.12	0.50
3:D:774:SER:HB3	3:D:1362:LYS:O	2.11	0.50
3:D:860:LEU:O	3:D:876:SER:OG	2.30	0.50
3:D:1083:ASP:O	3:D:1087:ARG:CD	2.59	0.50
2:M:690:ILE:CG1	2:M:691:SER:N	2.74	0.50
3:D:919:PHE:CZ	3:D:1211:MET:HG3	2.46	0.50
3:N:877:PRO:O	3:N:880:ILE:HG22	2.12	0.50
1:A:198:ARG:HH22	2:C:932:GLU:HB3	1.77	0.50
2:M:187:ASN:O	2:M:188:LYS:HG3	2.11	0.50
3:D:679:ARG:HB2	3:D:682:ASP:OD1	2.11	0.50
4:O:37:ASN:HD22	4:O:37:ASN:H	1.54	0.50
3:N:394:LEU:HD23	3:N:394:LEU:N	2.27	0.50
2:M:1057:SER:HB2	3:N:622:ARG:O	2.11	0.50
2:C:1093:GLN:HA	2:C:1097:LEU:O	2.11	0.50
2:C:455:LEU:HD12	2:C:456:ALA:O	2.12	0.50
3:D:502:PHE:CD2	3:D:1452:ILE:HG23	2.47	0.50
3:N:1033:GLN:CD	3:N:1240:THR:HG22	2.32	0.50
1:A:34:VAL:HG13	1:B:42:ARG:HE	1.77	0.50
2:M:1092:LEU:O	2:M:1095:LEU:O	2.30	0.50
4:E:28:GLN:C	4:E:32:ARG:NH1	2.65	0.50
2:M:937:ASP:CB	2:M:940:GLU:HG3	2.42	0.50
2:M:456:ALA:HB1	2:M:538:GLN:O	2.12	0.50
2:C:630:ARG:HG2	2:C:826:TYR:HE2	1.74	0.50
2:M:119:PRO:HG2	2:M:386:PHE:CE2	2.47	0.50
3:N:81:THR:HG22	3:N:82:LYS:H	1.75	0.50
4:O:54:LEU:CD2	4:O:63:TRP:NE1	2.70	0.50
2:C:146:VAL:HG22	2:C:162:ILE:HG12	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:827:ILE:HD12	3:D:827:ILE:N	2.26	0.50
2:C:768:THR:O	2:C:772:ARG:HB2	2.10	0.50
2:C:460:ARG:NH2	2:C:468:ARG:NH1	2.58	0.49
3:N:714:GLN:HB3	3:N:765:SER:HB2	1.94	0.49
3:N:750:PRO:CB	3:N:756:GLN:HA	2.42	0.49
2:M:1104:GLU:OE1	3:N:6:ARG:HD3	2.11	0.49
2:M:862:PRO:HD3	2:M:973:VAL:O	2.12	0.49
7:Z:11:DG:OP2	7:Z:11:DG:C8	2.53	0.49
2:M:129:ILE:CG2	2:M:130:ASN:H	2.21	0.49
3:D:134:VAL:HG12	3:D:152:LEU:CB	2.42	0.49
3:N:843:PHE:O	3:N:866:VAL:HG13	2.12	0.49
2:C:66:LEU:HD22	2:C:372:LEU:HD23	1.93	0.49
2:M:39:ARG:O	2:M:41:ASN:N	2.44	0.49
3:N:785:ILE:CD1	3:N:785:ILE:H	2.24	0.49
1:A:54:THR:HB	1:A:143:ARG:HG3	1.94	0.49
1:B:59:GLU:HB2	1:B:137:ARG:HH22	1.77	0.49
3:N:101:HIS:CE1	3:N:103:TRP:HB2	2.46	0.49
3:N:564:GLU:HA	3:N:567:ILE:HD12	1.94	0.49
2:C:515:ALA:O	2:C:516:ARG:HD3	2.11	0.49
2:C:98:LEU:H	2:C:98:LEU:HD12	1.77	0.49
2:C:603:VAL:O	2:C:646:GLY:HA2	2.12	0.49
3:D:563:PRO:O	3:D:563:PRO:HG2	2.12	0.49
3:D:581:LEU:H	3:D:581:LEU:HD23	1.77	0.49
2:M:640:ARG:HG2	2:M:640:ARG:NH1	2.26	0.49
3:D:1031:ASN:CB	3:D:1034:GLN:CB	2.89	0.49
2:C:328:LEU:HB2	2:C:433:THR:CG2	2.42	0.49
3:D:50:PHE:CG	3:D:522:PRO:HG3	2.46	0.49
3:D:743:ASP:HA	6:H:14:G:C1'	2.42	0.49
7:I:8:DG:H2"	7:I:9:DT:C6	2.47	0.49
2:M:846:LYS:HE3	6:Y:14:G:OP1	2.12	0.49
3:N:634:GLY:O	3:N:637:LEU:HB3	2.12	0.49
3:N:14:SER:HB2	3:N:17:LYS:HB2	1.93	0.49
3:N:133:ILE:HG22	3:N:134:VAL:N	2.27	0.49
3:N:97:THR:HG21	3:N:459:GLU:HB2	1.94	0.49
3:N:472:ALA:HA	3:N:475:LYS:CD	2.43	0.49
3:N:486:ARG:O	3:N:490:ALA:CB	2.59	0.49
5:X:3:DC:C6	5:X:3:DC:O5'	2.64	0.49
3:D:1116:ASN:O	3:D:1193:THR:CB	2.60	0.49
3:D:1472:ILE:C	3:D:1474:ALA:H	2.15	0.49
2:M:113:VAL:CG1	2:M:373:VAL:HG11	2.41	0.49
2:C:748:GLU:HA	2:C:799:ILE:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:660:LYS:CD	3:D:694:VAL:HG22	2.32	0.49
3:N:1236:LEU:CD2	3:N:1359:GLN:HG3	2.42	0.49
2:C:758:ARG:HG2	2:C:788:THR:OG1	2.12	0.49
2:M:704:HIS:O	2:M:828:ALA:HA	2.12	0.49
2:C:943:VAL:HG23	2:C:985:GLY:N	2.25	0.49
1:B:124:ASN:N	1:B:125:PRO:HD3	2.26	0.49
2:C:1013:TYR:CD1	2:C:1020:PRO:HG3	2.47	0.49
1:B:21:GLY:O	1:B:23:PHE:CE2	2.64	0.49
3:N:608:SER:C	3:N:612:GLY:HA3	2.32	0.49
2:C:1016:ILE:HD13	2:C:1016:ILE:H	1.76	0.49
2:C:324:ASP:O	2:C:327:HIS:HB2	2.12	0.49
3:D:1440:PHE:CE2	5:G:17:DA:OP2	2.65	0.49
3:D:1438:ALA:CB	3:D:1447:LEU:HD11	2.41	0.49
3:N:1465:ASN:HD21	3:N:1470:ARG:NE	2.10	0.49
3:N:630:VAL:HG12	3:N:631:ILE:N	2.27	0.49
3:N:697:GLY:CA	3:N:717:GLN:OE1	2.61	0.49
6:Y:10:G:O2'	6:Y:11:C:H5'	2.12	0.49
6:Y:11:C:O2'	6:Y:12:U:H5'	2.13	0.49
6:Y:8:G:H2'	6:Y:9:C:O5'	2.13	0.49
3:N:1372:VAL:CG1	3:N:1373:ARG:N	2.75	0.49
2:M:1095:LEU:CD2	3:N:603:LEU:CD1	2.83	0.49
3:N:501:ALA:HB3	3:N:1452:ILE:HG22	1.92	0.49
1:L:52:ALA:HB2	1:L:170:VAL:O	2.12	0.49
3:N:1375:MET:SD	3:N:1424:VAL:N	2.86	0.49
2:C:157:ARG:HD3	2:C:314:THR:HG22	1.94	0.49
3:N:1399:ASP:O	3:N:1403:LEU:HD12	2.11	0.49
3:N:821:VAL:HG22	3:N:840:LYS:HZ1	1.77	0.49
2:C:938:LYS:NZ	2:C:938:LYS:HB2	2.26	0.49
2:M:728:HIS:NE2	2:M:775:ARG:NH1	2.59	0.49
1:K:29:GLU:HB2	1:K:32:PHE:CE1	2.48	0.49
2:M:597:ALA:HB2	2:M:655:LEU:HD21	1.95	0.49
3:D:10:ILE:CD1	3:D:1447:LEU:HG	2.43	0.49
3:D:1435:LEU:CB	3:D:1464:GLU:HB3	2.42	0.49
2:M:1040:LEU:HD23	2:M:1049:LEU:CB	2.42	0.49
2:M:405:ARG:NH2	2:M:409:ARG:NH2	2.61	0.49
3:N:731:LEU:HD22	3:N:779:ALA:O	2.12	0.49
3:N:95:LEU:HB2	3:N:515:GLU:CA	2.42	0.49
2:C:926:PHE:HE2	2:C:960:GLU:OE1	1.96	0.49
2:C:261:ILE:CD1	2:C:262:ALA:H	2.26	0.49
3:N:62:LYS:HD2	3:N:75:ARG:NH1	2.26	0.49
1:L:186:LEU:O	1:L:188:GLN:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:711:LEU:C	3:D:713:ILE:H	2.15	0.49
3:N:187:LYS:CE	3:N:199:LEU:HG	2.42	0.49
1:L:80:LEU:HD11	3:N:842:VAL:HG12	1.94	0.49
3:N:880:ILE:HD13	3:N:880:ILE:O	2.11	0.49
3:N:883:ALA:O	3:N:886:VAL:HB	2.13	0.49
2:M:444:PRO:O	2:M:449:ILE:HD12	2.11	0.49
3:D:1380:GLU:CG	3:D:1381:VAL:N	2.75	0.49
2:M:607:ASP:HB3	2:M:610:ARG:H	1.77	0.49
2:M:1068:GLU:O	2:M:1071:ILE:HB	2.13	0.49
3:N:1115:THR:HG21	3:N:1151:ARG:NH2	2.27	0.49
3:N:781:PRO:HB2	3:N:786:ILE:HG13	1.95	0.49
1:A:2:LEU:O	1:A:6:LEU:HB3	2.11	0.49
1:B:62:LEU:HD12	1:B:62:LEU:H	1.77	0.49
3:N:935:LYS:HG2	3:N:936:TYR:N	2.28	0.49
2:C:18:LEU:HD22	2:C:590:ASP:HB2	1.95	0.49
3:D:1466:VAL:HG12	3:D:1467:ILE:N	2.27	0.49
3:D:16:GLU:CD	3:D:16:GLU:H	2.16	0.49
3:D:50:PHE:C	3:D:86:ARG:HA	2.32	0.49
2:M:405:ARG:C	2:M:407:LYS:H	2.16	0.49
3:N:1219:GLU:OE1	4:O:17:TYR:HE2	1.95	0.49
3:N:1484:THR:CA	4:O:76:GLY:O	2.60	0.49
7:Z:12:DT:C2'	7:Z:13:DA:C8	2.89	0.49
3:D:916:TYR:O	3:D:920:LEU:HG	2.13	0.49
3:N:160:GLU:HG2	3:N:165:LYS:CG	2.37	0.49
2:M:115:LEU:HB3	2:M:375:SER:OG	2.12	0.49
3:D:960:LYS:CE	3:D:964:LEU:CD1	2.79	0.49
3:D:1209:LEU:HD21	4:E:16:LYS:HE3	1.95	0.49
1:L:24:VAL:HG22	1:L:196:THR:HB	1.93	0.49
2:C:101:ILE:HG23	2:C:107:LEU:HD22	1.95	0.49
2:C:762:LYS:HZ2	2:C:786:LYS:HA	1.78	0.49
2:M:42:VAL:CA	2:M:46:ALA:HB2	2.41	0.49
2:C:71:TYR:HA	2:C:96:ALA:HB2	1.94	0.49
2:C:733:ALA:HB2	3:D:679:ARG:NH1	2.26	0.49
2:C:583:LEU:O	2:C:587:VAL:HG23	2.11	0.49
3:D:1153:VAL:CG1	3:N:560:GLN:O	2.61	0.49
1:K:102:LYS:HA	1:K:138:LEU:O	2.13	0.49
1:L:159:LYS:N	1:L:159:LYS:HE3	2.27	0.49
3:N:1415:VAL:HG23	3:N:1415:VAL:O	2.11	0.49
2:C:412:ALA:HB3	2:C:451:LEU:HB3	1.95	0.49
3:N:1493:LYS:O	3:N:1497:GLU:HG2	2.13	0.49
2:C:1035:MET:CG	5:G:20:DC:H5'	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1223:ILE:HD11	3:D:1462:LEU:CD1	2.42	0.49
3:D:4:GLU:HG2	3:D:1470:ARG:NE	2.28	0.49
3:D:615:ARG:HH22	3:D:1096:ARG:NH1	2.10	0.49
3:D:705:ALA:CB	3:D:706:PRO:CD	2.71	0.49
5:G:24:DC:H2'	5:G:25:DG:C8	2.48	0.49
6:H:11:C:H2'	6:H:12:U:C5	2.47	0.49
2:M:1043:TYR:CZ	3:N:710:ARG:HD3	2.48	0.49
3:N:1462:LEU:HD22	3:N:1472:ILE:CG2	2.42	0.49
2:M:1053:LEU:CD1	3:N:1469:GLY:HA2	2.40	0.49
3:N:764:LEU:HB3	3:N:767:HIS:ND1	2.28	0.49
1:A:28:LEU:O	1:A:192:LEU:HD22	2.11	0.49
2:M:861:LEU:HG	2:M:862:PRO:HD2	1.93	0.49
2:M:973:VAL:O	2:M:974:LEU:CD1	2.50	0.49
3:N:1280:VAL:HG12	3:N:1318:TYR:CA	2.43	0.49
4:O:23:VAL:HG22	4:O:68:LEU:CD2	2.43	0.49
2:C:352:ALA:C	2:C:355:VAL:HG12	2.32	0.49
3:D:128:TYR:CE2	3:D:458:ALA:CB	2.96	0.49
1:A:48:ILE:HD12	1:A:174:VAL:CG2	2.42	0.49
2:C:603:VAL:HB	2:C:647:GLN:N	2.27	0.49
3:N:1160:LEU:N	3:N:1160:LEU:HD23	2.27	0.49
2:C:704:HIS:O	2:C:828:ALA:HA	2.11	0.49
1:K:117:VAL:O	1:K:120:VAL:HG12	2.13	0.49
2:M:561:GLY:O	2:M:565:GLN:HG3	2.13	0.49
2:C:47:ALA:HB2	2:C:345:ARG:HH11	1.78	0.49
2:C:460:ARG:HG3	2:C:460:ARG:O	2.12	0.49
3:D:1436:SER:O	3:D:1439:SER:OG	2.27	0.49
2:C:422:ARG:HG2	7:I:1:DG:C6	2.47	0.49
3:N:704:ARG:NE	3:N:706:PRO:HD2	2.25	0.49
3:N:764:LEU:CD2	3:N:767:HIS:CE1	2.88	0.49
1:A:9:PRO:HB3	1:A:25:LEU:CD2	2.43	0.49
1:A:38:ASN:N	1:A:39:PRO:CD	2.76	0.49
3:N:1094:LEU:HD12	3:N:1097:LYS:CD	2.37	0.49
3:D:1112:CYS:SG	3:D:1201:CYS:N	2.78	0.49
3:D:916:TYR:CE2	3:D:920:LEU:HD11	2.47	0.49
3:N:1283:ILE:HD12	3:N:1315:ASP:OD2	2.13	0.49
3:D:1168:MET:HE3	3:D:1171:VAL:HB	1.94	0.49
3:D:155:ASP:O	3:D:159:ARG:HB2	2.12	0.49
2:M:630:ARG:HD2	2:M:631:SER:O	2.12	0.49
2:C:36:PRO:CG	2:C:70:GLU:HB3	2.37	0.49
3:N:899:LEU:HD22	3:N:917:GLN:HB3	1.95	0.49
2:C:532:MET:HG2	2:C:533:ASP:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1154:GLU:OE2	3:N:563:PRO:HA	2.12	0.49
2:C:998:TYR:HE2	2:C:1000:MET:HG3	1.78	0.49
1:B:66:SER:O	1:B:75:VAL:HG23	2.13	0.49
1:B:79:ILE:HA	1:B:82:LEU:CD1	2.43	0.49
2:C:941:VAL:HA	2:C:944:LEU:HB2	1.94	0.49
3:D:683:ILE:H	3:D:683:ILE:HD12	1.77	0.49
2:M:564:MET:HE1	2:M:840:ALA:O	2.12	0.49
1:K:74:ASP:O	1:K:78:ILE:HG13	2.12	0.49
2:C:511:GLU:O	2:C:526:PRO:HD3	2.12	0.49
2:C:49:ARG:O	2:C:53:PRO:HD2	2.13	0.49
2:C:470:PRO:HD3	2:C:485:TYR:CZ	2.48	0.49
3:D:1098:LEU:HD23	3:D:1226:ALA:CA	2.37	0.49
3:D:1231:GLU:OE1	3:D:1232:PRO:HD3	2.13	0.49
3:N:1481:VAL:HG22	4:O:18:ARG:NH2	2.28	0.49
3:N:771:SER:O	3:N:774:SER:O	2.30	0.49
3:N:1200:VAL:CG1	3:N:1201:CYS:N	2.76	0.49
3:N:1485:GLN:NE2	4:O:80:VAL:O	2.46	0.49
3:N:478:LEU:O	3:N:1388:ARG:NH2	2.45	0.49
3:D:939:PHE:O	3:D:943:THR:HG23	2.13	0.49
2:M:969:GLN:HE22	3:N:952:ASP:HB3	1.78	0.49
2:M:141:HIS:NE2	2:M:332:ARG:HB3	2.27	0.49
1:K:11:PHE:HD1	1:K:25:LEU:HD13	1.77	0.49
2:M:162:ILE:CB	2:M:172:ILE:HB	2.37	0.49
1:L:50:GLY:O	1:L:146:ARG:HA	2.12	0.49
1:K:23:PHE:O	1:K:197:LEU:HD23	2.13	0.49
1:A:96:THR:OG1	1:A:143:ARG:HD2	2.12	0.49
2:C:12:VAL:HG13	2:C:13:ILE:N	2.27	0.49
1:B:102:LYS:HG3	1:B:138:LEU:O	2.13	0.49
1:B:140:MET:O	1:B:140:MET:HG2	2.13	0.49
3:D:1495:ILE:O	3:D:1499:ARG:HG3	2.12	0.49
3:N:9:ARG:HG2	3:N:9:ARG:HH11	1.78	0.49
2:M:636:ALA:O	2:M:637:LEU:HD23	2.13	0.49
2:M:555:ALA:O	2:M:558:ALA:HB3	2.13	0.49
2:C:334:ARG:HA	2:C:338:GLU:OE2	2.12	0.49
2:C:68:PHE:C	2:C:69:LEU:HD23	2.33	0.49
2:C:437:ARG:HG2	2:C:467:ILE:O	2.13	0.49
3:D:1231:GLU:CB	3:D:1232:PRO:HD3	2.41	0.49
3:D:583:ASP:CG	3:D:586:ARG:HG2	2.34	0.49
2:M:1001:VAL:HB	5:X:23:DG:O3'	2.12	0.49
2:M:468:ARG:CZ	2:M:485:TYR:O	2.61	0.49
2:C:854:PRO:HB2	2:C:856:GLU:CD	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1366:LYS:O	3:N:1370:ILE:HG12	2.12	0.49
3:N:6:ARG:C	3:N:7:LYS:HG3	2.33	0.49
2:M:941:VAL:O	2:M:944:LEU:HB2	2.13	0.49
3:N:1381:VAL:CG1	3:N:1382:THR:H	2.22	0.49
3:N:177:ALA:HB3	3:N:205:TYR:OH	2.13	0.49
2:C:739:GLU:HG3	2:C:742:VAL:CG1	2.42	0.49
2:M:583:LEU:N	2:M:583:LEU:HD12	2.28	0.49
3:N:795:VAL:HG13	3:N:863:VAL:HG22	1.95	0.49
2:M:139:GLN:HG2	2:M:418:LEU:HD22	1.93	0.49
3:D:54:LYS:HG3	3:D:55:ASP:N	2.28	0.49
2:M:611:ILE:HG13	2:M:625:LEU:HD11	1.95	0.49
4:O:36:LYS:HG2	4:O:95:VAL:HG22	1.94	0.49
2:M:603:VAL:HG21	2:M:647:GLN:HB3	1.93	0.49
2:M:732:ALA:O	2:M:735:ARG:HG3	2.13	0.49
2:C:585:GLU:O	2:C:588:VAL:HG22	2.13	0.49
3:D:128:TYR:CE2	3:D:458:ALA:HA	2.41	0.49
3:N:1176:LYS:O	3:N:1179:GLU:HB2	2.13	0.49
1:K:67:THR:OG1	2:M:609:ASN:ND2	2.46	0.49
1:B:186:LEU:O	1:B:188:GLN:N	2.46	0.49
2:C:22:GLN:O	2:C:121:MET:HE1	2.13	0.49
2:C:437:ARG:NH1	2:C:488:ALA:HA	2.28	0.49
2:C:685:GLU:OE1	3:D:739:ASP:CB	2.60	0.49
3:D:703:ASN:OD1	3:D:704:ARG:O	2.31	0.49
5:G:7:DA:H2"	5:G:8:DC:H6	1.77	0.49
2:M:1037:VAL:O	2:M:1041:GLU:HG3	2.13	0.49
3:N:701:LEU:HD13	3:N:748:HIS:HB2	1.95	0.49
5:X:19:DG:H2"	5:X:20:DC:C5'	2.37	0.49
1:A:36:LEU:C	1:A:39:PRO:HD2	2.34	0.49
2:C:1008:ARG:NH2	2:C:1012:PRO:N	2.61	0.49
3:N:814:ALA:O	3:N:818:ARG:HG3	2.13	0.49
3:N:1450:ALA:O	3:N:1453:ALA:O	2.30	0.49
3:D:1472:ILE:C	3:D:1474:ALA:N	2.66	0.49
3:D:133:ILE:O	3:D:153:LEU:N	2.46	0.49
2:M:690:ILE:CG2	2:M:852:ILE:HA	2.42	0.49
3:N:792:ILE:HG23	3:N:793:THR:N	2.28	0.49
3:N:864:VAL:HG12	3:N:865:THR:N	2.18	0.49
2:M:682:TYR:O	2:M:850:ALA:CB	2.61	0.49
1:B:59:GLU:HB2	1:B:137:ARG:HH12	1.78	0.49
3:N:1084:THR:HA	3:N:1087:ARG:NH2	2.28	0.49
3:D:145:VAL:HG13	3:D:148:GLU:OE1	2.12	0.49
3:N:986:ARG:HE	3:N:1310:ARG:HH12	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:483:VAL:HG12	2:M:484:VAL:N	2.28	0.49
2:C:1014:SER:O	2:C:1017:THR:O	2.30	0.48
2:C:1035:MET:C	3:D:707:THR:HB	2.33	0.48
3:D:739:ASP:H	6:H:15:C:C5'	2.16	0.48
2:M:1022:GLY:CA	2:M:1026:GLN:O	2.61	0.48
3:N:1239:ARG:NH1	3:N:1239:ARG:CB	2.73	0.48
1:A:9:PRO:HB3	1:A:25:LEU:HD21	1.93	0.48
2:C:630:ARG:HG2	2:C:826:TYR:CE2	2.47	0.48
3:N:55:ASP:CA	3:N:82:LYS:HE2	2.43	0.48
3:D:796:ARG:HB2	3:D:828:LYS:CD	2.36	0.48
3:D:853:VAL:HG22	3:D:858:VAL:HG23	1.94	0.48
3:D:1087:ARG:NE	3:D:1236:LEU:CD2	2.65	0.48
1:A:63:HIS:CE1	1:A:65:PHE:O	2.66	0.48
1:K:26:GLU:HB2	1:K:27:PRO:HA	1.94	0.48
2:C:759:THR:HB	2:C:785:VAL:CG1	2.43	0.48
4:O:37:ASN:N	4:O:37:ASN:ND2	2.56	0.48
1:L:58:ILE:HG21	1:L:61:VAL:HG23	1.94	0.48
5:G:3:DC:H1'	5:G:4:DA:H5'	1.95	0.48
2:M:603:VAL:CB	2:M:647:GLN:H	2.23	0.48
3:N:853:VAL:HG22	3:N:858:VAL:HG23	1.95	0.48
3:N:1496:GLU:CD	3:N:1500:LYS:HE3	2.33	0.48
2:C:510:ALA:HB3	2:C:513:VAL:CG2	2.43	0.48
2:C:578:VAL:O	2:C:900:ARG:HG2	2.13	0.48
3:D:757:ALA:O	3:D:761:ILE:HG13	2.12	0.48
3:N:414:ARG:N	3:N:414:ARG:HD2	2.28	0.48
2:C:452:ILE:N	2:C:452:ILE:HD12	2.27	0.48
2:C:1088:LEU:HD23	2:C:1088:LEU:O	2.12	0.48
3:D:1442:ASN:CG	3:D:1444:THR:OG1	2.52	0.48
2:C:1031:ARG:HD3	5:G:21:DG:OP1	2.13	0.48
3:D:743:ASP:HA	6:H:14:G:H1'	1.96	0.48
3:N:631:ILE:HD12	3:N:740:PHE:CE2	2.48	0.48
3:N:728:LEU:CG	3:N:729:HIS:N	2.76	0.48
3:N:813:LEU:HD12	3:N:814:ALA:N	2.28	0.48
2:C:572:ILE:HG23	2:C:703:ILE:CD1	2.43	0.48
3:N:1281:VAL:HG12	3:N:1314:LYS:O	2.13	0.48
3:N:159:ARG:HG2	3:N:163:TYR:HE2	1.78	0.48
3:D:39:PRO:O	3:D:40:GLU:O	2.31	0.48
3:D:877:PRO:O	3:D:880:ILE:HG22	2.13	0.48
3:D:134:VAL:O	3:D:454:ALA:HA	2.13	0.48
2:M:853:LEU:HB2	2:M:858:MET:CE	2.43	0.48
2:C:292:ARG:CD	2:C:298:PHE:HA	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:28:LYS:O	3:N:43:GLY:HA2	2.13	0.48
2:C:199:VAL:CG1	2:C:235:LEU:HG	2.40	0.48
2:C:737:LEU:HD21	2:C:741:GLY:CA	2.43	0.48
3:D:1394:VAL:HB	3:D:1397:LYS:HE2	1.95	0.48
3:D:937:TYR:CD1	3:D:937:TYR:N	2.81	0.48
1:L:58:ILE:HG22	1:L:61:VAL:H	1.77	0.48
3:N:1263:PHE:CE1	3:N:1352:ILE:HD13	2.48	0.48
3:D:128:TYR:HE2	3:D:458:ALA:CA	2.25	0.48
2:M:195:LEU:CG	2:M:238:LEU:HG	2.43	0.48
3:N:1066:THR:HG23	3:N:1069:GLU:H	1.79	0.48
3:N:584:ASN:HD21	3:N:590:PRO:HD2	1.78	0.48
1:L:43:ILE:HG23	1:L:47:SER:CB	2.43	0.48
1:K:206:THR:HG22	1:K:209:GLU:HG3	1.95	0.48
2:C:523:ILE:HG23	2:C:523:ILE:O	2.13	0.48
3:D:1090:ASP:O	3:D:1094:LEU:HB2	2.13	0.48
3:D:1378:TYR:CD1	3:D:1422:MET:SD	3.06	0.48
3:D:50:PHE:CD2	3:D:522:PRO:HD3	2.48	0.48
3:N:607:LEU:HD23	3:N:613:ARG:CB	2.38	0.48
3:N:838:ARG:NH1	3:N:838:ARG:HG2	2.27	0.48
2:M:535:SER:N	2:M:538:GLN:OE1	2.41	0.48
2:C:926:PHE:HD2	2:C:960:GLU:OE2	1.96	0.48
3:N:1274:ILE:CG2	3:N:1301:LYS:HZ1	2.14	0.48
2:C:272:ALA:O	2:C:276:LYS:CE	2.60	0.48
2:C:265:ARG:N	2:C:289:THR:HG21	2.22	0.48
3:N:693:GLU:HA	4:O:48:MET:SD	2.53	0.48
2:M:692:GLU:HB2	2:M:854:PRO:HA	1.96	0.48
2:M:854:PRO:HB2	2:M:856:GLU:CD	2.33	0.48
2:M:882:LEU:HD23	2:M:885:ILE:HG13	1.94	0.48
2:M:551:GLU:OE1	2:M:906:PHE:HA	2.14	0.48
2:M:31:GLN:HG2	2:M:34:VAL:HG23	1.94	0.48
2:C:277:ALA:O	2:C:278:GLU:C	2.51	0.48
3:D:676:MET:O	3:D:676:MET:SD	2.71	0.48
2:M:897:LEU:HD21	2:M:921:ALA:HA	1.96	0.48
3:D:1161:GLU:CD	3:D:1161:GLU:H	2.17	0.48
2:M:343:GLN:HG2	2:M:385:PHE:CD1	2.48	0.48
2:C:814:GLU:O	2:C:814:GLU:HG3	2.13	0.48
2:C:1038:TRP:CE2	3:D:1099:VAL:HG21	2.48	0.48
3:D:1102:THR:O	3:D:1222:GLY:HA3	2.13	0.48
3:D:704:ARG:CG	3:D:705:ALA:N	2.77	0.48
3:N:1147:ARG:NH2	3:N:1369:GLU:OE2	2.43	0.48
2:C:1012:PRO:HD3	2:C:1026:GLN:CG	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:861:LEU:HD13	2:M:865:THR:CG2	2.43	0.48
3:N:806:PHE:O	3:N:808:THR:N	2.46	0.48
6:H:4:G:C5	6:H:5:C:C4	3.02	0.48
3:N:109:PRO:O	3:N:111:LYS:HD2	2.13	0.48
3:N:1442:ASN:OD1	3:N:1444:THR:HB	2.13	0.48
3:D:136:ASP:CB	3:D:137:PRO:CD	2.77	0.48
3:D:1209:LEU:HD21	4:E:16:LYS:HZ2	1.75	0.48
2:M:324:ASP:O	2:M:327:HIS:HB2	2.13	0.48
2:M:630:ARG:CG	2:M:630:ARG:HH11	2.26	0.48
2:C:193:LEU:N	2:C:193:LEU:HD12	2.28	0.48
3:D:1154:GLU:N	3:N:561:GLY:CA	2.76	0.48
1:A:19:GLU:HA	1:A:201:THR:O	2.13	0.48
2:M:598:GLU:O	2:M:651:LYS:HE3	2.14	0.48
3:D:1068:LEU:O	3:D:1072:ILE:HG12	2.14	0.48
2:C:650:ARG:HG2	2:C:653:ASP:OD2	2.14	0.48
3:N:682:ASP:C	3:N:683:ILE:HG13	2.34	0.48
2:M:571:LEU:HD21	2:M:700:TYR:HA	1.94	0.48
3:N:1404:ASN:OD1	3:N:1408:ILE:HD12	2.14	0.48
4:O:49:GLN:HA	4:O:51:LEU:O	2.13	0.48
3:D:1462:LEU:O	3:D:1466:VAL:N	2.46	0.48
2:C:846:LYS:HB3	3:D:741:ASP:HB2	1.95	0.48
3:D:744:GLN:C	3:D:745:MET:HG3	2.34	0.48
3:N:609:GLY:C	3:N:611:GLN:N	2.65	0.48
5:X:20:DC:H2'	5:X:21:DG:C8	2.48	0.48
2:M:163:ILE:C	2:M:163:ILE:HD12	2.34	0.48
1:A:42:ARG:HH12	1:B:34:VAL:CB	2.23	0.48
2:M:1088:LEU:HD23	2:M:1088:LEU:C	2.33	0.48
3:N:1381:VAL:HB	3:N:1389:LEU:O	2.13	0.48
3:D:715:ALA:HB3	3:D:764:LEU:CA	2.43	0.48
3:D:154:THR:O	3:D:158:TYR:HB3	2.13	0.48
2:C:1045:ALA:CB	3:D:763:MET:HE3	2.44	0.48
2:M:333:ILE:N	2:M:333:ILE:CD1	2.76	0.48
3:D:1197:ARG:HB3	3:D:1396:GLU:CD	2.33	0.48
2:C:1063:ARG:CG	2:C:1064:ASN:N	2.75	0.48
1:L:101:LEU:HD12	1:L:113:ASP:HB3	1.92	0.48
1:L:26:GLU:CB	1:L:27:PRO:HA	2.32	0.48
5:G:3:DC:H6	5:G:3:DC:OP2	1.97	0.48
3:N:1395:LEU:O	3:N:1398:TRP:HB2	2.13	0.48
2:M:344:PHE:CE2	2:M:378:LEU:HD11	2.48	0.48
2:M:350:ARG:HA	2:M:353:ARG:HH21	1.78	0.48
1:B:79:ILE:HA	1:B:82:LEU:HD12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:184:THR:O	1:L:192:LEU:HB2	2.12	0.48
3:D:1468:LEU:HD13	3:D:1470:ARG:HD3	1.96	0.48
7:I:2:DT:OP2	7:I:2:DT:H2'	2.13	0.48
7:I:2:DT:O4	7:I:3:DA:N6	2.47	0.48
7:I:9:DT:H2''	7:I:10:DG:OP2	2.12	0.48
2:M:169:GLY:O	2:M:170:PRO:O	2.31	0.48
3:N:1227:GLN:C	3:N:1229:ILE:N	2.66	0.48
2:M:455:LEU:HD12	2:M:456:ALA:N	2.28	0.48
3:N:1389:LEU:CD1	3:N:1390:LEU:N	2.76	0.48
2:C:861:LEU:HA	2:C:974:LEU:HD12	1.95	0.48
2:M:91:GLN:HB3	2:M:118:ILE:C	2.33	0.48
4:O:54:LEU:O	4:O:63:TRP:HZ2	1.97	0.48
2:M:692:GLU:CB	2:M:854:PRO:HA	2.43	0.48
3:D:925:GLU:OE1	4:E:5:GLY:CA	2.62	0.48
2:M:49:ARG:HH11	2:M:68:PHE:HD2	1.61	0.48
2:M:302:VAL:HG13	2:M:303:PHE:N	2.29	0.48
2:M:211:LEU:CB	2:M:308:ARG:HD2	2.37	0.48
2:C:922:PHE:CZ	2:C:963:LEU:HB3	2.49	0.48
2:C:942:GLU:O	2:C:946:ARG:HG3	2.13	0.48
2:C:313:LEU:HG	2:C:314:THR:N	2.25	0.48
1:A:51:THR:HB	1:A:87:VAL:HG23	1.94	0.48
2:M:725:ASP:HB3	2:M:783:ARG:HH22	1.78	0.48
2:C:957:LYS:HD3	2:C:961:GLU:CB	2.42	0.48
2:C:893:ALA:HB1	2:C:897:LEU:CD1	2.44	0.48
3:N:552:ASN:O	3:N:556:LYS:HG3	2.13	0.48
3:N:1504:GLU:O	3:N:1505:ALA:C	2.52	0.48
2:C:1090:LYS:HE3	3:D:90:MET:HG3	1.96	0.48
3:D:503:LEU:O	3:D:506:GLY:N	2.47	0.48
3:N:631:ILE:HD11	3:N:743:ASP:HB2	1.94	0.48
6:Y:8:G:C8	6:Y:8:G:OP2	2.66	0.48
2:M:164:PRO:CD	2:M:170:PRO:O	2.62	0.48
2:M:265:ARG:HG2	2:M:267:TYR:H	1.78	0.48
2:M:292:ARG:HD2	2:M:299:LYS:HE2	1.94	0.48
1:A:43:ILE:CG2	1:A:47:SER:HB2	2.34	0.48
3:N:618:LEU:HD11	3:N:1467:ILE:HD11	1.95	0.48
3:D:695:ILE:O	3:D:698:LYS:N	2.47	0.48
7:Z:3:DA:H1'	7:Z:4:DG:C5'	2.24	0.48
3:N:525:ARG:H	3:N:525:ARG:HD3	1.78	0.48
2:M:1016:ILE:HD13	2:M:1016:ILE:N	2.18	0.48
2:M:428:ARG:NH2	2:M:451:LEU:HD11	2.28	0.48
2:M:302:VAL:HG13	2:M:303:PHE:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:603:VAL:CG2	2:M:647:GLN:HB3	2.44	0.48
1:B:150:TYR:CE1	1:B:170:VAL:HG12	2.48	0.48
2:M:724:ARG:HG2	2:M:724:ARG:O	2.13	0.48
2:M:236:ILE:N	2:M:236:ILE:HD12	2.28	0.48
3:N:1350:GLU:OE2	3:N:1354:LYS:HE3	2.14	0.48
1:B:142:VAL:HG23	1:B:142:VAL:O	2.14	0.48
2:M:726:ILE:HD12	2:M:726:ILE:N	2.29	0.48
3:D:104:PHE:CE2	3:D:1448:THR:HG23	2.49	0.48
3:D:615:ARG:NH2	3:D:1096:ARG:NH1	2.62	0.48
3:D:1227:GLN:C	3:D:1229:ILE:N	2.67	0.48
3:D:618:LEU:CD1	3:D:1463:LYS:HG3	2.43	0.48
2:C:1053:LEU:HD13	3:D:1469:GLY:HA2	1.94	0.48
3:N:700:VAL:O	3:N:715:ALA:HA	2.14	0.48
3:N:1223:ILE:O	3:N:1226:ALA:HB3	2.13	0.48
3:N:95:LEU:HD12	3:N:515:GLU:CA	2.44	0.48
7:Z:1:DG:C2'	7:Z:2:DT:H71	2.43	0.48
7:Z:6:DT:H2''	7:Z:7:DT:C7	2.44	0.48
3:D:1194:CYS:CB	3:D:1204:CYS:SG	2.98	0.48
2:M:375:SER:HB3	2:M:379:GLU:OE1	2.13	0.48
3:N:57:GLU:HG2	3:N:58:CYS:H	1.79	0.48
3:D:155:ASP:HA	3:D:158:TYR:HD2	1.78	0.48
1:L:176:ARG:HH22	3:N:884:ARG:HG3	1.78	0.48
2:M:903:SER:O	2:M:904:PRO:O	2.32	0.48
2:M:713:ARG:HG2	2:M:714:ASP:H	1.78	0.48
3:N:41:ARG:HH11	3:N:42:ASP:HB3	1.77	0.48
4:O:72:ARG:HB2	4:O:73:LEU:HD12	1.96	0.48
2:C:730:SER:O	2:C:734:LEU:HD13	2.13	0.48
3:D:1197:ARG:HD3	3:D:1198:TYR:N	2.27	0.48
1:L:102:LYS:HD2	1:L:139:ASN:HB2	1.96	0.48
1:A:57:TYR:CE1	1:A:161:ARG:HG2	2.49	0.48
2:C:244:PRO:CD	2:C:245:GLY:N	2.74	0.48
3:D:794:GLN:OE1	3:D:905:PRO:CG	2.62	0.48
1:B:76:VAL:O	1:B:80:LEU:HB2	2.14	0.48
2:C:1074:GLU:HG2	2:C:1075:ASP:H	1.79	0.48
2:C:722:ILE:HG23	2:C:722:ILE:O	2.13	0.48
2:C:394:PHE:CE1	2:C:632:ASN:HB3	2.48	0.48
2:C:1115:LEU:HD22	3:D:88:TYR:CD1	2.48	0.48
2:M:1009:SER:OG	2:M:1010:THR:N	2.47	0.48
6:Y:4:G:H2'	6:Y:5:C:O5'	2.14	0.48
2:M:279:GLU:HG3	2:M:280:LYS:N	2.28	0.48
1:A:42:ARG:NH1	2:C:978:ARG:HA	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:577:ALA:O	3:N:581:LEU:CD2	2.61	0.48
3:N:838:ARG:H	3:N:838:ARG:HD2	1.78	0.48
3:N:1283:ILE:HG22	3:N:1284:GLU:N	2.28	0.48
3:N:525:ARG:CB	3:N:540:LEU:HD12	2.42	0.48
3:N:58:CYS:SG	3:N:61:GLY:CA	3.02	0.48
1:A:63:HIS:ND1	1:A:65:PHE:HD1	2.11	0.48
3:D:554:LEU:HG	3:D:558:LEU:HG	1.96	0.48
2:M:304:LEU:HG	2:M:305:PRO:HD3	1.95	0.48
1:K:9:PRO:HB3	1:K:25:LEU:CD2	2.44	0.48
2:C:182:VAL:HB	2:C:193:LEU:HD13	1.94	0.48
2:M:1074:GLU:HG2	2:M:1075:ASP:N	2.23	0.48
1:A:96:THR:HA	1:A:144:VAL:O	2.14	0.48
3:N:206:ARG:HG2	3:N:394:LEU:CD2	2.43	0.48
2:M:94:LEU:HD12	2:M:95:TYR:H	1.79	0.48
2:M:340:MET:C	2:M:340:MET:SD	2.93	0.48
3:N:970:LYS:O	3:N:974:ILE:HG13	2.13	0.48
2:M:561:GLY:O	2:M:564:MET:HG2	2.14	0.48
1:A:30:ARG:NH1	1:A:191:ASP:HB2	2.29	0.48
4:O:3:GLU:HA	4:O:3:GLU:OE1	2.13	0.48
3:N:585:GLY:C	3:N:587:ARG:N	2.65	0.48
2:C:460:ARG:HH12	2:C:462:ASP:CA	2.27	0.48
2:C:432:ARG:NH1	2:C:520:GLU:OE1	2.47	0.48
3:D:1102:THR:OG1	3:D:1222:GLY:O	2.27	0.48
3:D:1266:ARG:NH2	7:I:4:DG:H4'	2.29	0.48
3:D:525:ARG:HG3	3:D:541:ASN:OD1	2.14	0.48
3:N:710:ARG:HH12	4:O:16:LYS:HZ3	1.62	0.48
2:M:261:ILE:HD13	2:M:262:ALA:H	1.78	0.48
3:D:698:LYS:CD	4:E:59:ASN:OD1	2.62	0.48
2:M:939:ARG:CA	2:M:939:ARG:NE	2.64	0.48
3:N:152:LEU:HD23	3:N:152:LEU:N	2.26	0.48
2:C:862:PRO:HB2	2:C:929:ARG:HH12	1.78	0.48
2:M:86:LYS:HD3	2:M:813:VAL:CB	2.32	0.48
3:N:51:GLY:HA3	3:N:86:ARG:HA	1.95	0.48
2:M:877:PRO:HG3	3:N:1023:MET:SD	2.54	0.48
3:N:845:ASN:CG	3:N:846:PRO:CD	2.82	0.48
2:M:759:THR:HB	2:M:785:VAL:CG1	2.44	0.48
2:C:579:VAL:HG13	2:C:842:ARG:NH2	2.17	0.48
3:D:951:ILE:CG2	3:D:952:ASP:N	2.77	0.48
2:C:31:GLN:CD	2:C:71:TYR:OH	2.51	0.48
3:D:676:MET:SD	3:D:684:LYS:HE3	2.54	0.48
3:D:1154:GLU:H	3:N:561:GLY:CA	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:515:ALA:C	2:C:516:ARG:HD3	2.34	0.48
2:M:512:ARG:HB3	2:M:523:ILE:HD11	1.94	0.48
1:B:20:TYR:HE2	1:B:198:ARG:HB2	1.78	0.48
3:D:891:GLU:O	3:D:893:GLU:N	2.46	0.48
3:D:892:ASP:OD2	3:D:895:VAL:HG23	2.14	0.48
1:K:80:LEU:HD23	1:K:80:LEU:O	2.13	0.48
3:D:1094:LEU:CD2	3:D:1256:LEU:HD11	2.44	0.47
3:D:744:GLN:CG	5:G:21:DG:H21	2.19	0.47
2:M:878:SER:OG	3:N:1029:ARG:NE	2.47	0.47
3:D:651:GLU:O	3:D:654:LYS:HB2	2.14	0.47
3:N:829:VAL:O	3:N:835:SER:HB3	2.14	0.47
3:D:834:THR:HA	3:D:838:ARG:NH1	2.28	0.47
3:N:808:THR:OG1	3:N:809:PRO:HD3	2.14	0.47
3:N:486:ARG:HA	3:N:489:ARG:CG	2.39	0.47
3:D:730:PRO:O	3:D:733:CYS:SG	2.72	0.47
3:D:456:MET:O	3:D:459:GLU:HB3	2.14	0.47
2:M:988:VAL:HG11	3:N:950:GLY:HA2	1.96	0.47
3:D:864:VAL:CG1	3:D:865:THR:H	2.13	0.47
1:L:89:PHE:HE2	1:L:146:ARG:HB3	1.79	0.47
3:N:996:TRP:HA	3:N:999:THR:CG2	2.42	0.47
2:C:589:ARG:HA	2:C:596:TYR:CZ	2.49	0.47
1:B:9:PRO:HB3	1:B:25:LEU:HG	1.95	0.47
1:K:109:VAL:HG23	1:K:132:LEU:HD13	1.96	0.47
1:K:193:ASP:HA	2:M:938:LYS:NZ	2.29	0.47
3:N:871:LYS:HB2	3:N:873:LEU:HD21	1.94	0.47
2:M:837:ASP:HA	2:M:999:HIS:CE1	2.49	0.47
3:D:897:TRP:CB	3:D:900:ILE:CD1	2.79	0.47
2:C:431:HIS:CD2	2:C:432:ARG:N	2.83	0.47
2:C:408:ARG:NH2	2:C:456:ALA:O	2.46	0.47
3:D:103:TRP:O	3:D:107:ASP:HB2	2.12	0.47
3:D:21:TRP:HE3	3:D:90:MET:SD	2.37	0.47
2:M:1069:ALA:O	2:M:1072:LYS:HB3	2.14	0.47
3:N:1100:ASP:HB3	3:N:1428:ALA:HB1	1.96	0.47
5:X:13:DA:O5'	5:X:13:DA:H8	1.97	0.47
2:C:926:PHE:HA	2:C:929:ARG:HB2	1.96	0.47
2:M:433:THR:C	2:M:435:TYR:N	2.67	0.47
3:N:1303:TYR:O	3:N:1305:LEU:HD23	2.13	0.47
2:M:692:GLU:O	2:M:696:LYS:HG3	2.14	0.47
2:M:693:GLU:HG3	2:M:697:ARG:HH21	1.76	0.47
3:D:924:MET:HB3	4:E:6:ILE:HG23	1.96	0.47
2:C:66:LEU:HD12	2:C:99:GLN:C	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:35:PRO:C	2:M:37:GLU:H	2.17	0.47
2:C:701:THR:HG21	2:C:830:LYS:HD2	1.95	0.47
3:D:645:PRO:HB2	3:D:648:MET:HG3	1.97	0.47
1:L:137:ARG:O	1:L:137:ARG:HD3	2.14	0.47
1:K:112:ARG:NH1	1:K:112:ARG:CG	2.77	0.47
1:B:49:PRO:CA	1:B:148:VAL:HG12	2.42	0.47
3:N:8:VAL:HG12	3:N:9:ARG:N	2.29	0.47
3:D:1354:LYS:HA	3:D:1357:ARG:HD2	1.96	0.47
1:B:22:GLU:OE2	1:B:198:ARG:HB3	2.14	0.47
2:M:502:PRO:HB2	2:M:509:ALA:HB3	1.96	0.47
2:M:19:THR:HG22	2:M:19:THR:O	2.15	0.47
5:G:5:DC:O5'	5:G:5:DC:C6	2.67	0.47
2:M:442:GLU:HG2	2:M:454:SER:CB	2.41	0.47
2:M:272:ALA:O	2:M:276:LYS:NZ	2.46	0.47
2:M:259:GLY:HA2	2:M:290:LEU:O	2.13	0.47
2:C:287:GLY:O	2:C:288:ARG:C	2.52	0.47
3:N:1128:VAL:C	3:N:1129:THR:HG22	2.34	0.47
3:N:480:GLU:O	3:N:484:PRO:HD2	2.14	0.47
5:X:2:DT:H4'	5:X:2:DT:OP2	2.14	0.47
2:M:90:TYR:HB2	2:M:128:ILE:HB	1.96	0.47
3:N:1293:PHE:CE1	3:N:1302:GLU:HA	2.49	0.47
2:M:966:LEU:HD21	2:M:986:PRO:CG	2.39	0.47
2:M:969:GLN:NE2	3:N:952:ASP:CB	2.77	0.47
1:A:133:GLU:HG2	1:A:134:GLU:H	1.80	0.47
4:O:73:LEU:HD12	4:O:73:LEU:N	2.30	0.47
3:D:1066:THR:HG22	3:D:1069:GLU:HB2	1.95	0.47
3:N:1424:VAL:HG13	3:N:1425:THR:N	2.30	0.47
3:D:1409:ALA:HA	2:M:370:ALA:HB1	1.95	0.47
2:C:838:LYS:HZ3	3:D:742:GLY:HA3	1.79	0.47
3:N:1017:PHE:HA	3:N:1022:VAL:CG2	2.43	0.47
4:O:13:VAL:HG21	4:O:19:LEU:HB2	1.96	0.47
3:N:1109:GLU:CB	3:N:1201:CYS:HA	2.44	0.47
3:D:1200:VAL:HG12	3:D:1201:CYS:N	2.29	0.47
3:D:1206:GLY:HA3	3:D:1366:LYS:HZ1	1.79	0.47
2:M:80:GLN:N	2:M:90:TYR:HE2	2.12	0.47
3:D:947:ILE:O	3:D:947:ILE:HD12	2.14	0.47
3:D:1087:ARG:HB3	3:D:1236:LEU:HD13	1.96	0.47
2:M:876:VAL:N	2:M:877:PRO:HD2	2.29	0.47
2:M:876:VAL:O	2:M:879:ARG:O	2.32	0.47
3:D:1211:MET:SD	3:D:1213:ARG:HD3	2.55	0.47
2:M:902:ILE:O	2:M:902:ILE:HG22	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:720:GLU:HA	2:M:759:THR:O	2.13	0.47
2:C:1047:HIS:HA	2:C:1050:GLN:HB3	1.97	0.47
2:C:919:ALA:HA	2:C:968:LEU:HD21	1.96	0.47
2:C:20:GLU:HG2	2:C:21:ILE:CD1	2.39	0.47
3:N:549:ASN:O	3:N:553:ARG:HB2	2.14	0.47
1:L:98:THR:HG22	1:L:100:LEU:HD21	1.96	0.47
2:M:378:LEU:HG	2:M:382:ILE:CD1	2.43	0.47
2:C:553:ASP:OD2	2:C:883:GLY:HA3	2.15	0.47
3:N:470:LEU:HD12	3:N:503:LEU:HG	1.95	0.47
2:C:160:ALA:HB3	2:C:174:LEU:HB2	1.97	0.47
1:A:24:VAL:HG22	1:A:196:THR:HG22	1.94	0.47
3:N:1479:ASP:CG	3:N:1482:ARG:NH2	2.67	0.47
1:L:226:SER:O	1:L:228:PRO:HD3	2.14	0.47
3:N:890:VAL:HG23	3:N:890:VAL:O	2.14	0.47
1:A:82:LEU:O	1:A:85:LEU:HB3	2.13	0.47
2:C:18:LEU:HD22	2:C:590:ASP:CB	2.44	0.47
3:D:1377:LYS:HG2	3:D:1378:TYR:CD1	2.49	0.47
3:D:606:ILE:O	3:D:613:ARG:N	2.47	0.47
2:C:444:PRO:HB3	6:H:12:U:P	2.54	0.47
7:I:7:DT:H2"	7:I:8:DG:H8	1.79	0.47
4:E:68:LEU:CD1	4:E:68:LEU:N	2.77	0.47
3:N:688:TRP:HA	3:N:688:TRP:HE3	1.79	0.47
2:M:15:LEU:H	2:M:15:LEU:HD12	1.78	0.47
3:N:1100:ASP:OD2	3:N:1440:PHE:HB3	2.14	0.47
3:N:1100:ASP:OD2	3:N:1440:PHE:CG	2.68	0.47
3:D:1112:CYS:CA	3:D:1195:GLN:HG2	2.42	0.47
3:D:783:ARG:HB3	3:D:1028:ALA:O	2.15	0.47
3:N:90:MET:CE	3:N:520:LEU:HA	2.44	0.47
3:D:640:HIS:NE2	3:D:717:GLN:CD	2.68	0.47
3:D:932:ASP:HA	3:D:935:LYS:HD3	1.96	0.47
2:C:987:ILE:HG12	3:D:948:THR:HG23	1.96	0.47
3:D:543:LEU:HD23	3:D:546:ARG:HD2	1.97	0.47
2:M:971:LYS:CE	2:M:988:VAL:HG12	2.31	0.47
2:M:902:ILE:O	2:M:904:PRO:HD3	2.15	0.47
1:L:25:LEU:HD23	1:L:195:LEU:HB3	1.95	0.47
3:N:1257:PRO:HA	3:N:1260:ILE:HG12	1.96	0.47
3:D:1379:VAL:HA	3:D:1420:LEU:HB2	1.96	0.47
2:C:77:PRO:HD2	2:C:91:GLN:O	2.15	0.47
2:M:334:ARG:HB2	2:M:339:LEU:CD2	2.41	0.47
1:K:11:PHE:HA	1:K:25:LEU:HD12	1.95	0.47
2:C:184:MET:SD	2:C:191:PHE:HE1	2.37	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1234:THR:O	3:D:1235:GLN:C	2.51	0.47
1:L:173:PRO:HB2	1:L:205:VAL:HG22	1.96	0.47
2:C:151:ASP:HA	2:C:159:ILE:HG12	1.95	0.47
1:A:102:LYS:CA	1:A:138:LEU:O	2.61	0.47
1:A:58:ILE:HD13	1:A:140:MET:HB3	1.96	0.47
3:N:1322:GLY:O	3:N:1323:GLN:CB	2.59	0.47
2:C:1020:PRO:HD2	3:D:622:ARG:O	2.15	0.47
1:K:220:GLU:O	1:K:223:THR:HG22	2.14	0.47
2:M:825:VAL:HG12	2:M:827:VAL:CG2	2.44	0.47
3:N:545:ARG:CZ	3:N:545:ARG:CB	2.92	0.47
3:N:587:ARG:C	3:N:588:GLY:O	2.52	0.47
2:C:736:ASP:O	2:C:744:ARG:HG2	2.15	0.47
3:N:1161:GLU:H	3:N:1161:GLU:CD	2.17	0.47
1:K:165:ILE:HG13	1:K:165:ILE:O	2.15	0.47
3:D:576:GLU:C	3:D:576:GLU:CD	2.72	0.47
2:C:1090:LYS:O	2:C:1094:ALA:N	2.47	0.47
3:D:1264:GLU:HA	3:D:1423:GLY:HA3	1.96	0.47
3:D:1424:VAL:HG13	3:D:1425:THR:H	1.78	0.47
3:D:738:ALA:HA	6:H:15:C:C4'	2.40	0.47
3:D:84:ILE:O	3:D:87:ARG:HG3	2.14	0.47
2:M:685:GLU:HG2	3:N:739:ASP:CB	2.45	0.47
3:N:1227:GLN:C	3:N:1229:ILE:H	2.18	0.47
3:N:17:LYS:O	3:N:20:SER:HB3	2.14	0.47
3:D:731:LEU:HD21	3:D:782:SER:N	2.28	0.47
3:N:1292:VAL:HG11	3:N:1313:VAL:CG1	2.45	0.47
3:N:1330:ILE:CD1	3:N:1347:TYR:CE1	2.97	0.47
2:C:302:VAL:HG13	2:C:303:PHE:N	2.28	0.47
3:D:1138:ALA:O	3:D:1141:GLU:N	2.48	0.47
3:D:1141:GLU:HG2	3:D:1168:MET:HE2	1.97	0.47
3:D:925:GLU:OE2	4:E:5:GLY:N	2.48	0.47
2:M:1014:SER:CB	2:M:1017:THR:O	2.59	0.47
2:M:211:LEU:HD13	2:M:308:ARG:CD	2.44	0.47
2:C:1003:ASP:CG	2:C:1004:LYS:H	2.17	0.47
2:M:639:GLN:O	2:M:641:PRO:HD3	2.15	0.47
3:D:845:ASN:CG	3:D:846:PRO:HD2	2.35	0.47
2:M:355:VAL:HG13	2:M:356:ARG:N	2.28	0.47
3:D:812:ALA:HB1	3:D:816:HIS:CD2	2.49	0.47
2:C:642:ARG:CG	2:C:657:ASP:OD2	2.63	0.47
2:M:121:MET:HE2	2:M:125:GLY:O	2.14	0.47
1:K:179:PHE:HB2	1:K:195:LEU:HD11	1.96	0.47
3:N:117:ASP:HB2	3:N:495:ARG:HH22	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:749:VAL:C	2:M:750:LYS:HD2	2.35	0.47
2:M:421:GLU:HG3	2:M:421:GLU:O	2.14	0.47
3:N:988:ARG:HD2	3:N:988:ARG:C	2.35	0.47
3:D:1255:GLY:CA	3:D:1257:PRO:HD2	2.45	0.47
3:D:1468:LEU:HD13	3:D:1470:ARG:HB2	1.96	0.47
2:C:1112:PHE:CD1	2:C:1116:ALA:HB2	2.50	0.47
3:D:1263:PHE:CE2	3:D:1371:VAL:HG11	2.49	0.47
3:D:493:ARG:HG3	3:D:494:LYS:N	2.30	0.47
3:N:771:SER:HA	3:N:778:LEU:HD22	1.96	0.47
3:N:637:LEU:HD11	3:N:641:GLN:C	2.34	0.47
3:N:641:GLN:HA	3:N:717:GLN:H	1.80	0.47
3:N:752:SER:OG	3:N:754:PHE:CB	2.62	0.47
2:M:170:PRO:CG	2:M:258:TYR:HE2	2.27	0.47
3:N:1126:ASP:HB2	3:N:1129:THR:O	2.15	0.47
2:C:1056:LYS:HE3	3:D:751:LEU:HG	1.97	0.47
4:E:48:MET:N	4:E:54:LEU:HB2	2.29	0.47
2:M:937:ASP:O	2:M:941:VAL:HG23	2.15	0.47
3:N:812:ALA:HB1	3:N:816:HIS:CD2	2.50	0.47
3:N:457:GLY:C	3:N:459:GLU:H	2.17	0.47
3:N:1389:LEU:CD1	3:N:1390:LEU:HG	2.45	0.47
3:N:1438:ALA:N	3:N:1446:VAL:HG11	2.29	0.47
2:C:861:LEU:HD21	2:C:925:TYR:CZ	2.49	0.47
1:K:42:ARG:NH2	2:M:857:ASP:HB3	2.29	0.47
2:M:433:THR:HG21	2:M:488:ALA:HB1	1.97	0.47
2:M:433:THR:CG2	2:M:488:ALA:HB1	2.44	0.47
3:D:907:GLU:CD	3:D:909:ASN:HB2	2.35	0.47
2:C:983:ILE:HG23	3:D:944:THR:HA	1.96	0.47
3:D:712:GLY:C	3:D:713:ILE:HG13	2.35	0.47
3:D:131:LYS:HZ2	3:D:564:GLU:HB3	1.80	0.47
1:A:65:PHE:CE1	2:C:799:ILE:CB	2.97	0.47
2:M:757:GLY:HA2	2:M:789:SER:OG	2.14	0.47
2:M:694:LEU:HD21	2:M:868:ASP:HB3	1.96	0.47
3:N:850:LEU:HD22	3:N:884:ARG:HH21	1.80	0.47
2:M:518:LYS:CB	2:M:518:LYS:NZ	2.77	0.47
3:D:550:ARG:HA	3:D:553:ARG:HB3	1.97	0.47
2:C:786:LYS:HG2	2:C:787:ASP:N	2.29	0.47
3:D:1381:VAL:HG12	3:D:1382:THR:N	2.29	0.47
3:N:465:LEU:CD1	3:N:510:GLU:HA	2.45	0.47
2:M:969:GLN:NE2	3:N:952:ASP:HB3	2.29	0.47
3:D:644:LEU:C	3:D:721:VAL:HG22	2.35	0.47
2:C:128:ILE:HG22	2:C:128:ILE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:83:CYS:SG	2:C:90:TYR:HD2	2.37	0.47
2:M:461:VAL:CG1	2:M:465:GLY:HA2	2.45	0.47
2:M:269:LEU:CB	2:M:288:ARG:HG2	2.44	0.47
2:C:922:PHE:HB2	2:C:967:PHE:CD2	2.50	0.47
1:K:64:GLU:HA	1:K:75:VAL:HG11	1.95	0.47
2:M:185:LYS:HG2	2:M:188:LYS:O	2.14	0.47
2:C:31:GLN:HG2	2:C:34:VAL:HG23	1.97	0.47
3:N:1166:LEU:HD23	3:N:1166:LEU:N	2.24	0.47
2:M:730:SER:O	2:M:734:LEU:HD13	2.15	0.47
3:N:112:ILE:O	3:N:112:ILE:HD12	2.15	0.47
2:M:557:ARG:HD2	2:M:557:ARG:HA	1.70	0.47
2:C:1101:THR:OG1	2:C:1109:VAL:HB	2.13	0.47
2:M:910:LYS:O	2:M:914:ILE:HG13	2.15	0.47
2:M:620:LEU:O	2:M:620:LEU:HD12	2.15	0.47
3:D:1354:LYS:HE3	3:D:1357:ARG:NH1	2.30	0.47
1:K:92:PRO:HA	1:K:146:ARG:NH1	2.28	0.47
1:K:92:PRO:N	1:K:146:ARG:HH12	2.13	0.47
2:C:607:ASP:HB3	2:C:610:ARG:H	1.79	0.47
2:C:206:THR:HG23	2:C:207:LEU:N	2.30	0.47
2:M:629:TYR:HB2	2:M:637:LEU:HB2	1.97	0.47
2:C:578:VAL:HG13	2:C:671:ASN:CG	2.35	0.47
3:N:1161:GLU:HG2	3:N:1164:ARG:HB2	1.95	0.47
2:M:390:GLN:H	2:M:390:GLN:HG3	1.38	0.47
2:M:146:VAL:HG13	2:M:161:SER:O	2.15	0.47
2:M:3:ILE:HD13	2:M:900:ARG:HB3	1.97	0.47
2:C:1034:GLU:O	2:C:1037:VAL:N	2.48	0.47
2:C:395:LYS:HZ2	2:C:407:LYS:HZ2	1.62	0.47
2:C:433:THR:C	2:C:435:TYR:N	2.66	0.47
2:C:409:ARG:CA	2:C:454:SER:HA	2.33	0.47
3:D:10:ILE:O	3:D:1451:ALA:HA	2.14	0.47
3:D:1459:LEU:HD22	3:D:1468:LEU:HD12	1.97	0.47
3:D:615:ARG:HD2	3:D:615:ARG:HA	1.74	0.47
3:N:1460:ILE:O	3:N:1464:GLU:OE2	2.33	0.47
3:N:699:VAL:HB	3:N:716:PHE:O	2.15	0.47
1:A:28:LEU:HD13	1:A:32:PHE:CB	2.29	0.47
1:A:32:PHE:CD1	1:B:221:HIS:NE2	2.72	0.47
3:N:658:LEU:HA	3:N:661:MET:HG3	1.96	0.47
3:N:603:LEU:O	3:N:604:THR:C	2.53	0.47
1:K:176:ARG:HG3	1:K:200:TRP:HE3	1.80	0.47
1:K:55:SER:H	1:K:143:ARG:HB3	1.80	0.47
2:C:169:GLY:O	2:C:170:PRO:O	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:57:ASP:N	4:O:58:PRO:HD3	2.29	0.47
2:M:971:LYS:HE3	2:M:988:VAL:CG1	2.32	0.47
2:M:971:LYS:HE2	2:M:986:PRO:O	2.15	0.47
2:C:292:ARG:HD3	2:C:298:PHE:HA	1.97	0.47
1:K:188:GLN:HG3	1:K:189:ARG:N	2.25	0.47
3:N:1236:LEU:O	3:N:1237:THR:CB	2.63	0.47
2:M:332:ARG:CG	2:M:333:ILE:N	2.77	0.47
2:C:967:PHE:HD1	2:C:972:VAL:HG12	1.80	0.47
1:A:48:ILE:CD1	1:A:174:VAL:CG2	2.92	0.47
3:D:1496:GLU:CD	3:D:1500:LYS:HE3	2.35	0.47
3:N:799:LYS:HE2	3:N:824:ASN:O	2.15	0.47
3:N:974:ILE:HG12	3:N:991:GLN:OE1	2.15	0.47
2:C:1111:ILE:HG13	2:C:1112:PHE:N	2.25	0.47
3:D:603:LEU:O	3:D:607:LEU:HG	2.15	0.47
7:I:1:DG:OP3	7:I:1:DG:C3'	2.62	0.47
2:M:1066:ALA:O	2:M:1070:ILE:HG13	2.15	0.47
2:M:393:GLN:HG2	6:Y:10:G:O2'	2.14	0.47
2:M:170:PRO:HG2	2:M:258:TYR:CD2	2.50	0.47
2:C:1012:PRO:CD	2:C:1026:GLN:HG2	2.45	0.47
2:M:455:LEU:HD12	2:M:455:LEU:C	2.36	0.47
3:N:1282:ARG:HA	3:N:1315:ASP:HA	1.97	0.47
3:N:1313:VAL:HG21	3:N:1319:VAL:HG11	1.97	0.47
2:C:264:PRO:CB	2:C:289:THR:HB	2.45	0.47
3:D:943:THR:OG1	3:D:944:THR:N	2.48	0.47
3:N:860:LEU:HD23	3:N:877:PRO:CB	2.45	0.47
2:C:833:LEU:HD12	2:C:996:LYS:HE2	1.97	0.47
4:O:40:LEU:HD23	4:O:72:ARG:HE	1.79	0.47
3:D:813:LEU:O	3:D:817:GLU:HB2	2.14	0.47
1:K:58:ILE:HB	1:K:61:VAL:HB	1.96	0.47
2:C:553:ASP:HA	2:C:881:ASN:HA	1.96	0.47
2:M:700:TYR:O	2:M:833:LEU:HB2	2.15	0.47
3:D:1123:PHE:HA	3:D:1133:ARG:O	2.15	0.47
2:C:994:ILE:HG22	2:C:995:MET:N	2.30	0.47
2:C:442:GLU:HG2	2:C:454:SER:CB	2.44	0.47
3:D:1093:TYR:HE2	3:D:1096:ARG:CZ	2.28	0.47
3:D:1435:LEU:HB2	3:D:1464:GLU:HB3	1.95	0.47
2:M:1054:THR:O	2:M:1056:LYS:N	2.48	0.47
3:N:925:GLU:O	3:N:928:ALA:HB3	2.15	0.47
2:M:468:ARG:HA	2:M:486:MET:O	2.14	0.47
3:N:1031:ASN:O	3:N:1032:PRO:C	2.53	0.47
1:B:47:SER:OG	1:B:217:ILE:HG12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1223:ILE:N	3:N:1223:ILE:HD12	2.30	0.47
5:X:5:DC:H2"	5:X:6:DT:O5'	2.15	0.47
3:N:187:LYS:HG3	3:N:198:ARG:C	2.35	0.47
3:D:1209:LEU:HD23	3:D:1211:MET:N	2.12	0.47
1:L:176:ARG:O	1:L:200:TRP:HE3	1.98	0.47
2:M:327:HIS:HE1	2:M:489:THR:HA	1.80	0.47
2:M:603:VAL:HG12	2:M:646:GLY:H	1.80	0.47
2:C:903:SER:O	2:C:904:PRO:O	2.33	0.47
2:C:12:VAL:CG1	2:C:472:ARG:HD3	2.45	0.47
3:N:149:LYS:HG3	3:N:149:LYS:H	1.41	0.47
3:D:128:TYR:HB3	3:D:129:PHE:CD1	2.50	0.47
3:N:206:ARG:HB2	3:N:392:SER:C	2.35	0.47
3:N:941:PHE:O	3:N:945:SER:HB3	2.15	0.47
3:N:911:LEU:O	3:N:915:VAL:HG23	2.14	0.47
2:C:607:ASP:HB2	2:C:610:ARG:NH1	2.29	0.47
2:C:607:ASP:OD2	2:C:608:GLY:N	2.47	0.47
3:N:786:ILE:HD13	3:N:1027:GLY:HA3	1.97	0.47
1:K:19:GLU:O	1:K:201:THR:N	2.40	0.47
1:A:216:GLU:O	1:A:220:GLU:HB2	2.14	0.47
4:O:38:THR:OG1	4:O:39:VAL:N	2.48	0.47
3:D:1219:GLU:HB2	4:E:17:TYR:HE2	1.79	0.47
2:C:423:ALA:CB	7:I:1:DG:C5'	2.78	0.46
3:D:1102:THR:O	3:D:1103:HIS:O	2.33	0.46
7:I:7:DT:H2"	7:I:8:DG:OP2	2.14	0.46
3:N:1107:VAL:O	3:N:1218:GLY:N	2.48	0.46
3:N:728:LEU:HG	3:N:729:HIS:O	2.14	0.46
3:N:736:PHE:CD1	3:N:736:PHE:N	2.79	0.46
3:N:704:ARG:CZ	3:N:737:ASN:O	2.62	0.46
1:A:9:PRO:HB3	1:A:25:LEU:HG	1.96	0.46
2:C:1022:GLY:CA	2:C:1026:GLN:O	2.62	0.46
3:N:1381:VAL:HA	3:N:1417:TRP:HA	1.96	0.46
3:N:1443:THR:HA	3:N:1446:VAL:HG21	1.97	0.46
3:D:41:ARG:HD3	3:D:43:GLY:H	1.80	0.46
3:D:964:LEU:O	3:D:968:ASP:HB2	2.14	0.46
2:M:580:MET:SD	2:M:584:GLU:CG	3.00	0.46
2:M:589:ARG:HA	2:M:596:TYR:CE1	2.50	0.46
2:M:35:PRO:C	2:M:37:GLU:N	2.67	0.46
2:C:832:LYS:O	2:C:833:LEU:C	2.53	0.46
2:M:162:ILE:HD12	2:M:172:ILE:CB	2.45	0.46
4:O:34:GLY:O	4:O:37:ASN:ND2	2.48	0.46
5:G:2:DT:OP1	5:G:2:DT:H6	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:356:ARG:NH1	2:M:356:ARG:HB2	2.30	0.46
2:C:627:ARG:O	2:C:638:ASP:HB3	2.15	0.46
1:B:73:GLU:HB3	1:B:77:GLU:CG	2.45	0.46
2:C:578:VAL:HG13	2:C:671:ASN:CB	2.45	0.46
2:C:7:GLY:HA3	2:C:907:ASP:OD2	2.14	0.46
1:L:162:ILE:HD11	1:L:163:ASN:ND2	2.30	0.46
1:L:109:VAL:O	1:L:129:ILE:HG12	2.14	0.46
2:C:1087:VAL:HG13	2:C:1088:LEU:N	2.31	0.46
2:C:328:LEU:HB2	2:C:433:THR:CB	2.44	0.46
3:D:1445:HIS:O	3:D:1446:VAL:C	2.53	0.46
3:D:10:ILE:O	3:D:1450:ALA:O	2.32	0.46
2:C:1034:GLU:OE1	3:D:619:LEU:HD22	2.15	0.46
2:C:1039:ALA:HB2	3:D:707:THR:HG22	1.96	0.46
5:G:23:DG:C2	6:H:11:C:O2	2.68	0.46
2:M:402:SER:HB3	2:M:566:THR:O	2.16	0.46
2:M:257:VAL:C	2:M:259:GLY:H	2.19	0.46
3:N:115:LEU:O	3:N:115:LEU:HD23	2.15	0.46
3:N:1447:LEU:HA	3:N:1450:ALA:HB3	1.97	0.46
2:M:437:ARG:O	2:M:438:ILE:HD12	2.14	0.46
2:C:257:VAL:C	2:C:259:GLY:H	2.19	0.46
3:N:693:GLU:CA	4:O:48:MET:CE	2.83	0.46
3:D:771:SER:O	3:D:774:SER:O	2.33	0.46
3:D:800:LYS:HG3	3:D:829:VAL:HG12	1.98	0.46
2:M:139:GLN:OE1	2:M:414:GLY:HA3	2.15	0.46
4:E:41:GLU:N	4:E:42:PRO:CD	2.77	0.46
2:C:724:ARG:NH2	2:C:734:LEU:O	2.48	0.46
2:C:737:LEU:HA	2:C:743:VAL:HA	1.97	0.46
2:M:605:LYS:O	2:M:611:ILE:HA	2.15	0.46
2:C:139:GLN:OE1	2:C:418:LEU:HD22	2.14	0.46
1:A:127:LEU:HG	1:A:129:ILE:HD13	1.97	0.46
2:C:499:ALA:HA	2:C:532:MET:SD	2.55	0.46
1:L:57:TYR:CE2	1:L:161:ARG:HG2	2.51	0.46
2:C:1006:HIS:HA	2:C:1027:PHE:CD1	2.50	0.46
1:L:43:ILE:HG23	1:L:47:SER:HB3	1.97	0.46
1:B:184:THR:O	1:B:192:LEU:HD12	2.16	0.46
1:B:185:ARG:HG2	1:B:186:LEU:N	2.29	0.46
2:C:606:VAL:HG21	2:C:645:VAL:HG22	1.96	0.46
2:M:575:GLN:C	2:M:667:ALA:HB1	2.36	0.46
2:C:1093:GLN:O	3:D:21:TRP:CZ3	2.68	0.46
2:C:1095:LEU:CB	2:C:1097:LEU:HD23	2.42	0.46
3:D:1378:TYR:HH	3:D:1431:THR:HA	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1433:SER:CA	3:D:1457:ASP:OD2	2.64	0.46
2:M:874:LEU:HD11	3:N:783:ARG:HB2	1.97	0.46
3:N:1200:VAL:HG12	3:N:1201:CYS:O	2.14	0.46
4:E:95:VAL:O	4:E:96:GLU:HB2	2.15	0.46
3:N:1438:ALA:CB	3:N:1446:VAL:HG11	2.45	0.46
3:D:1109:GLU:HG2	3:D:1202:GLN:N	2.29	0.46
3:D:1027:GLY:O	3:D:1028:ALA:C	2.54	0.46
3:N:1292:VAL:HG23	3:N:1305:LEU:CG	2.37	0.46
3:N:55:ASP:O	3:N:81:THR:O	2.33	0.46
2:C:304:LEU:N	2:C:305:PRO:CD	2.78	0.46
3:D:30:GLU:CB	3:D:41:ARG:HG3	2.45	0.46
2:M:691:SER:HA	2:M:858:MET:CE	2.44	0.46
2:M:5:ARG:HB3	2:M:902:ILE:CB	2.43	0.46
1:K:27:PRO:HG2	1:K:186:LEU:HD13	1.97	0.46
2:C:1101:THR:O	2:C:1102:LEU:HD12	2.16	0.46
1:K:213:GLN:O	1:K:216:GLU:HB2	2.15	0.46
3:N:1122:LEU:HD11	3:N:1186:VAL:HG23	1.96	0.46
3:N:891:GLU:O	3:N:893:GLU:N	2.49	0.46
1:B:65:PHE:CD1	1:B:65:PHE:N	2.83	0.46
3:D:1042:ARG:NE	3:D:1073:SER:HB2	2.30	0.46
2:M:1053:LEU:HD12	3:N:1469:GLY:CA	2.44	0.46
3:N:698:LYS:HE2	4:O:59:ASN:OD1	2.16	0.46
3:N:741:ASP:OD2	3:N:743:ASP:OD2	2.33	0.46
3:N:774:SER:OG	3:N:776:GLU:HB2	2.15	0.46
3:N:1129:THR:CB	3:N:1320:GLU:OE1	2.62	0.46
2:C:1012:PRO:HB2	2:C:1021:LEU:O	2.16	0.46
4:E:45:ARG:HG2	4:E:46:PRO:CD	2.45	0.46
3:N:455:ARG:HD2	3:N:455:ARG:N	2.30	0.46
3:D:1206:GLY:HA3	3:D:1366:LYS:HZ2	1.80	0.46
2:C:259:GLY:HA2	2:C:290:LEU:O	2.15	0.46
2:C:676:ILE:CG2	2:C:988:VAL:HG22	2.44	0.46
2:M:692:GLU:CD	2:M:854:PRO:HA	2.36	0.46
2:M:869:VAL:CG2	2:M:870:ILE:N	2.78	0.46
1:L:76:VAL:O	1:L:79:ILE:HG12	2.15	0.46
2:M:287:GLY:O	2:M:288:ARG:C	2.53	0.46
3:N:675:ARG:HA	3:N:678:GLU:OE2	2.16	0.46
2:C:724:ARG:HD2	2:C:737:LEU:O	2.16	0.46
3:N:1396:GLU:O	3:N:1399:ASP:HB2	2.16	0.46
3:N:840:LYS:HB3	3:N:841:TYR:CE2	2.51	0.46
3:N:112:ILE:HD11	3:N:116:LEU:CD1	2.45	0.46
2:M:95:TYR:CD2	2:M:114:PHE:HB3	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:295:ASP:C	2:C:297:GLU:H	2.18	0.46
4:E:85:LEU:HD23	4:E:85:LEU:C	2.36	0.46
2:C:1091:GLU:O	2:C:1094:ALA:HB3	2.15	0.46
2:C:1115:LEU:CD1	2:C:1115:LEU:N	2.78	0.46
2:C:468:ARG:CB	2:C:485:TYR:HB3	2.45	0.46
3:D:1433:SER:HA	3:D:1457:ASP:OD2	2.16	0.46
3:D:1468:LEU:HD23	3:D:1468:LEU:O	2.15	0.46
5:G:10:DA:H2''	5:G:11:DC:H6	1.80	0.46
3:N:623:VAL:CG1	3:N:624:ASP:N	2.79	0.46
6:Y:5:C:H2'	6:Y:6:C:OP1	2.15	0.46
2:M:291:ALA:O	2:M:292:ARG:HB2	2.15	0.46
1:A:34:VAL:HG13	1:A:35:THR:N	2.30	0.46
3:N:1112:CYS:HB2	3:N:1195:GLN:HG2	1.98	0.46
3:N:1225:ALA:O	3:N:1229:ILE:HG13	2.15	0.46
3:N:658:LEU:O	3:N:661:MET:HB2	2.14	0.46
2:M:437:ARG:CZ	2:M:491:GLU:OE2	2.64	0.46
2:C:130:ASN:HD21	2:C:383:ARG:HH21	1.64	0.46
3:D:1341:PRO:C	3:D:1343:ALA:N	2.69	0.46
3:D:949:ILE:HD13	3:D:1019:PRO:HB2	1.97	0.46
2:M:754:ILE:HA	2:M:791:ARG:HA	1.98	0.46
6:H:6:C:C4	6:H:7:G:C6	3.03	0.46
4:O:23:VAL:O	4:O:26:ARG:HB3	2.15	0.46
2:C:918:LEU:O	2:C:967:PHE:HE2	1.99	0.46
3:N:785:ILE:HD12	3:N:939:PHE:CE2	2.51	0.46
2:C:310:LEU:O	2:C:314:THR:HG23	2.16	0.46
2:C:580:MET:CE	2:C:902:ILE:HG12	2.46	0.46
1:B:59:GLU:CB	1:B:137:ARG:HH22	2.27	0.46
2:M:221:LEU:HG	2:M:222:MET:N	2.30	0.46
1:K:49:PRO:CA	1:K:148:VAL:HG22	2.46	0.46
1:L:165:ILE:HG13	1:L:165:ILE:O	2.16	0.46
2:C:326:ASP:O	2:C:431:HIS:CG	2.69	0.46
3:D:1096:ARG:NH2	3:D:1440:PHE:CE2	2.84	0.46
3:D:704:ARG:HB2	3:D:745:MET:CE	2.46	0.46
4:O:8:LYS:O	4:O:12:MET:HG3	2.14	0.46
3:N:19:ARG:HE	3:N:516:ALA:HB1	1.80	0.46
3:N:1379:VAL:CG1	3:N:1419:PRO:HA	2.41	0.46
2:C:263:ASP:HB2	2:C:264:PRO:CD	2.39	0.46
3:N:160:GLU:CB	3:N:165:LYS:HB2	2.45	0.46
3:D:1336:LEU:HD12	3:D:1340:GLY:HA2	1.98	0.46
3:D:33:ASN:HD21	3:D:35:ARG:HH12	1.64	0.46
2:M:151:ASP:OD1	2:M:152:PRO:HD2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:428:ARG:NE	2:M:451:LEU:HD21	2.31	0.46
3:D:758:GLU:CB	3:D:762:GLN:HE21	2.27	0.46
2:M:342:ASP:HA	2:M:345:ARG:HD3	1.97	0.46
2:M:284:ARG:HG2	2:M:301:GLU:CD	2.36	0.46
1:K:11:PHE:CA	1:K:25:LEU:HD12	2.46	0.46
2:M:680:ASP:HB2	2:M:682:TYR:CE2	2.51	0.46
2:C:358:ARG:NH1	2:C:374:ASN:OD1	2.46	0.46
2:C:966:LEU:HD12	2:C:966:LEU:HA	1.77	0.46
7:I:17:DA:C8	7:I:17:DA:O5'	2.66	0.46
2:C:73:LEU:CB	2:C:93:PRO:O	2.61	0.46
3:D:1127:GLU:O	3:D:1128:VAL:CG2	2.63	0.46
3:D:1164:ARG:HG2	3:D:1165:TYR:N	2.31	0.46
2:M:773:LEU:O	2:M:777:ILE:HG13	2.15	0.46
2:M:616:GLU:OE1	2:M:616:GLU:HA	2.16	0.46
2:C:1093:GLN:HB3	3:D:21:TRP:CZ3	2.50	0.46
3:D:521:PRO:HD2	3:D:524:LEU:CD2	2.45	0.46
2:C:1035:MET:O	3:D:707:THR:HB	2.15	0.46
7:I:10:DG:C2'	7:I:11:DG:OP2	2.44	0.46
2:M:395:LYS:HG2	2:M:397:GLU:HG3	1.97	0.46
3:N:1462:LEU:O	3:N:1466:VAL:N	2.45	0.46
5:X:23:DG:H2'	5:X:24:DC:H6	1.78	0.46
2:M:1021:LEU:HD13	6:Y:5:C:O2	2.16	0.46
3:N:1364:HIS:ND1	3:N:1365:ASP:N	2.64	0.46
3:N:1277:ILE:HB	3:N:1294:VAL:CG2	2.45	0.46
2:C:560:MET:O	2:C:564:MET:HG2	2.15	0.46
2:C:679:PHE:N	2:C:683:ASN:HD21	2.07	0.46
1:K:70:GLY:H	2:M:607:ASP:CG	2.17	0.46
2:C:157:ARG:NH1	2:C:314:THR:O	2.46	0.46
3:D:100:ALA:N	3:D:128:TYR:OH	2.49	0.46
3:N:1399:ASP:O	3:N:1403:LEU:HG	2.15	0.46
2:C:212:GLY:HA3	2:C:218:VAL:CG2	2.46	0.46
3:N:1066:THR:HG22	3:N:1069:GLU:HB2	1.98	0.46
2:M:510:ALA:O	2:M:513:VAL:HG23	2.15	0.46
2:M:839:LEU:CD2	2:M:996:LYS:HA	2.46	0.46
1:L:73:GLU:OE1	1:L:130:ALA:HA	2.16	0.46
1:K:94:LEU:HD11	1:K:119:ASP:CB	2.46	0.46
1:B:6:LEU:O	1:B:8:ALA:N	2.47	0.46
2:C:1098:ASP:OD1	3:D:17:LYS:HD3	2.16	0.46
3:D:610:LYS:O	3:D:615:ARG:CG	2.54	0.46
3:N:711:LEU:C	3:N:713:ILE:N	2.69	0.46
2:M:874:LEU:HD13	3:N:783:ARG:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:O:15:SER:O	4:O:18:ARG:HB3	2.16	0.46
2:C:1010:THR:HG22	2:C:1011:GLY:N	2.31	0.46
3:N:484:PRO:HB3	3:N:488:ARG:CZ	2.45	0.46
2:C:868:ASP:N	2:C:868:ASP:OD1	2.49	0.46
3:N:1281:VAL:CG1	3:N:1282:ARG:N	2.79	0.46
3:D:711:LEU:C	3:D:713:ILE:N	2.69	0.46
3:D:1087:ARG:NE	3:D:1236:LEU:HD11	2.30	0.46
3:D:133:ILE:HG23	3:D:456:MET:HB3	1.97	0.46
3:D:660:LYS:HZ3	3:D:660:LYS:HB2	1.80	0.46
2:C:101:ILE:CD1	2:C:107:LEU:HD22	2.46	0.46
3:N:796:ARG:HB2	3:N:828:LYS:HD2	1.97	0.46
2:C:54:ILE:HG12	2:C:64:LEU:CD2	2.45	0.46
2:M:650:ARG:CG	2:M:653:ASP:HB2	2.36	0.46
2:M:101:ILE:HG23	2:M:107:LEU:CD2	2.45	0.46
1:B:74:ASP:HB3	3:D:872:ARG:NH2	2.21	0.46
2:C:726:ILE:HD12	2:C:726:ILE:N	2.31	0.46
2:C:141:HIS:O	2:C:331:ARG:HB3	2.15	0.46
3:N:1117:TYR:HE2	3:N:1151:ARG:NH1	2.13	0.46
1:K:220:GLU:O	1:K:224:TYR:CE2	2.69	0.46
3:D:163:TYR:N	3:D:163:TYR:HD1	2.13	0.46
1:L:48:ILE:CD1	1:L:210:ALA:HB1	2.45	0.46
1:L:206:THR:HG22	1:L:209:GLU:H	1.79	0.46
3:N:1158:VAL:HG12	3:N:1159:ARG:N	2.31	0.46
2:M:549:PHE:CE2	2:M:886:LEU:HB3	2.51	0.46
2:M:277:ALA:O	2:M:278:GLU:C	2.54	0.46
3:N:471:GLU:OE1	3:N:471:GLU:N	2.33	0.46
2:C:329:GLY:O	2:C:330:ASN:ND2	2.39	0.46
3:D:1445:HIS:O	3:D:1448:THR:HB	2.16	0.46
3:N:712:GLY:C	3:N:713:ILE:HG13	2.36	0.46
1:A:31:GLY:O	1:A:34:VAL:HG13	2.15	0.46
3:N:136:ASP:OD2	3:N:467:GLU:CD	2.54	0.46
3:N:1438:ALA:HB2	3:N:1446:VAL:HG11	1.98	0.46
5:X:17:DA:C2'	5:X:17:DA:O5'	2.61	0.46
7:Z:3:DA:H2''	7:Z:4:DG:OP2	2.16	0.46
2:C:300:ASP:O	2:C:304:LEU:CD2	2.64	0.46
4:O:48:MET:N	4:O:54:LEU:HB2	2.31	0.46
2:M:673:LEU:HB3	2:M:868:ASP:OD1	2.16	0.46
3:N:950:GLY:N	3:N:953:ASP:OD1	2.49	0.46
3:D:554:LEU:HG	3:D:558:LEU:HD11	1.98	0.46
2:M:313:LEU:HA	2:M:321:GLU:OE1	2.15	0.46
2:M:140:ILE:HA	2:M:332:ARG:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:917:GLN:O	3:N:920:LEU:HB2	2.16	0.46
2:M:266:ARG:CA	2:M:288:ARG:HD3	2.45	0.46
3:D:1197:ARG:NH1	3:D:1198:TYR:HD1	2.14	0.46
3:D:1397:LYS:CE	3:D:1432:LYS:HZ1	2.29	0.46
3:N:1259:VAL:O	3:N:1263:PHE:HD1	1.98	0.46
2:M:737:LEU:HA	2:M:743:VAL:HA	1.97	0.46
3:N:1394:VAL:O	3:N:1397:LYS:HB3	2.15	0.46
3:D:127:LEU:HD12	3:D:127:LEU:O	2.15	0.46
3:D:1487:VAL:HG12	3:D:1488:ASP:N	2.30	0.46
3:N:1341:PRO:C	3:N:1343:ALA:N	2.68	0.46
2:M:94:LEU:HD12	2:M:95:TYR:N	2.30	0.46
4:O:41:GLU:HG2	4:O:42:PRO:HD3	1.98	0.46
3:D:1372:VAL:HA	3:D:1375:MET:CE	2.45	0.46
2:C:136:ILE:HG21	2:C:336:VAL:HG13	1.98	0.46
2:C:1032:PHE:CE2	2:C:1037:VAL:HG22	2.51	0.46
2:C:543:ASN:OD1	2:C:543:ASN:C	2.54	0.46
3:D:105:VAL:HA	3:D:112:ILE:HG21	1.98	0.46
3:D:1450:ALA:O	3:D:1453:ALA:O	2.33	0.46
3:D:25:GLU:HB2	3:D:92:HIS:CE1	2.50	0.46
2:M:683:ASN:ND2	2:M:683:ASN:C	2.68	0.46
3:N:1209:LEU:HD21	4:O:16:LYS:CE	2.45	0.46
5:X:10:DA:H1'	5:X:11:DC:H5'	1.97	0.46
5:X:10:DA:H2''	5:X:11:DC:O5'	2.16	0.46
5:X:12:DA:C2	5:X:13:DA:C5	3.04	0.46
7:Z:6:DT:H2''	7:Z:7:DT:OP2	2.16	0.46
3:N:1294:VAL:CG1	3:N:1319:VAL:HG21	2.27	0.46
3:D:925:GLU:OE1	4:E:6:ILE:N	2.45	0.46
4:E:4:PRO:HG2	4:E:66:LYS:HZ2	1.80	0.46
2:C:185:LYS:HG2	2:C:188:LYS:O	2.16	0.46
3:D:676:MET:SD	3:D:682:ASP:O	2.74	0.46
2:C:141:HIS:HB3	2:C:418:LEU:HD23	1.98	0.46
1:L:59:GLU:HB2	1:L:137:ARG:NH2	2.30	0.46
3:D:1153:VAL:CA	3:N:561:GLY:HA3	2.45	0.46
1:A:117:VAL:O	1:A:120:VAL:HG12	2.16	0.46
1:A:30:ARG:HH11	1:A:191:ASP:HB2	1.80	0.46
2:C:136:ILE:CG2	2:C:336:VAL:HG22	2.46	0.45
3:D:1031:ASN:HA	3:D:1032:PRO:HD3	1.51	0.45
2:C:458:TYR:O	2:C:459:ALA:C	2.54	0.45
3:D:10:ILE:HD11	3:D:1434:TRP:HE1	1.80	0.45
3:D:629:SER:HB3	3:D:726:ILE:HD11	1.98	0.45
2:M:1038:TRP:HA	2:M:1041:GLU:CD	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1060:ILE:HG23	2:M:1061:GLU:N	2.26	0.45
3:N:637:LEU:HD11	3:N:642:CYS:HA	1.97	0.45
3:N:762:GLN:HE22	4:O:17:TYR:HD1	1.65	0.45
3:N:1105:ILE:HB	3:N:1222:GLY:HA3	1.98	0.45
3:N:613:ARG:O	3:N:616:GLN:HB3	2.16	0.45
1:K:96:THR:HA	1:K:144:VAL:O	2.16	0.45
3:N:1094:LEU:O	3:N:1097:LYS:HB2	2.16	0.45
3:N:121:THR:OG1	7:Z:8:DG:H5"	2.16	0.45
2:C:301:GLU:HA	2:C:304:LEU:HD21	1.98	0.45
3:N:76:CYS:SG	3:N:76:CYS:O	2.74	0.45
2:M:673:LEU:HD23	2:M:674:VAL:N	2.31	0.45
2:M:677:MET:CB	3:N:948:THR:CG2	2.94	0.45
2:M:692:GLU:OE1	2:M:854:PRO:HA	2.16	0.45
3:D:554:LEU:CD1	3:D:558:LEU:HD21	2.44	0.45
3:N:1256:LEU:HB3	3:N:1257:PRO:HD3	1.98	0.45
2:M:313:LEU:CD1	2:M:321:GLU:HG2	2.36	0.45
4:O:64:ALA:O	4:O:68:LEU:HD13	2.16	0.45
3:D:1154:GLU:HB2	3:N:562:ALA:CA	2.47	0.45
2:C:589:ARG:HA	2:C:596:TYR:OH	2.16	0.45
3:N:116:LEU:O	3:N:118:LEU:N	2.49	0.45
2:C:937:ASP:OD2	2:C:938:LYS:N	2.49	0.45
3:N:431:VAL:HG12	3:N:432:TYR:N	2.30	0.45
3:N:1232:PRO:O	3:N:1234:THR:N	2.40	0.45
1:A:2:LEU:HA	1:A:6:LEU:HD22	1.98	0.45
2:C:307:LEU:HD12	2:C:307:LEU:HA	1.74	0.45
2:C:442:GLU:CD	2:C:543:ASN:HD22	2.20	0.45
3:D:1263:PHE:HE2	3:D:1371:VAL:HG11	1.80	0.45
3:D:773:ALA:HA	3:D:1367:HIS:HE2	1.80	0.45
3:D:1428:ALA:O	3:D:1431:THR:HG22	2.16	0.45
3:N:713:ILE:C	3:N:714:GLN:HG3	2.36	0.45
2:C:1054:THR:O	2:C:1056:LYS:N	2.49	0.45
3:D:807:ALA:HA	3:D:833:GLU:HB2	1.97	0.45
2:M:92:ALA:HB2	2:M:120:LEU:HD11	1.97	0.45
3:N:520:LEU:HD12	3:N:521:PRO:HD2	1.96	0.45
3:D:935:LYS:HE2	3:D:936:TYR:HB2	1.98	0.45
3:N:796:ARG:NH2	3:N:859:ASP:HB2	2.32	0.45
2:M:71:TYR:HA	2:M:96:ALA:HB2	1.98	0.45
2:M:142:ARG:HA	2:M:331:ARG:HA	1.97	0.45
3:D:646:LYS:HD2	3:D:688:TRP:CZ2	2.51	0.45
2:C:159:ILE:HG21	2:C:175:GLU:OE2	2.16	0.45
1:L:14:ARG:HH21	1:L:22:GLU:CD	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1172:HIS:HA	3:N:1175:ILE:HD12	1.97	0.45
2:C:603:VAL:HB	2:C:646:GLY:N	2.31	0.45
2:C:547:ILE:HB	2:C:550:LEU:HD13	1.96	0.45
3:N:895:VAL:O	3:N:895:VAL:HG12	2.16	0.45
3:D:1058:ARG:HB3	3:D:1058:ARG:CZ	2.45	0.45
2:M:84:ARG:HA	2:M:131:GLY:HA2	1.96	0.45
3:D:6:ARG:HD2	3:D:1470:ARG:NH1	2.27	0.45
3:N:1481:VAL:O	3:N:1483:PHE:N	2.50	0.45
3:N:703:ASN:ND2	3:N:713:ILE:HD11	2.32	0.45
2:C:854:PRO:HG2	2:C:857:ASP:OD2	2.17	0.45
3:N:1223:ILE:O	3:N:1226:ALA:N	2.49	0.45
3:D:623:VAL:CG1	3:D:624:ASP:N	2.79	0.45
3:N:480:GLU:OE1	3:N:488:ARG:CG	2.60	0.45
3:N:1445:HIS:NE2	3:N:1449:GLU:CD	2.70	0.45
3:D:1189:ARG:HG3	3:D:1189:ARG:NH1	2.31	0.45
2:M:92:ALA:CB	2:M:120:LEU:HD21	2.47	0.45
1:K:38:ASN:O	1:K:42:ARG:HG3	2.16	0.45
3:N:1268:PRO:CG	3:N:1329:ALA:CB	2.93	0.45
2:C:677:MET:SD	2:C:987:ILE:HD13	2.55	0.45
1:L:179:PHE:HB3	1:L:197:LEU:HD12	1.98	0.45
2:C:162:ILE:CG2	2:C:172:ILE:HD13	2.47	0.45
2:C:720:GLU:OE1	2:C:758:ARG:HD2	2.16	0.45
2:M:200:LEU:HD13	2:M:300:ASP:CG	2.36	0.45
3:D:1407:LEU:HD23	2:M:361:MET:SD	2.56	0.45
2:C:141:HIS:CD2	2:C:332:ARG:O	2.70	0.45
1:L:58:ILE:HD13	1:L:139:ASN:O	2.16	0.45
2:M:599:GLU:OE2	2:M:619:ARG:NH2	2.49	0.45
2:M:984:GLU:HG3	3:N:791:TYR:OH	2.16	0.45
2:C:889:HIS:NE2	2:C:970:GLY:HA3	2.31	0.45
2:M:378:LEU:O	2:M:382:ILE:HG13	2.16	0.45
2:M:183:SER:CB	2:M:190:LYS:HD3	2.45	0.45
3:N:799:LYS:CB	3:N:826:PRO:HG2	2.46	0.45
3:D:1115:THR:CG2	3:D:1151:ARG:HH21	2.30	0.45
3:N:499:VAL:O	3:N:500:ARG:C	2.54	0.45
3:N:827:ILE:H	3:N:827:ILE:HD12	1.80	0.45
1:L:183:ASP:HA	1:L:192:LEU:O	2.16	0.45
2:M:601:GLY:HA3	2:M:615:TYR:HA	1.98	0.45
2:C:137:VAL:CG2	2:C:391:LEU:HG	2.46	0.45
2:C:25:SER:O	2:C:29:ALA:HB2	2.17	0.45
2:M:317:VAL:C	2:M:319:GLY:N	2.68	0.45
3:D:1144:LEU:HD22	3:D:1186:VAL:HG11	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1041:LEU:HD13	3:D:1045:MET:HB2	1.98	0.45
3:D:1093:TYR:CE2	3:D:1096:ARG:CZ	3.00	0.45
3:D:1227:GLN:C	3:D:1229:ILE:H	2.19	0.45
2:C:1095:LEU:HD23	3:D:582:LEU:HD22	1.98	0.45
3:D:612:GLY:H	3:D:615:ARG:CB	2.29	0.45
3:D:9:ARG:NH1	3:D:1454:GLY:HA3	2.31	0.45
7:I:2:DT:H3'	7:I:2:DT:P	2.57	0.45
7:I:5:DC:H1'	7:I:6:DT:O5'	2.16	0.45
3:N:699:VAL:HG21	3:N:760:ARG:CB	2.44	0.45
3:N:760:ARG:HH11	4:O:61:VAL:CG2	2.07	0.45
3:N:1486:VAL:HG21	4:O:29:GLN:HE22	1.81	0.45
6:Y:7:G:H2'	6:Y:7:G:N3	2.32	0.45
3:N:1031:ASN:C	3:N:1033:GLN:N	2.69	0.45
1:A:43:ILE:CD1	1:B:32:PHE:HE2	2.26	0.45
3:N:1189:ARG:HD3	3:N:1190:SER:H	1.82	0.45
3:N:1127:GLU:O	3:N:1128:VAL:HG23	2.17	0.45
3:D:625:TYR:HB3	3:D:749:VAL:CG2	2.46	0.45
7:Z:6:DT:H2'	7:Z:7:DT:H72	1.98	0.45
3:D:1189:ARG:HA	3:D:1189:ARG:HD3	1.63	0.45
3:D:1191:PRO:HB3	3:D:1200:VAL:HG21	1.99	0.45
2:C:129:ILE:HG22	2:C:130:ASN:H	1.78	0.45
3:N:45:PHE:CE1	3:N:522:PRO:HB3	2.51	0.45
2:C:267:TYR:CB	2:C:272:ALA:HB1	2.47	0.45
2:M:754:ILE:HG12	2:M:791:ARG:NH1	2.31	0.45
2:M:677:MET:HA	3:N:948:THR:HG22	1.98	0.45
6:H:9:C:H2'	6:H:10:G:C8	2.52	0.45
1:K:111:ALA:O	1:K:122:ILE:HD13	2.17	0.45
1:K:56:VAL:HG13	1:K:142:VAL:HG12	1.97	0.45
1:B:101:LEU:CD1	1:B:113:ASP:HB3	2.45	0.45
3:N:1066:THR:HG22	3:N:1069:GLU:CG	2.46	0.45
1:B:22:GLU:O	1:B:23:PHE:CD1	2.69	0.45
1:B:105:GLY:O	1:B:132:LEU:HB3	2.16	0.45
2:M:738:ASP:HB2	2:M:744:ARG:HB3	1.98	0.45
2:C:895:TYR:N	2:C:991:GLN:NE2	2.64	0.45
3:N:1009:LYS:HE3	3:N:1013:GLU:OE2	2.16	0.45
3:D:485:SER:O	3:D:489:ARG:HB3	2.17	0.45
3:D:525:ARG:HB2	3:D:538:SER:CB	2.44	0.45
5:G:14:DG:H2''	5:G:15:DC:OP2	2.16	0.45
3:D:741:ASP:C	6:H:14:G:H5''	2.37	0.45
7:I:11:DG:H8	7:I:11:DG:OP2	2.00	0.45
1:A:35:THR:HG23	1:B:42:ARG:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1109:GLU:OE2	3:N:1217:ILE:HG12	2.17	0.45
3:N:650:LEU:O	3:N:654:LYS:CB	2.64	0.45
2:M:1098:ASP:HB2	3:N:21:TRP:CZ2	2.50	0.45
4:E:47:LYS:HA	4:E:54:LEU:HB3	1.99	0.45
5:X:7:DA:H4'	5:X:7:DA:OP1	2.16	0.45
2:M:119:PRO:HG2	2:M:386:PHE:CD2	2.51	0.45
1:K:34:VAL:HG13	1:K:35:THR:H	1.82	0.45
3:N:1330:ILE:HB	3:N:1347:TYR:OH	2.16	0.45
3:N:143:ASN:HA	3:N:161:LEU:CD1	2.45	0.45
2:C:875:GLY:O	2:C:879:ARG:HD2	2.15	0.45
4:O:54:LEU:CA	4:O:58:PRO:HG2	2.38	0.45
3:D:542:ASP:HB2	3:D:600:LEU:CD2	2.45	0.45
2:M:694:LEU:O	2:M:699:PHE:HB2	2.16	0.45
2:M:691:SER:CB	2:M:868:ASP:O	2.65	0.45
3:N:860:LEU:HD22	3:N:881:LEU:HD23	1.97	0.45
1:L:86:VAL:HG12	1:L:124:ASN:HB2	1.98	0.45
3:D:528:VAL:CG1	3:D:529:GLN:H	2.28	0.45
2:C:838:LYS:HZ3	3:D:742:GLY:CA	2.30	0.45
3:D:1115:THR:HG22	3:D:1151:ARG:NH2	2.32	0.45
2:C:714:ASP:HB2	2:C:818:GLY:O	2.17	0.45
2:M:832:LYS:O	2:M:834:GLN:N	2.49	0.45
2:M:700:TYR:HB2	2:M:833:LEU:HD22	1.98	0.45
3:D:895:VAL:HA	3:D:898:GLU:OE1	2.15	0.45
2:C:459:ALA:HB1	2:C:467:ILE:HG21	1.98	0.45
3:D:1264:GLU:O	3:D:1265:ALA:C	2.53	0.45
3:D:1442:ASN:HB3	3:D:1444:THR:H	1.82	0.45
2:M:684:PHE:HD2	3:N:740:PHE:CD1	2.34	0.45
3:N:1464:GLU:HG3	3:N:1465:ASN:N	2.31	0.45
3:N:700:VAL:HG22	3:N:718:PRO:HG2	1.98	0.45
3:N:787:LEU:HA	3:N:787:LEU:HD12	1.73	0.45
3:N:1216:SER:OG	4:O:15:SER:HA	2.16	0.45
2:M:292:ARG:HG2	2:M:298:PHE:HA	1.97	0.45
3:N:577:ALA:O	3:N:581:LEU:HD23	2.17	0.45
3:N:606:ILE:CG2	3:N:607:LEU:N	2.80	0.45
3:N:462:GLN:HA	3:N:513:ILE:HG21	1.98	0.45
5:X:17:DA:H2''	5:X:18:DC:O5'	2.16	0.45
7:Z:5:DC:C2'	7:Z:6:DT:H71	2.46	0.45
3:D:1194:CYS:HB2	3:D:1204:CYS:CB	2.46	0.45
3:N:52:PRO:HG2	3:N:85:VAL:HG21	1.97	0.45
2:M:376:ARG:CB	2:M:377:PRO:HD3	2.47	0.45
3:N:186:VAL:HG12	3:N:187:LYS:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:589:ARG:HA	2:M:596:TYR:CZ	2.52	0.45
2:M:6:PHE:HD1	2:M:902:ILE:O	2.00	0.45
2:C:783:ARG:NH2	2:C:785:VAL:HG11	2.32	0.45
3:D:483:HIS:ND1	3:D:483:HIS:N	2.65	0.45
3:D:1389:LEU:HD12	3:D:1390:LEU:H	1.81	0.45
2:C:588:VAL:HG23	2:C:596:TYR:OH	2.17	0.45
1:K:49:PRO:HB3	1:K:148:VAL:HG22	1.97	0.45
3:N:1348:LEU:CD1	3:N:1348:LEU:N	2.79	0.45
2:M:564:MET:CE	2:M:840:ALA:HB3	2.46	0.45
1:L:143:ARG:HD2	1:L:160:ASP:OD2	2.17	0.45
2:M:810:ASP:HA	2:M:811:PRO:HD3	1.81	0.45
2:C:396:ASP:HA	2:C:633:GLN:HE22	1.82	0.45
2:C:405:ARG:C	2:C:407:LYS:H	2.20	0.45
2:C:431:HIS:CG	2:C:432:ARG:H	2.34	0.45
2:C:1053:LEU:HD13	3:D:1466:VAL:O	2.16	0.45
3:D:634:GLY:HA2	3:D:727:GLN:OE1	2.16	0.45
3:D:631:ILE:HG12	3:D:743:ASP:O	2.17	0.45
6:H:11:C:O2'	6:H:12:U:H5'	2.16	0.45
2:M:1012:PRO:HB2	2:M:1021:LEU:O	2.17	0.45
2:M:1048:THR:OG1	3:N:755:ALA:CB	2.64	0.45
3:N:771:SER:HB3	3:N:778:LEU:CD1	2.31	0.45
3:N:1380:GLU:HG3	3:N:1381:VAL:N	2.30	0.45
2:M:73:LEU:C	2:M:73:LEU:HD12	2.37	0.45
2:M:434:HIS:ND1	2:M:434:HIS:N	2.63	0.45
2:C:144:PRO:HB2	2:C:267:TYR:HE1	1.81	0.45
3:N:143:ASN:CG	3:N:144:GLY:N	2.69	0.45
3:N:568:ARG:HE	3:N:572:ARG:CG	2.29	0.45
1:L:186:LEU:O	1:L:186:LEU:HD23	2.17	0.45
2:M:693:GLU:HA	2:M:696:LYS:HE3	1.98	0.45
3:N:847:ASP:O	3:N:848:GLU:C	2.54	0.45
3:D:804:LEU:HD23	3:D:804:LEU:H	1.81	0.45
2:C:21:ILE:H	2:C:21:ILE:CD1	2.28	0.45
5:G:2:DT:OP2	5:G:2:DT:C4'	2.64	0.45
2:C:157:ARG:HD3	2:C:314:THR:CG2	2.46	0.45
2:C:905:ILE:N	2:C:905:ILE:HD12	2.32	0.45
4:E:13:VAL:CG2	4:E:19:LEU:HD13	2.45	0.45
3:N:1138:ALA:O	3:N:1141:GLU:N	2.50	0.45
3:N:1341:PRO:C	3:N:1343:ALA:H	2.19	0.45
3:N:117:ASP:HB2	3:N:495:ARG:NH1	2.31	0.45
1:K:192:LEU:O	2:M:938:LYS:NZ	2.50	0.45
3:N:608:SER:O	3:N:612:GLY:HA3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:789:LEU:HD13	3:N:934:LEU:HD22	1.98	0.45
2:C:745:ILE:HD11	2:C:803:THR:OG1	2.16	0.45
3:D:11:ALA:HA	3:D:1451:ALA:O	2.15	0.45
3:D:1468:LEU:HD22	3:D:1470:ARG:CG	2.47	0.45
3:D:465:LEU:HD21	3:D:509:PRO:HB2	1.98	0.45
3:N:1114:THR:O	3:N:1114:THR:HG23	2.16	0.45
1:K:95:GLN:O	1:K:145:ASP:HA	2.17	0.45
2:C:635:THR:C	2:C:705:ILE:HD12	2.37	0.45
3:N:474:GLU:O	3:N:478:LEU:HG	2.16	0.45
5:X:13:DA:OP2	5:X:13:DA:H8	2.00	0.45
1:K:42:ARG:NH1	1:L:34:VAL:HB	2.29	0.45
3:N:54:LYS:HG3	3:N:55:ASP:H	1.82	0.45
3:D:30:GLU:O	3:D:40:GLU:HB3	2.16	0.45
2:M:706:GLU:HB3	2:M:708:TYR:CE1	2.52	0.45
3:D:918:ALA:HA	3:D:922:LEU:CD1	2.47	0.45
2:M:808:ARG:NH2	2:M:820:ARG:HH21	2.00	0.45
3:D:799:LYS:HD3	3:D:826:PRO:CG	2.47	0.45
2:C:834:GLN:HG2	2:C:837:ASP:OD1	2.17	0.45
1:K:64:GLU:CG	1:K:76:VAL:HG22	2.47	0.45
1:B:102:LYS:HG2	1:B:104:GLU:OE2	2.17	0.45
3:D:977:ALA:O	3:D:980:MET:O	2.34	0.45
2:M:355:VAL:CG1	2:M:356:ARG:N	2.80	0.45
2:M:191:PHE:CE2	2:M:238:LEU:HD21	2.52	0.45
2:C:473:ARG:HA	2:C:531:PHE:CD1	2.52	0.45
1:K:101:LEU:HD13	1:K:114:PHE:CZ	2.51	0.45
2:C:757:GLY:HA2	2:C:789:SER:OG	2.17	0.45
2:M:18:LEU:H	2:M:18:LEU:CD1	2.29	0.45
2:C:438:ILE:O	2:C:440:PRO:HD3	2.15	0.45
2:C:390:GLN:OE1	2:C:413:LEU:HD13	2.17	0.45
1:A:221:HIS:HA	1:A:224:TYR:CD2	2.51	0.45
3:D:636:GLN:H	3:D:636:GLN:HG2	1.47	0.45
2:C:1036:GLU:HA	3:D:707:THR:CG2	2.31	0.45
2:C:1084:SER:O	2:C:1088:LEU:HB2	2.17	0.45
2:C:395:LYS:O	2:C:397:GLU:N	2.49	0.45
2:C:682:TYR:O	2:C:850:ALA:CB	2.65	0.45
3:D:107:ASP:O	3:D:110:SER:N	2.50	0.45
1:A:42:ARG:HB3	1:A:42:ARG:HE	1.49	0.45
3:N:1485:GLN:N	4:O:76:GLY:O	2.50	0.45
3:N:467:GLU:H	3:N:467:GLU:HG3	1.56	0.45
3:N:481:MET:O	3:N:489:ARG:HD2	2.17	0.45
5:X:6:DT:H2"	5:X:7:DA:H8	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1311:LEU:N	3:N:1311:LEU:HD23	2.31	0.45
3:N:142:LEU:O	3:N:161:LEU:HD11	2.17	0.45
3:D:34:TYR:CG	3:D:35:ARG:N	2.85	0.45
2:C:64:LEU:CD1	2:C:100:LEU:HD11	2.44	0.45
3:N:1260:ILE:HD13	3:N:1260:ILE:N	2.32	0.45
2:C:720:GLU:HA	2:C:759:THR:O	2.16	0.45
3:N:28:LYS:HD2	3:N:41:ARG:CZ	2.47	0.45
3:D:804:LEU:HD23	3:D:804:LEU:N	2.32	0.45
2:C:831:ARG:NH2	2:C:1004:LYS:HG3	2.32	0.45
2:M:140:ILE:C	2:M:140:ILE:HD12	2.38	0.45
2:M:136:ILE:HG21	2:M:336:VAL:HG13	1.98	0.45
2:C:587:VAL:HG11	2:C:666:LEU:HD22	1.99	0.45
2:C:605:LYS:O	2:C:611:ILE:HA	2.17	0.45
1:L:124:ASN:N	1:L:125:PRO:HD3	2.30	0.45
4:E:13:VAL:HG12	4:E:15:SER:H	1.80	0.45
1:B:78:ILE:HG23	1:B:129:ILE:HG22	1.97	0.45
3:N:666:ILE:CG2	3:N:684:LYS:NZ	2.79	0.45
2:M:832:LYS:O	2:M:833:LEU:C	2.54	0.45
3:D:1071:PHE:O	3:D:1074:SER:HB3	2.16	0.45
1:B:210:ALA:O	1:B:213:GLN:HB2	2.16	0.45
3:N:935:LYS:HE2	3:N:935:LYS:HB3	1.71	0.45
1:K:117:VAL:HB	1:K:120:VAL:CG1	2.46	0.45
3:D:795:VAL:HG13	3:D:863:VAL:HG22	1.99	0.45
3:D:1256:LEU:O	3:D:1259:VAL:N	2.49	0.45
3:D:10:ILE:HD12	3:D:1434:TRP:NE1	2.31	0.45
3:D:493:ARG:HG3	3:D:494:LYS:H	1.82	0.45
3:D:8:VAL:HB	3:D:1435:LEU:HD11	1.99	0.45
5:X:26:DC:O2	5:X:26:DC:H2'	2.17	0.45
6:Y:8:G:H8	6:Y:8:G:OP2	2.00	0.45
6:Y:8:G:P	6:Y:8:G:H8	2.40	0.45
4:E:36:LYS:HE2	4:E:36:LYS:HA	1.99	0.45
3:N:813:LEU:C	3:N:813:LEU:HD12	2.37	0.45
2:C:630:ARG:HD3	2:C:705:ILE:HG22	1.96	0.45
3:N:586:ARG:HA	3:N:586:ARG:HD3	1.79	0.45
5:X:17:DA:H1'	5:X:18:DC:H5'	1.99	0.45
5:X:2:DT:H2''	5:X:3:DC:C6	2.53	0.45
1:K:38:ASN:HD21	2:M:978:ARG:C	2.20	0.45
3:N:1279:GLY:O	3:N:1318:TYR:HA	2.16	0.45
3:D:41:ARG:O	3:D:43:GLY:N	2.49	0.45
3:D:796:ARG:HG3	3:D:861:GLN:O	2.16	0.45
2:M:310:LEU:HG	2:M:311:PHE:HD2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:792:ILE:O	3:N:792:ILE:HG12	2.17	0.45
3:N:42:ASP:O	3:N:43:GLY:O	2.34	0.45
2:C:35:PRO:C	2:C:37:GLU:N	2.70	0.45
2:M:994:ILE:HG22	2:M:995:MET:N	2.32	0.45
1:A:61:VAL:HG12	1:A:62:LEU:N	2.32	0.45
3:D:1153:VAL:HG12	3:D:1160:LEU:HD12	1.99	0.45
3:D:1496:GLU:HA	3:D:1499:ARG:HE	1.80	0.45
3:N:1151:ARG:HA	3:N:1162:GLU:HG2	1.99	0.45
3:N:401:TYR:O	3:N:443:VAL:HG23	2.17	0.45
3:N:470:LEU:HD12	3:N:503:LEU:HD21	1.98	0.45
3:N:827:ILE:HG23	3:N:837:GLY:HA2	1.99	0.45
3:D:914:LEU:O	3:D:914:LEU:HD23	2.16	0.45
1:L:30:ARG:HH11	1:L:30:ARG:HG2	1.82	0.45
2:C:1035:MET:CB	2:C:1036:GLU:OE1	2.65	0.44
2:C:395:LYS:HE3	2:C:407:LYS:CD	2.40	0.44
2:M:685:GLU:OE1	3:N:739:ASP:HB3	2.18	0.44
3:N:1468:LEU:C	3:N:1468:LEU:HD23	2.37	0.44
3:N:1108:ARG:O	3:N:1109:GLU:HB3	2.17	0.44
2:M:1098:ASP:CG	3:N:17:LYS:HD3	2.37	0.44
3:N:14:SER:O	3:N:15:PRO:C	2.54	0.44
1:K:54:THR:HG22	1:K:158:ILE:HG13	2.00	0.44
3:D:531:ASP:O	3:D:533:GLY:N	2.50	0.44
7:Z:5:DC:C2'	7:Z:6:DT:OP2	2.53	0.44
3:D:1109:GLU:OE2	3:D:1202:GLN:HB2	2.17	0.44
3:D:1366:LYS:O	3:D:1370:ILE:HG12	2.17	0.44
2:M:129:ILE:CG2	2:M:130:ASN:N	2.68	0.44
3:N:524:LEU:HD12	3:N:524:LEU:N	2.31	0.44
3:N:76:CYS:O	3:N:78:VAL:N	2.51	0.44
2:C:680:ASP:N	3:D:943:THR:HG22	2.32	0.44
2:M:873:PRO:O	2:M:877:PRO:CD	2.66	0.44
2:M:553:ASP:OD2	2:M:883:GLY:HA3	2.17	0.44
2:C:79:PRO:CG	2:C:82:GLU:HG3	2.46	0.44
2:C:20:GLU:CG	2:C:21:ILE:HD12	2.39	0.44
3:D:1046:GLN:HG2	3:D:1052:THR:CG2	2.44	0.44
3:D:952:ASP:HA	3:D:1062:ARG:HH21	1.82	0.44
2:C:733:ALA:HB2	3:D:679:ARG:CZ	2.47	0.44
1:L:59:GLU:CG	1:L:137:ARG:HH22	2.30	0.44
4:O:43:GLU:HG3	4:O:44:GLU:N	2.25	0.44
2:M:893:ALA:HB1	2:M:897:LEU:CD1	2.45	0.44
1:A:174:VAL:HG22	1:A:201:THR:HG22	1.99	0.44
2:M:21:ILE:CD1	2:M:21:ILE:H	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:957:LYS:CD	2:C:961:GLU:CB	2.95	0.44
1:K:48:ILE:HD13	1:K:210:ALA:HB1	1.99	0.44
1:B:153:ALA:HA	1:B:156:HIS:NE2	2.32	0.44
2:C:907:ASP:O	2:C:907:ASP:CG	2.55	0.44
4:O:94:PRO:O	4:O:96:GLU:HG3	2.17	0.44
1:L:108:GLU:HB3	1:L:128:HIS:HE1	1.82	0.44
1:B:173:PRO:HB2	1:B:205:VAL:HG22	1.99	0.44
2:C:816:LYS:HB2	2:C:819:VAL:HG21	1.99	0.44
1:B:7:LYS:O	1:B:7:LYS:HD3	2.16	0.44
2:C:134:ARG:HH11	2:C:387:SER:HA	1.80	0.44
2:C:46:ALA:C	2:C:48:PHE:N	2.70	0.44
3:D:1042:ARG:HE	3:D:1073:SER:CB	2.30	0.44
2:C:409:ARG:CB	2:C:454:SER:OG	2.43	0.44
2:C:439:CYS:SG	2:C:540:PHE:HA	2.56	0.44
3:D:14:SER:O	3:D:15:PRO:C	2.55	0.44
3:D:47:GLU:CD	3:D:53:ILE:HB	2.37	0.44
3:D:739:ASP:OD1	6:H:15:C:C5'	2.65	0.44
2:M:1040:LEU:HD12	2:M:1040:LEU:HA	1.84	0.44
2:M:1049:LEU:O	2:M:1053:LEU:HG	2.17	0.44
2:M:252:LYS:HB3	2:M:298:PHE:CZ	2.53	0.44
2:C:1054:THR:HG21	2:C:1079:PRO:HB3	2.00	0.44
3:D:654:LYS:CB	3:D:655:PRO:HD3	2.35	0.44
3:D:642:CYS:SG	3:D:716:PHE:CB	3.03	0.44
4:E:64:ALA:C	4:E:68:LEU:HD22	2.37	0.44
2:M:586:ARG:NH1	2:M:590:ASP:OD2	2.49	0.44
3:N:134:VAL:HG22	3:N:460:ALA:HB1	1.99	0.44
3:N:1293:PHE:HB3	3:N:1295:GLU:CG	2.44	0.44
3:N:84:ILE:O	3:N:87:ARG:N	2.48	0.44
2:C:170:PRO:CD	2:C:263:ASP:HB3	2.47	0.44
2:C:874:LEU:O	2:C:877:PRO:HD2	2.16	0.44
2:C:971:LYS:HG2	2:C:988:VAL:CB	2.48	0.44
2:M:5:ARG:CA	2:M:902:ILE:HB	2.48	0.44
1:L:179:PHE:H	1:L:179:PHE:HD2	1.64	0.44
3:N:885:ILE:O	3:N:888:GLU:HB2	2.16	0.44
2:M:44:ILE:HG21	2:M:71:TYR:CD1	2.52	0.44
3:N:900:ILE:CD1	3:N:902:LEU:HD22	2.47	0.44
3:N:899:LEU:HD22	3:N:917:GLN:CB	2.47	0.44
2:C:183:SER:HA	2:C:190:LYS:HB3	2.00	0.44
1:B:24:VAL:HG22	1:B:196:THR:CG2	2.46	0.44
2:M:352:ALA:C	2:M:355:VAL:HG12	2.37	0.44
1:A:76:VAL:O	1:A:79:ILE:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:658:LEU:O	3:D:661:MET:HB2	2.18	0.44
3:D:1078:ARG:HD3	3:D:1078:ARG:HA	1.81	0.44
3:D:680:GLN:HA	3:D:683:ILE:CD1	2.47	0.44
3:N:587:ARG:O	3:N:588:GLY:O	2.34	0.44
2:M:212:GLY:HA3	2:M:218:VAL:HG21	1.99	0.44
2:M:838:LYS:HG3	2:M:997:LEU:HB2	1.99	0.44
2:C:334:ARG:HB2	2:C:339:LEU:CD2	2.47	0.44
2:C:326:ASP:CB	2:C:431:HIS:ND1	2.73	0.44
2:C:541:SER:OG	2:C:543:ASN:HB3	2.16	0.44
3:D:1461:GLY:O	3:D:1465:ASN:HB2	2.16	0.44
3:D:84:ILE:HA	3:D:87:ARG:HG2	1.99	0.44
5:G:14:DG:C2'	5:G:15:DC:OP2	2.65	0.44
7:I:10:DG:C2	7:I:11:DG:C4	3.06	0.44
7:I:11:DG:C4	7:I:12:DT:C4	3.05	0.44
7:I:5:DC:C6	7:I:5:DC:O5'	2.69	0.44
2:M:685:GLU:O	2:M:686:ASP:OD2	2.35	0.44
3:N:1484:THR:CG2	4:O:76:GLY:O	2.65	0.44
2:M:1084:SER:O	2:M:1088:LEU:HB2	2.17	0.44
2:M:1095:LEU:HD21	3:N:603:LEU:HD12	1.98	0.44
3:D:696:HIS:HD2	4:E:59:ASN:CB	2.26	0.44
4:E:27:ALA:HB1	4:E:60:ALA:CB	2.46	0.44
3:N:833:GLU:OE1	3:N:833:GLU:HA	2.17	0.44
5:X:13:DA:C8	5:X:13:DA:O5'	2.70	0.44
5:X:2:DT:C2'	5:X:3:DC:C5	3.00	0.44
5:X:8:DC:H2''	5:X:9:DC:C5	2.52	0.44
2:M:676:ILE:O	3:N:948:THR:HB	2.18	0.44
3:D:930:LEU:O	3:D:933:ALA:HB3	2.18	0.44
3:D:660:LYS:O	3:D:663:GLU:HB2	2.18	0.44
2:C:101:ILE:HG23	2:C:107:LEU:CD2	2.48	0.44
6:H:6:C:OP2	6:H:6:C:H5	2.00	0.44
2:M:302:VAL:C	2:M:305:PRO:HD2	2.38	0.44
2:C:1081:VAL:HB	2:C:1086:ARG:NH2	2.33	0.44
3:D:941:PHE:O	3:D:945:SER:HB3	2.17	0.44
1:L:58:ILE:HD13	1:L:58:ILE:HA	1.91	0.44
3:D:1146:GLY:HA3	3:D:1207:TYR:CB	2.45	0.44
2:C:355:VAL:CG1	2:C:356:ARG:N	2.80	0.44
3:D:128:TYR:HB3	3:D:129:PHE:HD1	1.83	0.44
3:D:1395:LEU:O	3:D:1398:TRP:HB2	2.18	0.44
3:N:400:VAL:CG2	3:N:443:VAL:HG21	2.47	0.44
3:D:895:VAL:HA	3:D:898:GLU:CD	2.38	0.44
3:N:1164:ARG:HG2	3:N:1165:TYR:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:661:SER:HA	2:M:665:PHE:O	2.18	0.44
2:C:45:GLN:HA	2:C:48:PHE:HD2	1.82	0.44
2:C:468:ARG:HB2	2:C:485:TYR:HD2	1.82	0.44
3:D:1255:GLY:HA3	3:D:1257:PRO:HD2	1.98	0.44
3:D:503:LEU:O	3:D:504:ASP:C	2.54	0.44
3:N:703:ASN:HB2	3:N:713:ILE:HG12	1.99	0.44
3:N:1367:HIS:C	3:N:1370:ILE:HG12	2.38	0.44
3:N:104:PHE:HD2	3:N:1448:THR:CG2	2.28	0.44
1:A:175:ARG:HE	1:A:176:ARG:HB3	1.83	0.44
3:N:1281:VAL:HG11	3:N:1313:VAL:CG1	2.36	0.44
2:M:351:LEU:HD13	2:M:374:ASN:O	2.18	0.44
2:C:876:VAL:H	2:C:877:PRO:HD2	1.81	0.44
3:D:30:GLU:CB	3:D:40:GLU:HG2	2.46	0.44
2:M:275:TYR:OH	2:M:489:THR:HG21	2.17	0.44
2:C:831:ARG:NH1	2:C:1004:LYS:CG	2.76	0.44
2:M:333:ILE:HD13	2:M:465:GLY:O	2.18	0.44
3:N:183:GLU:CG	3:N:184:GLU:N	2.76	0.44
1:K:123:MET:O	1:K:125:PRO:HD3	2.16	0.44
3:N:567:ILE:HG22	3:N:571:LYS:HE3	2.00	0.44
2:C:959:PRO:HA	2:C:962:GLN:HG3	1.98	0.44
3:N:551:ASN:O	3:N:555:LYS:HG3	2.18	0.44
3:N:1192:LEU:HD13	3:N:1345:GLU:CG	2.48	0.44
3:D:1124:GLN:HA	3:D:1125:PRO:HD3	1.78	0.44
3:D:1132:LEU:N	3:D:1132:LEU:HD12	2.32	0.44
3:N:868:TYR:HB2	3:N:873:LEU:HD12	1.97	0.44
2:C:48:PHE:O	2:C:52:PHE:CA	2.64	0.44
2:C:405:ARG:NH2	2:C:409:ARG:CZ	2.80	0.44
3:D:1434:TRP:HZ3	3:D:1455:LYS:HB3	1.73	0.44
3:D:631:ILE:O	3:D:632:VAL:HG23	2.17	0.44
7:I:11:DG:H2"	7:I:12:DT:H6	1.82	0.44
3:N:1209:LEU:CD2	4:O:16:LYS:HE3	2.47	0.44
5:X:22:DA:H2	6:Y:12:U:O2	2.00	0.44
2:M:393:GLN:NE2	6:Y:10:G:H4'	2.31	0.44
3:D:698:LYS:HE3	3:D:698:LYS:HB3	1.66	0.44
4:E:54:LEU:O	4:E:63:TRP:HZ2	2.01	0.44
3:N:111:LYS:HE3	3:N:1449:GLU:N	2.32	0.44
3:N:115:LEU:HB2	3:N:498:VAL:HG11	2.00	0.44
7:Z:1:DG:OP1	7:Z:1:DG:C3'	2.65	0.44
3:N:160:GLU:O	3:N:161:LEU:C	2.56	0.44
3:D:28:LYS:HB3	3:D:41:ARG:NH1	2.32	0.44
3:D:853:VAL:HG11	3:D:860:LEU:HD21	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:768:THR:HB	2:M:771:GLU:CB	2.32	0.44
1:L:170:VAL:HG11	3:N:848:GLU:OE2	2.18	0.44
2:M:5:ARG:HA	2:M:902:ILE:HB	2.00	0.44
2:C:101:ILE:HG22	2:C:102:HIS:N	2.32	0.44
3:N:792:ILE:HG12	3:N:878:GLY:HA2	1.98	0.44
3:N:1236:LEU:CD1	3:N:1256:LEU:HB2	2.38	0.44
2:M:79:PRO:HG2	2:M:82:GLU:CB	2.38	0.44
1:A:133:GLU:HG2	1:A:134:GLU:N	2.32	0.44
2:M:141:HIS:O	2:M:331:ARG:CB	2.66	0.44
1:A:20:TYR:HE2	1:A:198:ARG:HB2	1.82	0.44
1:L:50:GLY:HA3	1:L:171:PHE:O	2.17	0.44
1:L:90:LEU:HG	1:L:91:ASN:HD22	1.82	0.44
1:L:101:LEU:HG	1:L:102:LYS:N	2.33	0.44
2:M:946:ARG:NH1	2:M:984:GLU:HB2	2.33	0.44
3:D:473:LEU:HA	3:D:476:GLU:HB2	2.00	0.44
2:C:897:LEU:CD2	2:C:920:GLN:HE22	2.30	0.44
1:B:179:PHE:HB3	1:B:197:LEU:HD12	1.99	0.44
2:M:18:LEU:N	2:M:18:LEU:HD12	2.31	0.44
1:B:62:LEU:HD12	1:B:63:HIS:H	1.82	0.44
2:C:1074:GLU:CG	2:C:1075:ASP:H	2.31	0.44
2:M:663:ASN:C	2:M:665:PHE:H	2.21	0.44
3:N:531:ASP:C	3:N:533:GLY:H	2.20	0.44
2:C:1032:PHE:O	2:C:1036:GLU:CB	2.61	0.44
3:D:26:VAL:HG11	3:D:44:LEU:CD2	2.36	0.44
3:D:631:ILE:HD13	3:D:743:ASP:HB2	1.93	0.44
3:D:85:VAL:HG23	3:D:86:ARG:N	2.32	0.44
5:G:9:DC:H2'	5:G:10:DA:C8	2.53	0.44
2:M:875:GLY:HA2	3:N:1029:ARG:HH22	1.75	0.44
2:M:468:ARG:HB2	2:M:485:TYR:HB3	1.99	0.44
1:A:9:PRO:HD2	1:B:224:TYR:CE1	2.53	0.44
3:N:1102:THR:O	3:N:1222:GLY:HA3	2.18	0.44
2:C:1008:ARG:NH2	2:C:1012:PRO:O	2.51	0.44
7:Z:3:DA:H2'	7:Z:3:DA:O5'	2.18	0.44
2:C:1046:ALA:HB1	3:D:1472:ILE:CG1	2.48	0.44
3:D:1481:VAL:O	3:D:1483:PHE:N	2.50	0.44
2:M:752:GLY:N	2:M:792:VAL:HB	2.31	0.44
2:M:676:ILE:HG22	2:M:988:VAL:HG22	2.00	0.44
3:D:565:ILE:CD1	3:D:565:ILE:H	1.97	0.44
2:M:762:LYS:HD2	2:M:786:LYS:CG	2.48	0.44
2:M:31:GLN:HE21	2:M:38:LYS:HB2	1.82	0.44
2:M:186:VAL:HG23	2:M:187:ASN:N	2.22	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:943:VAL:CG2	2:C:986:PRO:HD3	2.48	0.44
3:D:851:LEU:N	3:D:851:LEU:HD23	2.31	0.44
1:L:62:LEU:H	1:L:62:LEU:HD12	1.83	0.44
3:N:101:HIS:O	3:N:105:VAL:HG23	2.18	0.44
2:M:114:PHE:CG	2:M:114:PHE:O	2.70	0.44
4:O:51:LEU:HG	4:O:53:GLY:H	1.83	0.44
3:D:896:ALA:O	3:D:900:ILE:HG23	2.17	0.44
2:C:1035:MET:HB2	2:C:1036:GLU:OE1	2.17	0.44
3:D:506:GLY:O	3:D:508:ARG:N	2.50	0.44
7:I:1:DG:H3'	7:I:1:DG:OP1	2.17	0.44
2:M:395:LYS:O	2:M:633:GLN:OE1	2.35	0.44
3:N:925:GLU:N	4:O:7:ASP:OD2	2.51	0.44
3:N:1239:ARG:CZ	3:N:1239:ARG:CB	2.96	0.44
3:N:1109:GLU:OE2	3:N:1202:GLN:HB2	2.18	0.44
3:N:1128:VAL:O	3:N:1129:THR:C	2.56	0.44
3:D:531:ASP:C	3:D:533:GLY:H	2.21	0.44
2:C:860:HIS:CE1	2:C:975:TYR:HB2	2.53	0.44
3:D:785:ILE:HG23	3:D:938:GLY:CA	2.47	0.44
2:C:144:PRO:O	2:C:267:TYR:HE1	2.01	0.44
2:C:971:LYS:HG2	2:C:988:VAL:HG12	1.99	0.44
3:D:776:GLU:OE1	3:D:912:LYS:HE2	2.18	0.44
2:M:983:ILE:HG22	3:N:946:GLY:CA	2.48	0.44
3:D:918:ALA:HA	3:D:922:LEU:HD12	2.00	0.44
2:C:64:LEU:HD13	2:C:359:MET:HG3	1.98	0.44
3:D:1351:GLU:OE1	3:D:1351:GLU:HA	2.18	0.44
2:M:342:ASP:O	2:M:345:ARG:HG2	2.17	0.44
3:D:1399:ASP:O	3:D:1403:LEU:HB2	2.18	0.44
4:O:37:ASN:HA	4:O:93:TYR:CD2	2.53	0.44
1:L:104:GLU:HA	1:L:136:GLY:O	2.18	0.44
5:G:3:DC:C6	5:G:3:DC:OP2	2.71	0.44
2:M:643:VAL:CG1	2:M:644:VAL:N	2.80	0.44
2:C:110:GLU:HG3	2:C:369:PRO:CG	2.45	0.44
3:N:204:LEU:O	3:N:393:ILE:HG23	2.18	0.44
3:N:66:GLN:O	3:N:68:PHE:N	2.51	0.44
1:A:74:ASP:O	1:A:75:VAL:C	2.53	0.44
3:N:1341:PRO:O	3:N:1343:ALA:N	2.51	0.44
2:C:497:ALA:HA	2:C:515:ALA:HA	1.99	0.44
1:K:217:ILE:HG22	1:K:221:HIS:HE2	1.83	0.44
3:N:868:TYR:HB2	3:N:873:LEU:CD1	2.47	0.44
3:D:895:VAL:HG12	3:D:895:VAL:O	2.16	0.44
3:N:185:VAL:HG13	3:N:189:GLN:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:3:GLU:OE1	4:E:3:GLU:HA	2.18	0.44
1:K:62:LEU:HD12	1:K:62:LEU:N	2.33	0.44
2:C:15:LEU:HA	2:C:458:TYR:CE2	2.53	0.44
3:D:502:PHE:CE2	3:D:1452:ILE:HG13	2.53	0.44
5:G:19:DG:H2''	5:G:20:DC:C5'	2.48	0.44
3:N:639:LEU:N	3:N:729:HIS:NE2	2.66	0.44
3:N:1128:VAL:O	3:N:1129:THR:HG22	2.18	0.44
1:A:176:ARG:HH11	2:C:865:THR:CB	2.25	0.44
3:N:87:ARG:HA	3:N:521:PRO:HB3	1.98	0.44
3:N:55:ASP:HA	3:N:82:LYS:HE2	2.00	0.44
3:N:127:LEU:HD12	3:N:128:TYR:N	2.33	0.44
3:D:1412:LYS:HB2	2:M:376:ARG:CZ	2.48	0.44
3:D:554:LEU:HG	3:D:558:LEU:CG	2.47	0.44
3:D:644:LEU:HD12	3:D:645:PRO:CD	2.48	0.44
1:A:20:TYR:CE2	1:A:198:ARG:HB2	2.52	0.44
2:C:918:LEU:HD23	2:C:968:LEU:CA	2.39	0.44
1:K:64:GLU:O	1:K:76:VAL:HG23	2.18	0.44
2:C:71:TYR:HA	2:C:96:ALA:CB	2.47	0.44
1:B:101:LEU:HD13	1:B:114:PHE:CD1	2.52	0.44
2:M:817:PRO:C	2:M:819:VAL:H	2.21	0.44
2:C:612:VAL:HG13	2:C:621:VAL:O	2.18	0.44
3:D:123:LEU:O	3:D:124:GLU:C	2.54	0.44
2:M:16:PRO:O	2:M:18:LEU:N	2.50	0.44
3:N:9:ARG:NH1	3:N:11:ALA:HB2	2.32	0.44
3:N:400:VAL:O	3:N:400:VAL:HG13	2.17	0.44
3:N:794:GLN:HG2	3:N:1017:PHE:CE2	2.53	0.44
1:K:222:LEU:HD23	1:L:219:ARG:CA	2.48	0.44
2:M:721:ARG:HG3	2:M:721:ARG:HH11	1.82	0.44
2:C:22:GLN:NE2	2:C:136:ILE:O	2.51	0.44
2:C:16:PRO:O	2:C:18:LEU:N	2.51	0.44
2:C:328:LEU:C	2:C:330:ASN:N	2.70	0.44
2:C:402:SER:HB2	2:C:566:THR:O	2.17	0.44
3:D:1264:GLU:CD	3:D:1425:THR:HB	2.38	0.44
3:D:14:SER:O	3:D:17:LYS:N	2.50	0.44
3:D:15:PRO:O	3:D:18:ILE:HB	2.18	0.44
2:M:493:ARG:HB2	2:M:494:TYR:CD1	2.53	0.44
3:N:1195:GLN:O	3:N:1196:THR:C	2.57	0.44
2:M:15:LEU:HA	2:M:458:TYR:CE2	2.53	0.44
1:L:42:ARG:HG2	1:L:42:ARG:HH11	1.83	0.44
2:M:431:HIS:CB	2:M:434:HIS:CE1	2.81	0.44
3:N:1313:VAL:HG21	3:N:1319:VAL:CG1	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:876:VAL:O	2:C:879:ARG:O	2.35	0.44
3:N:396:VAL:HB	3:N:447:VAL:HG12	1.99	0.44
3:D:714:GLN:HE21	3:D:765:SER:HB2	1.80	0.44
1:L:83:LYS:HE2	1:L:168:ASP:OD2	2.18	0.44
2:M:922:PHE:CB	2:M:964:LYS:NZ	2.79	0.44
6:H:6:C:N4	6:H:7:G:O6	2.51	0.44
2:M:478:VAL:HA	2:M:506:ASN:O	2.18	0.44
1:A:110:LYS:C	1:A:112:ARG:N	2.71	0.44
2:C:195:LEU:HD21	2:C:238:LEU:HG	2.00	0.44
3:D:1197:ARG:CZ	3:D:1198:TYR:CD1	3.01	0.44
1:K:71:VAL:O	2:M:608:GLY:N	2.51	0.44
2:C:752:GLY:H	2:C:792:VAL:HB	1.83	0.44
2:M:707:ARG:HD2	2:M:826:TYR:OH	2.18	0.44
1:B:76:VAL:HA	1:B:79:ILE:CD1	2.48	0.44
3:N:506:GLY:O	3:N:507:ASN:C	2.57	0.44
1:K:78:ILE:O	1:K:81:ASN:N	2.51	0.44
2:C:242:LEU:HD23	2:C:242:LEU:HA	1.89	0.44
2:C:435:TYR:C	2:C:437:ARG:H	2.22	0.43
2:C:468:ARG:HA	2:C:486:MET:O	2.17	0.43
3:D:608:SER:HB3	3:D:1443:THR:HG23	1.99	0.43
3:D:8:VAL:HG23	3:D:1459:LEU:CD1	2.48	0.43
3:N:1483:PHE:O	4:O:77:GLU:HA	2.18	0.43
6:Y:4:G:H2'	6:Y:5:C:C6	2.49	0.43
2:M:286:SER:HB3	2:M:299:LYS:CE	2.47	0.43
2:M:456:ALA:HB3	2:M:459:ALA:HB2	1.99	0.43
3:D:1364:HIS:CE1	3:D:1366:LYS:HG3	2.53	0.43
2:C:130:ASN:OD1	2:C:383:ARG:NH2	2.51	0.43
3:N:1273:VAL:HG23	3:N:1274:ILE:N	2.33	0.43
3:N:1281:VAL:HG23	3:N:1319:VAL:CG2	2.47	0.43
3:N:52:PRO:HG2	3:N:82:LYS:O	2.18	0.43
2:C:260:LEU:HD21	2:C:293:PHE:CE2	2.52	0.43
3:D:1087:ARG:HE	3:D:1236:LEU:CD1	2.29	0.43
1:L:28:LEU:HD11	1:L:195:LEU:H	1.83	0.43
2:M:157:ARG:HG3	2:M:158:TYR:H	1.83	0.43
3:N:795:VAL:HG23	3:N:879:ARG:NH1	2.33	0.43
1:B:100:LEU:HB2	1:B:115:LEU:HD21	2.00	0.43
2:C:410:ILE:N	2:C:453:THR:O	2.42	0.43
3:D:1242:HIS:O	3:D:1251:ASP:N	2.42	0.43
1:B:29:GLU:HB3	1:B:30:ARG:H	1.72	0.43
3:N:1354:LYS:HA	3:N:1357:ARG:HD2	1.99	0.43
2:M:191:PHE:CD2	2:M:241:LEU:HD13	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:473:ARG:HA	2:C:531:PHE:CE1	2.53	0.43
3:D:850:LEU:HD12	3:D:850:LEU:N	2.31	0.43
2:C:643:VAL:HG13	2:C:647:GLN:CD	2.39	0.43
1:K:218:LEU:O	1:K:222:LEU:HD13	2.18	0.43
3:D:1119:SER:O	3:D:1121:PRO:HD3	2.17	0.43
3:D:1041:LEU:CD1	3:D:1045:MET:HB2	2.47	0.43
3:D:1268:PRO:HB2	3:D:1329:ALA:HB3	1.99	0.43
3:D:1225:ALA:CA	3:D:1367:HIS:ND1	2.77	0.43
3:D:521:PRO:CD	3:D:524:LEU:HD22	2.46	0.43
3:D:620:GLY:O	3:D:621:LYS:HD3	2.18	0.43
2:M:392:SER:O	2:M:393:GLN:HG3	2.19	0.43
3:N:736:PHE:HD1	3:N:736:PHE:H	1.62	0.43
3:N:761:ILE:HD12	4:O:20:THR:HA	2.01	0.43
2:M:289:THR:O	2:M:290:LEU:C	2.57	0.43
1:A:9:PRO:HB3	1:A:25:LEU:CG	2.48	0.43
3:N:1311:LEU:H	3:N:1311:LEU:HD23	1.82	0.43
3:D:30:GLU:HA	3:D:30:GLU:OE1	2.18	0.43
3:D:796:ARG:HH21	3:D:862:ASP:CG	2.20	0.43
3:D:1209:LEU:HD11	4:E:16:LYS:HD2	2.00	0.43
2:M:762:LYS:HD2	2:M:786:LYS:HG3	1.99	0.43
2:M:785:VAL:HG13	2:M:786:LYS:N	2.33	0.43
4:E:40:LEU:HD21	4:E:67:GLU:CA	2.36	0.43
2:C:1040:LEU:HA	2:C:1040:LEU:HD12	1.71	0.43
2:C:1040:LEU:CG	2:C:1045:ALA:HB3	2.44	0.43
3:D:758:GLU:CB	3:D:762:GLN:NE2	2.81	0.43
3:D:847:ASP:O	3:D:851:LEU:CG	2.63	0.43
1:A:90:LEU:HD13	1:A:119:ASP:O	2.19	0.43
3:D:100:ALA:CB	3:D:128:TYR:OH	2.65	0.43
1:A:18:ARG:HB2	1:A:203:GLY:HA2	2.00	0.43
2:C:953:VAL:O	2:C:955:PRO:HD3	2.18	0.43
3:D:832:ARG:C	3:D:832:ARG:HD2	2.36	0.43
2:C:706:GLU:HG2	2:C:708:TYR:CZ	2.53	0.43
2:C:553:ASP:N	2:C:553:ASP:OD2	2.51	0.43
3:N:470:LEU:H	3:N:470:LEU:HD23	1.82	0.43
2:C:721:ARG:HH11	2:C:721:ARG:HG3	1.83	0.43
2:C:334:ARG:HG2	2:C:338:GLU:OE1	2.19	0.43
3:D:1100:ASP:CA	3:D:1463:LYS:HZ1	2.30	0.43
3:D:85:VAL:O	3:D:88:TYR:HB2	2.18	0.43
4:O:9:LEU:HD23	4:O:12:MET:SD	2.57	0.43
2:M:486:MET:HG3	2:M:487:THR:N	2.32	0.43
1:B:43:ILE:HG23	1:B:47:SER:CB	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:812:ALA:O	3:N:816:HIS:HB2	2.18	0.43
3:N:136:ASP:HB3	3:N:453:ASP:HB2	2.00	0.43
7:Z:4:DG:C2	7:Z:5:DC:C2	3.07	0.43
3:D:1189:ARG:HD2	3:D:1190:SER:H	1.84	0.43
2:M:76:PRO:HG3	2:M:120:LEU:HD11	2.01	0.43
3:D:731:LEU:HA	3:D:731:LEU:HD23	1.70	0.43
3:N:145:VAL:HG22	3:N:146:PRO:HD2	2.00	0.43
3:D:787:LEU:HD21	3:D:947:ILE:HD11	2.00	0.43
4:O:54:LEU:HD22	4:O:63:TRP:HE1	1.78	0.43
3:D:1137:ARG:O	3:D:1141:GLU:HG3	2.18	0.43
2:M:677:MET:HE1	2:M:678:PRO:O	2.18	0.43
2:M:987:ILE:HG12	3:N:948:THR:HG23	2.00	0.43
1:L:80:LEU:C	3:N:844:ALA:HB2	2.38	0.43
1:L:175:ARG:HB3	3:N:847:ASP:OD2	2.19	0.43
2:M:157:ARG:HG3	2:M:158:TYR:N	2.33	0.43
1:K:186:LEU:O	1:K:188:GLN:N	2.50	0.43
2:M:101:ILE:CD1	2:M:107:LEU:HD22	2.48	0.43
2:M:304:LEU:O	2:M:308:ARG:HB2	2.19	0.43
2:C:90:TYR:CD1	2:C:120:LEU:HB2	2.54	0.43
1:A:109:VAL:HG23	1:A:132:LEU:HD13	2.00	0.43
3:D:128:TYR:CZ	3:D:458:ALA:HB2	2.54	0.43
2:C:479:VAL:CG2	2:C:506:ASN:HA	2.44	0.43
2:C:708:TYR:HE2	2:C:793:PRO:HG2	1.83	0.43
2:C:203:ASP:HB2	2:C:205:GLU:OE2	2.18	0.43
3:N:960:LYS:O	3:N:964:LEU:HB2	2.19	0.43
1:L:159:LYS:H	1:L:159:LYS:HE3	1.83	0.43
1:A:217:ILE:HG22	1:A:221:HIS:NE2	2.33	0.43
3:N:966:GLU:O	3:N:969:ARG:HG2	2.18	0.43
1:B:152:PRO:HB2	1:B:155:LYS:HB2	2.00	0.43
1:K:45:LEU:N	1:K:45:LEU:HD12	2.33	0.43
2:C:338:GLU:C	2:C:341:THR:HG22	2.38	0.43
2:C:1016:ILE:CG2	3:D:524:LEU:O	2.66	0.43
2:C:275:TYR:OH	2:C:329:GLY:O	2.36	0.43
2:C:686:ASP:HB3	2:C:846:LYS:O	2.18	0.43
3:D:10:ILE:CD1	3:D:1434:TRP:HE1	2.31	0.43
3:D:1258:ARG:NH1	3:D:1329:ALA:CB	2.71	0.43
3:D:23:TYR:CZ	3:D:89:ARG:HG2	2.53	0.43
3:D:732:VAL:CG2	3:D:736:PHE:HE1	2.30	0.43
2:M:1008:ARG:O	3:N:624:ASP:O	2.36	0.43
2:M:1045:ALA:HA	3:N:758:GLU:CD	2.38	0.43
3:N:771:SER:CB	3:N:778:LEU:HD13	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:19:DG:C2'	5:X:20:DC:C5'	2.96	0.43
2:M:265:ARG:CD	2:M:267:TYR:HB3	2.49	0.43
1:A:28:LEU:CD2	1:A:32:PHE:CD1	2.59	0.43
3:N:1205:TYR:CE2	3:N:1215:VAL:HG21	2.53	0.43
3:D:637:LEU:HD11	3:D:642:CYS:C	2.38	0.43
3:D:698:LYS:NZ	3:D:756:GLN:HG2	2.33	0.43
1:L:65:PHE:CE1	3:N:813:LEU:HD13	2.53	0.43
3:N:104:PHE:HA	3:N:1448:THR:HG23	2.01	0.43
3:N:502:PHE:CD1	3:N:509:PRO:HB3	2.53	0.43
7:Z:4:DG:C5	7:Z:5:DC:C4	3.06	0.43
3:D:1189:ARG:CZ	3:D:1204:CYS:SG	3.05	0.43
2:M:129:ILE:CD1	2:M:129:ILE:H	2.30	0.43
2:C:300:ASP:C	2:C:302:VAL:N	2.71	0.43
3:D:543:LEU:HD11	3:D:600:LEU:HB2	2.00	0.43
2:M:884:GLN:O	2:M:992:MET:CE	2.65	0.43
2:M:44:ILE:HG21	2:M:71:TYR:CE1	2.53	0.43
2:C:836:GLY:HA2	3:D:725:SER:CB	2.45	0.43
2:C:35:PRO:C	2:C:37:GLU:H	2.22	0.43
4:O:36:LYS:HG2	4:O:95:VAL:HG21	1.99	0.43
2:M:604:ALA:O	2:M:645:VAL:HG12	2.18	0.43
3:N:563:PRO:HG2	3:N:566:ILE:HD12	2.01	0.43
1:L:56:VAL:CG1	1:L:57:TYR:N	2.81	0.43
1:B:11:PHE:HB2	1:B:25:LEU:HD12	2.01	0.43
3:D:812:ALA:O	3:D:816:HIS:HB2	2.19	0.43
1:L:36:LEU:C	1:L:39:PRO:HD2	2.38	0.43
2:M:430:VAL:HG13	3:N:1075:HIS:ND1	2.33	0.43
2:M:498:GLN:HG3	2:M:516:ARG:HH21	1.81	0.43
1:A:117:VAL:HB	1:A:120:VAL:HG11	1.99	0.43
1:L:18:ARG:O	1:L:207:PRO:HD3	2.18	0.43
3:N:1491:THR:O	3:N:1494:ALA:HB3	2.18	0.43
2:C:1072:LYS:HE2	2:C:1072:LYS:HB3	1.81	0.43
2:C:1090:LYS:HE2	2:C:1112:PHE:HE1	1.81	0.43
2:C:460:ARG:HG3	2:C:460:ARG:NH1	2.33	0.43
3:D:8:VAL:O	3:D:1434:TRP:HH2	2.02	0.43
2:M:878:SER:OG	3:N:1029:ARG:CZ	2.67	0.43
3:N:620:GLY:O	3:N:621:LYS:HD3	2.18	0.43
2:M:252:LYS:NZ	2:M:296:GLY:HA3	2.34	0.43
2:M:1102:LEU:HB2	3:N:7:LYS:O	2.19	0.43
7:Z:1:DG:C4	7:Z:2:DT:C7	3.02	0.43
2:C:861:LEU:CG	2:C:862:PRO:HD2	2.34	0.43
2:M:431:HIS:HB3	2:M:434:HIS:CD2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:731:LEU:HD21	3:D:785:ILE:HD13	1.99	0.43
2:M:375:SER:O	2:M:379:GLU:OE1	2.37	0.43
3:D:924:MET:SD	4:E:6:ILE:HG12	2.59	0.43
2:M:581:THR:OG1	2:M:583:LEU:HD13	2.19	0.43
3:N:885:ILE:H	3:N:885:ILE:HG13	1.70	0.43
2:C:146:VAL:HG13	2:C:161:SER:O	2.18	0.43
1:K:26:GLU:CB	1:K:27:PRO:HA	2.49	0.43
6:H:7:G:C2'	6:H:8:G:C5'	2.96	0.43
2:M:31:GLN:O	2:M:31:GLN:OE1	2.37	0.43
2:M:300:ASP:C	2:M:302:VAL:N	2.70	0.43
1:A:139:ASN:HD22	1:A:140:MET:N	2.17	0.43
1:L:100:LEU:HD22	1:L:141:GLU:HB3	2.00	0.43
3:D:148:GLU:HB3	3:D:151:GLN:HB2	1.99	0.43
3:N:1009:LYS:O	3:N:1012:GLU:HB3	2.19	0.43
2:C:817:PRO:C	2:C:819:VAL:H	2.22	0.43
3:N:973:GLN:O	3:N:977:ALA:HB2	2.18	0.43
1:K:170:VAL:HG23	1:K:170:VAL:O	2.18	0.43
2:C:1106:ASP:CG	3:D:1456:LYS:HD3	2.38	0.43
2:C:344:PHE:CZ	2:C:348:LEU:HD11	2.53	0.43
2:C:1038:TRP:CH2	3:D:1096:ARG:HA	2.53	0.43
2:C:462:ASP:HB3	2:C:468:ARG:CZ	2.48	0.43
2:C:1096:ALA:HB2	3:D:101:HIS:CD2	2.53	0.43
3:D:1223:ILE:O	3:D:1226:ALA:N	2.52	0.43
3:D:1468:LEU:CD2	3:D:1470:ARG:HG3	2.48	0.43
3:N:17:LYS:HG2	3:N:21:TRP:CE2	2.53	0.43
1:K:180:GLN:HA	2:M:937:ASP:OD1	2.19	0.43
1:K:198:ARG:HD3	1:K:200:TRP:CH2	2.54	0.43
3:D:530:VAL:O	6:H:4:G:C5'	2.59	0.43
2:C:1046:ALA:HA	3:D:1472:ILE:HG13	2.01	0.43
2:C:143:SER:HB2	2:C:276:LYS:CE	2.44	0.43
2:C:289:THR:O	2:C:290:LEU:C	2.56	0.43
3:N:163:TYR:HE1	3:N:165:LYS:HA	1.81	0.43
2:M:56:GLU:OE2	2:M:59:LYS:HD2	2.18	0.43
2:M:677:MET:HB3	2:M:987:ILE:CG2	2.47	0.43
3:D:925:GLU:O	3:D:928:ALA:HB3	2.18	0.43
2:M:537:LYS:HG3	2:M:905:ILE:HG12	2.01	0.43
3:N:1256:LEU:N	3:N:1257:PRO:CD	2.82	0.43
2:C:92:ALA:CB	2:C:120:LEU:HD21	2.49	0.43
2:C:943:VAL:HG22	2:C:986:PRO:HD3	2.00	0.43
3:N:118:LEU:O	3:N:120:ALA:N	2.51	0.43
1:A:206:THR:HG22	1:A:209:GLU:H	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1394:VAL:HG12	3:N:1397:LYS:H	1.83	0.43
2:C:349:ALA:O	2:C:353:ARG:HB2	2.19	0.43
1:K:195:LEU:HD12	1:K:196:THR:N	2.34	0.43
1:A:78:ILE:O	1:A:82:LEU:HG	2.17	0.43
4:E:85:LEU:HD23	4:E:85:LEU:O	2.19	0.43
1:A:213:GLN:O	1:A:217:ILE:HG13	2.18	0.43
3:D:686:GLU:HA	3:D:689:ASP:OD2	2.18	0.43
1:B:64:GLU:HG2	1:B:64:GLU:O	2.19	0.43
2:C:404:LEU:HD13	2:C:591:SER:HB2	2.00	0.43
3:D:522:PRO:N	3:D:525:ARG:NH1	2.67	0.43
3:D:8:VAL:O	3:D:1457:ASP:N	2.35	0.43
3:N:754:PHE:CG	4:O:24:ALA:HB1	2.54	0.43
6:Y:6:C:N4	6:Y:7:G:O6	2.51	0.43
1:B:42:ARG:HH11	1:B:42:ARG:HG2	1.84	0.43
3:N:15:PRO:CA	3:N:18:ILE:HG12	2.47	0.43
3:D:749:VAL:HA	3:D:750:PRO:HD3	1.87	0.43
4:E:54:LEU:CD2	4:E:63:TRP:HE1	2.24	0.43
3:D:1336:LEU:HB2	3:D:1344:VAL:HG21	2.01	0.43
2:M:115:LEU:HD22	2:M:373:VAL:CG1	2.49	0.43
3:D:1000:THR:O	3:D:1003:VAL:HG12	2.19	0.43
1:L:150:TYR:HH	3:N:843:PHE:HE2	1.65	0.43
2:M:843:HIS:ND1	2:M:884:GLN:HB3	2.32	0.43
2:M:906:PHE:CE2	3:N:1067:VAL:HA	2.54	0.43
2:C:725:ASP:HB3	2:C:783:ARG:NH2	2.34	0.43
2:C:1040:LEU:HB3	2:C:1049:LEU:HD13	2.00	0.43
2:M:710:ILE:HB	2:M:790:LEU:HD22	2.01	0.43
3:D:671:LYS:HB3	3:D:671:LYS:HE2	1.59	0.43
1:A:86:VAL:HG13	1:A:86:VAL:O	2.19	0.43
1:L:149:GLY:O	1:L:171:PHE:HB2	2.19	0.43
3:N:1166:LEU:CD2	3:N:1166:LEU:H	2.18	0.43
1:B:124:ASN:ND2	1:B:127:LEU:HB2	2.34	0.43
2:C:878:SER:HB3	3:D:1029:ARG:HD2	2.00	0.43
1:B:73:GLU:HB3	1:B:77:GLU:HG3	2.00	0.43
1:B:198:ARG:NH2	3:D:888:GLU:OE2	2.52	0.43
1:B:173:PRO:HB3	1:B:204:SER:HB3	2.00	0.43
2:M:663:ASN:C	2:M:665:PHE:N	2.72	0.43
2:C:68:PHE:O	2:C:69:LEU:HD23	2.19	0.43
3:D:1433:SER:HB2	3:D:1457:ASP:CG	2.38	0.43
3:D:521:PRO:C	3:D:525:ARG:NH1	2.72	0.43
3:D:7:LYS:HE2	3:D:1458:GLU:OE2	2.18	0.43
5:G:7:DA:H8	5:G:7:DA:P	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:395:LYS:CG	2:M:397:GLU:HG3	2.49	0.43
2:M:686:ASP:HB3	2:M:846:LYS:O	2.19	0.43
3:N:1191:PRO:HA	3:N:1194:CYS:HB2	2.00	0.43
3:N:1200:VAL:HG13	3:N:1204:CYS:CB	2.41	0.43
3:N:1205:TYR:CE1	3:N:1366:LYS:HD3	2.54	0.43
3:D:760:ARG:NH1	4:E:62:THR:HG23	2.34	0.43
2:M:939:ARG:HG3	2:M:975:TYR:HE2	1.84	0.43
2:M:436:GLY:O	2:M:456:ALA:HB3	2.18	0.43
1:K:55:SER:N	1:K:143:ARG:HB3	2.34	0.43
3:N:1382:THR:CG2	3:N:1418:LYS:HE3	2.47	0.43
2:M:326:ASP:HB3	2:M:431:HIS:CG	2.52	0.43
3:N:520:LEU:HG	3:N:521:PRO:CD	2.48	0.43
3:N:87:ARG:HB3	3:N:523:ASP:CB	2.48	0.43
3:N:55:ASP:HB3	3:N:82:LYS:HE2	2.01	0.43
3:N:953:ASP:OD1	3:N:1019:PRO:HG2	2.19	0.43
1:A:186:LEU:O	1:A:188:GLN:N	2.52	0.43
2:M:68:PHE:O	2:M:69:LEU:HD23	2.17	0.43
1:A:135:GLY:O	1:A:137:ARG:HG3	2.19	0.43
1:A:152:PRO:CB	1:A:154:GLU:OE1	2.61	0.43
5:G:3:DC:P	5:G:3:DC:H6	2.42	0.43
2:C:358:ARG:NE	2:C:371:LYS:O	2.52	0.43
2:C:583:LEU:N	2:C:583:LEU:HD12	2.34	0.43
2:C:596:TYR:C	2:C:655:LEU:HD11	2.39	0.43
7:I:17:DA:P	7:I:17:DA:H8	2.42	0.43
1:A:48:ILE:CG2	1:A:173:PRO:HD2	2.48	0.43
2:M:723:THR:CG2	2:M:725:ASP:HB2	2.48	0.43
1:A:13:VAL:CG1	1:A:14:ARG:H	2.30	0.43
2:M:524:VAL:CG1	2:M:525:SER:N	2.80	0.43
2:M:349:ALA:O	2:M:353:ARG:HB2	2.18	0.43
1:L:73:GLU:H	1:L:73:GLU:HG2	1.52	0.43
3:N:789:LEU:CD1	3:N:934:LEU:HD22	2.49	0.43
2:C:661:SER:HA	2:C:665:PHE:O	2.19	0.43
4:O:33:HIS:CE1	4:O:89:MET:HG2	2.53	0.43
1:L:221:HIS:HA	1:L:224:TYR:CD2	2.53	0.43
3:D:1031:ASN:HB2	3:D:1034:GLN:HB3	2.01	0.43
2:C:1092:LEU:O	2:C:1095:LEU:O	2.37	0.43
2:C:398:THR:HB	2:C:399:ASN:ND2	2.33	0.43
2:C:409:ARG:HA	2:C:454:SER:CA	2.33	0.43
2:C:1098:ASP:HB2	3:D:21:TRP:HZ2	1.83	0.43
3:D:499:VAL:O	3:D:500:ARG:C	2.57	0.43
3:D:91:GLY:C	3:D:519:VAL:HG23	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:630:VAL:O	3:D:726:ILE:N	2.46	0.43
3:D:630:VAL:CG1	3:D:631:ILE:N	2.82	0.43
3:D:709:HIS:HA	3:D:1227:GLN:CB	2.48	0.43
3:D:705:ALA:HB2	6:H:14:G:H21	1.61	0.43
3:N:1107:VAL:HG23	3:N:1219:GLU:O	2.17	0.43
3:N:610:LYS:HA	3:N:615:ARG:CD	2.49	0.43
3:N:704:ARG:HG3	3:N:705:ALA:N	2.34	0.43
3:N:699:VAL:HG22	3:N:760:ARG:HB3	1.99	0.43
3:N:581:LEU:O	3:N:603:LEU:HG	2.19	0.43
3:D:1200:VAL:HG22	3:D:1373:ARG:NH1	2.31	0.43
3:D:731:LEU:HD22	3:D:780:LYS:O	2.19	0.43
3:N:1280:VAL:O	3:N:1294:VAL:HA	2.19	0.43
2:C:265:ARG:C	2:C:267:TYR:N	2.72	0.43
3:N:155:ASP:O	3:N:159:ARG:HB2	2.19	0.43
2:M:113:VAL:CG1	2:M:115:LEU:HD23	2.49	0.43
3:N:657:LEU:HD13	3:N:691:LEU:HD13	2.01	0.43
2:M:987:ILE:HA	3:N:948:THR:OG1	2.18	0.43
3:N:950:GLY:H	3:N:953:ASP:HB2	1.82	0.43
1:L:76:VAL:HA	1:L:79:ILE:HG12	2.01	0.43
2:M:903:SER:O	2:M:904:PRO:C	2.56	0.43
4:O:32:ARG:HB2	4:O:32:ARG:CZ	2.49	0.43
2:M:724:ARG:NH2	2:M:734:LEU:O	2.52	0.43
2:C:749:VAL:HG23	2:C:749:VAL:O	2.19	0.43
3:D:513:ILE:O	3:D:513:ILE:HD12	2.18	0.43
3:N:434:ARG:HH12	3:N:436:GLU:HG3	1.84	0.43
3:D:970:LYS:O	3:D:974:ILE:HG13	2.19	0.43
3:N:645:PRO:HB3	3:N:723:GLY:O	2.19	0.43
2:M:195:LEU:O	2:M:199:VAL:HG23	2.19	0.43
2:C:205:GLU:H	2:C:205:GLU:HG3	1.60	0.43
3:N:1348:LEU:N	3:N:1348:LEU:HD13	2.34	0.43
1:B:172:SER:HA	1:B:173:PRO:HD3	1.74	0.43
3:N:811:GLU:O	3:N:815:ALA:HB3	2.19	0.43
2:M:718:GLY:HA3	2:M:761:PHE:CE1	2.54	0.43
3:D:1363:LEU:H	3:D:1363:LEU:HD23	1.82	0.43
2:C:341:THR:O	2:C:345:ARG:HG2	2.19	0.43
2:C:1038:TRP:O	2:C:1042:ALA:N	2.48	0.43
3:D:615:ARG:NH1	3:D:1096:ARG:NE	2.52	0.43
3:D:1442:ASN:O	3:D:1443:THR:OG1	2.33	0.43
3:D:1442:ASN:O	3:D:1443:THR:CB	2.66	0.43
3:D:465:LEU:HD22	3:D:510:GLU:HA	1.99	0.43
2:C:444:PRO:CB	6:H:12:U:OP1	2.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:1055:LEU:HD23	2:M:1062:GLY:HA3	2.01	0.43
2:C:288:ARG:HG3	2:C:288:ARG:NH1	2.33	0.43
3:N:581:LEU:HD23	3:N:581:LEU:N	2.22	0.43
4:E:36:LYS:HB2	4:E:95:VAL:HG22	2.01	0.43
3:N:1330:ILE:HB	3:N:1347:TYR:CZ	2.53	0.43
3:D:771:SER:HA	3:D:772:PRO:HD3	1.90	0.43
3:D:1084:THR:HA	3:D:1087:ARG:CG	2.48	0.43
2:M:966:LEU:HA	2:M:966:LEU:HD12	1.84	0.43
2:M:6:PHE:CD1	2:M:6:PHE:N	2.86	0.43
2:M:762:LYS:HG3	2:M:786:LYS:CE	2.49	0.43
2:M:217:LEU:HD11	2:M:314:THR:OG1	2.19	0.43
2:M:537:LYS:CD	2:M:905:ILE:HD13	2.38	0.43
1:A:198:ARG:C	1:A:199:ILE:HD12	2.39	0.43
2:M:610:ARG:HG3	2:M:610:ARG:HH11	1.82	0.43
1:A:57:TYR:CZ	1:A:161:ARG:HD2	2.52	0.43
3:N:1344:VAL:O	3:N:1345:GLU:C	2.56	0.43
3:N:1149:LEU:HD13	3:N:1151:ARG:O	2.19	0.43
2:M:1118:LYS:O	2:M:1119:ARG:O	2.37	0.43
2:C:115:LEU:H	2:C:115:LEU:HG	1.60	0.43
2:C:48:PHE:CB	2:C:52:PHE:HD2	2.31	0.42
2:C:408:ARG:NH1	2:C:542:VAL:HG23	2.34	0.42
3:D:1437:ALA:C	3:D:1446:VAL:HG11	2.38	0.42
3:D:502:PHE:CD2	3:D:509:PRO:HD3	2.54	0.42
3:D:582:LEU:HD23	3:D:603:LEU:HD12	1.99	0.42
2:C:1031:ARG:HA	3:D:621:LYS:O	2.19	0.42
2:M:1038:TRP:HA	2:M:1041:GLU:HG3	2.00	0.42
3:N:774:SER:O	3:N:776:GLU:N	2.52	0.42
3:N:639:LEU:HG	3:N:932:ASP:OD1	2.18	0.42
4:O:25:LYS:HA	4:O:28:GLN:HE21	1.81	0.42
1:A:9:PRO:HG2	1:B:224:TYR:CG	2.54	0.42
3:N:625:TYR:HE2	3:N:655:PRO:CD	2.32	0.42
3:N:1094:LEU:HA	3:N:1094:LEU:HD12	1.87	0.42
3:N:104:PHE:HA	3:N:1448:THR:CG2	2.48	0.42
3:N:104:PHE:CG	3:N:512:MET:SD	3.12	0.42
3:D:122:GLU:HG2	3:D:126:VAL:HG23	2.01	0.42
3:N:1271:LYS:HZ3	3:N:1331:ASP:HB2	1.80	0.42
3:N:521:PRO:HA	3:N:522:PRO:HD3	1.86	0.42
3:D:1341:PRO:C	3:D:1343:ALA:H	2.22	0.42
3:D:40:GLU:OE1	3:D:40:GLU:HA	2.18	0.42
2:M:582:GLY:C	2:M:583:LEU:HD12	2.40	0.42
2:M:578:VAL:HG13	2:M:671:ASN:CB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1155:VAL:HB	3:D:1156:LEU:H	1.62	0.42
2:C:1102:LEU:HA	2:C:1107:ASN:O	2.18	0.42
3:D:119:SER:C	3:D:121:THR:N	2.72	0.42
3:D:1393:GLN:CB	3:D:1398:TRP:HZ2	2.32	0.42
1:A:81:ASN:O	1:A:84:GLU:HB3	2.19	0.42
2:C:606:VAL:CG2	2:C:645:VAL:HG22	2.49	0.42
3:D:1479:ASP:OD2	3:D:1482:ARG:NH2	2.52	0.42
3:N:972:LEU:HA	3:N:975:GLU:HB2	2.00	0.42
2:M:520:GLU:OE2	2:M:521:PRO:HD2	2.19	0.42
2:C:345:ARG:CA	2:C:348:LEU:HD22	2.45	0.42
2:C:1083:GLU:C	2:C:1085:PHE:N	2.71	0.42
2:C:328:LEU:HD13	2:C:433:THR:CA	2.49	0.42
2:C:460:ARG:HH12	2:C:462:ASP:HA	1.84	0.42
3:D:618:LEU:HD13	3:D:1439:SER:CB	2.43	0.42
2:C:422:ARG:HB3	7:I:1:DG:C6	2.54	0.42
3:N:764:LEU:HB3	3:N:767:HIS:CE1	2.54	0.42
6:Y:8:G:H8	6:Y:8:G:H3'	1.80	0.42
2:M:493:ARG:CZ	2:M:494:TYR:OH	2.68	0.42
3:N:662:GLU:C	3:N:664:LYS:O	2.58	0.42
2:M:1101:THR:O	2:M:1102:LEU:HD12	2.18	0.42
2:M:459:ALA:HB1	2:M:467:ILE:CG2	2.49	0.42
3:N:111:LYS:HZ1	3:N:1449:GLU:CG	2.32	0.42
2:C:697:ARG:HG3	2:C:697:ARG:O	2.18	0.42
3:D:1369:GLU:O	3:D:1370:ILE:C	2.57	0.42
2:C:1046:ALA:HB3	3:D:1476:THR:OG1	2.19	0.42
3:D:916:TYR:OH	3:D:1145:TYR:HE2	2.02	0.42
3:N:525:ARG:CD	3:N:525:ARG:H	2.31	0.42
3:N:90:MET:HE2	3:N:521:PRO:HD3	2.00	0.42
2:C:971:LYS:NZ	3:D:953:ASP:OD1	2.50	0.42
1:L:83:LYS:O	1:L:170:VAL:HG21	2.19	0.42
3:D:549:ASN:CB	3:D:550:ARG:HH21	2.31	0.42
2:C:796:GLU:CB	2:C:1004:LYS:NZ	2.75	0.42
2:C:79:PRO:O	2:C:83:CYS:SG	2.67	0.42
2:M:141:HIS:O	2:M:331:ARG:CA	2.66	0.42
3:N:864:VAL:CG1	3:N:865:THR:H	2.21	0.42
1:A:99:LEU:HB3	1:A:114:PHE:CD2	2.54	0.42
3:D:1396:GLU:O	3:D:1399:ASP:HB2	2.19	0.42
2:C:368:THR:HB	2:C:369:PRO:CD	2.43	0.42
3:N:66:GLN:O	3:N:69:GLU:N	2.51	0.42
1:A:66:SER:O	1:A:75:VAL:HG23	2.18	0.42
3:D:904:VAL:HA	3:D:905:PRO:HD3	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1129:THR:HG23	3:D:1130:ARG:H	1.81	0.42
1:L:206:THR:HG23	1:L:208:LEU:N	2.33	0.42
1:L:108:GLU:HB3	1:L:128:HIS:CE1	2.54	0.42
2:M:520:GLU:O	2:M:522:VAL:HG23	2.18	0.42
2:M:25:SER:OG	2:M:335:THR:HB	2.19	0.42
3:N:1082:ALA:O	3:N:1085:ALA:HB3	2.19	0.42
3:D:1103:HIS:O	3:D:1105:ILE:N	2.52	0.42
3:D:1225:ALA:O	3:D:1229:ILE:HG13	2.19	0.42
3:D:1442:ASN:O	3:D:1443:THR:CG2	2.67	0.42
3:N:736:PHE:O	3:N:738:ALA:N	2.53	0.42
3:N:1114:THR:C	3:N:1189:ARG:HH21	2.15	0.42
2:M:1090:LYS:HA	2:M:1090:LYS:HD3	1.84	0.42
4:E:68:LEU:HD13	4:E:68:LEU:N	2.34	0.42
3:N:829:VAL:O	3:N:831:GLY:N	2.48	0.42
2:M:15:LEU:N	2:M:15:LEU:HD12	2.34	0.42
3:N:1442:ASN:O	3:N:1446:VAL:HG21	2.13	0.42
3:D:1191:PRO:O	3:D:1193:THR:N	2.52	0.42
1:K:35:THR:HG23	1:L:42:ARG:HB2	2.01	0.42
3:D:1106:VAL:HG12	3:D:1107:VAL:H	1.83	0.42
3:D:731:LEU:CD2	3:D:782:SER:N	2.83	0.42
3:D:907:GLU:CD	3:D:909:ASN:H	2.21	0.42
3:N:131:LYS:C	3:N:132:TYR:CG	2.92	0.42
2:M:369:PRO:O	2:M:373:VAL:HG23	2.19	0.42
2:M:56:GLU:HB3	2:M:359:MET:SD	2.59	0.42
3:D:924:MET:CG	4:E:6:ILE:HG21	2.50	0.42
1:L:75:VAL:O	1:L:79:ILE:HG23	2.19	0.42
2:C:701:THR:HG21	2:C:830:LYS:CD	2.49	0.42
3:D:54:LYS:CG	3:D:57:GLU:HB3	2.49	0.42
2:C:584:GLU:H	2:C:584:GLU:CD	2.22	0.42
1:B:137:ARG:C	1:B:137:ARG:HD3	2.39	0.42
3:N:204:LEU:HB2	3:N:394:LEU:CD2	2.48	0.42
1:B:101:LEU:HB2	1:B:114:PHE:CG	2.53	0.42
3:N:564:GLU:OE2	3:N:567:ILE:HD12	2.19	0.42
2:C:72:ARG:NE	2:C:95:TYR:HE1	2.17	0.42
3:N:960:LYS:O	3:N:960:LYS:HG2	2.20	0.42
1:K:117:VAL:HB	1:K:120:VAL:HG12	2.01	0.42
3:D:662:GLU:HA	3:D:667:ALA:O	2.19	0.42
2:C:399:ASN:O	2:C:400:PRO:C	2.57	0.42
2:C:437:ARG:NH1	2:C:491:GLU:OE2	2.53	0.42
2:C:459:ALA:HB1	2:C:467:ILE:HG23	1.98	0.42
3:D:500:ARG:HA	3:D:500:ARG:HD2	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:520:LEU:HD21	3:D:524:LEU:HB3	2.01	0.42
3:N:732:VAL:O	3:N:736:PHE:HD1	2.01	0.42
3:N:1112:CYS:O	3:N:1189:ARG:NH2	2.51	0.42
2:M:1081:VAL:CG1	2:M:1086:ARG:HG2	2.50	0.42
3:N:1380:GLU:HB2	3:N:1420:LEU:CD1	2.50	0.42
7:Z:5:DC:H2"	7:Z:6:DT:H71	2.01	0.42
3:N:50:PHE:CD2	3:N:522:PRO:HD3	2.54	0.42
2:C:683:ASN:CA	2:C:687:ALA:HB3	2.48	0.42
3:D:949:ILE:HD11	3:D:1023:MET:CE	2.48	0.42
3:D:31:THR:C	3:D:32:ILE:HG13	2.39	0.42
3:N:396:VAL:O	3:N:398:ALA:N	2.52	0.42
1:L:176:ARG:HG3	1:L:200:TRP:CE3	2.55	0.42
2:C:674:VAL:HG11	2:C:992:MET:HB3	2.02	0.42
3:N:28:LYS:HB2	3:N:41:ARG:CD	2.48	0.42
3:D:800:LYS:HG3	3:D:829:VAL:CG1	2.49	0.42
2:M:269:LEU:HG	2:M:288:ARG:CA	2.47	0.42
1:K:64:GLU:O	1:K:75:VAL:HB	2.18	0.42
2:M:185:LYS:HB3	2:M:188:LYS:O	2.19	0.42
2:C:185:LYS:HB3	2:C:188:LYS:O	2.19	0.42
1:B:24:VAL:HG12	1:B:26:GLU:OE2	2.19	0.42
1:A:88:ARG:CG	1:A:88:ARG:HH11	2.30	0.42
1:L:90:LEU:HG	1:L:91:ASN:ND2	2.34	0.42
2:M:603:VAL:HG11	2:M:645:VAL:HA	2.01	0.42
3:D:1011:PHE:CG	3:D:1021:TYR:HB2	2.54	0.42
1:L:73:GLU:HG3	1:L:130:ALA:HB2	2.00	0.42
2:C:412:ALA:CB	2:C:451:LEU:HB3	2.50	0.42
3:N:972:LEU:HG	3:N:976:GLN:OE1	2.20	0.42
1:A:91:ASN:HA	1:A:92:PRO:HD3	1.92	0.42
2:C:198:ARG:HD2	2:C:204:GLN:OE1	2.19	0.42
2:M:43:GLY:O	2:M:47:ALA:N	2.37	0.42
3:N:676:MET:O	3:N:676:MET:SD	2.77	0.42
2:C:1089:VAL:O	2:C:1092:LEU:CB	2.67	0.42
2:C:394:PHE:O	2:C:406:HIS:CE1	2.72	0.42
3:D:105:VAL:HA	3:D:112:ILE:HG22	1.99	0.42
3:D:618:LEU:HD11	3:D:1463:LYS:HE2	2.01	0.42
3:D:84:ILE:CG1	3:D:85:VAL:N	2.81	0.42
2:M:394:PHE:CE1	2:M:632:ASN:OD1	2.73	0.42
5:X:27:DC:H3'	5:X:27:DC:OP1	2.19	0.42
6:Y:11:C:H2'	6:Y:12:U:O4'	2.20	0.42
4:E:27:ALA:HB1	4:E:60:ALA:HB1	2.01	0.42
1:K:54:THR:HB	1:K:143:ARG:HG2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:630:ARG:HD3	2:C:705:ILE:HG21	1.98	0.42
3:N:484:PRO:HB3	3:N:488:ARG:HH21	1.80	0.42
2:M:118:ILE:HA	2:M:119:PRO:HD3	1.90	0.42
1:K:38:ASN:N	1:K:39:PRO:CD	2.83	0.42
3:N:1304:LYS:C	3:N:1305:LEU:HD23	2.40	0.42
3:N:521:PRO:O	3:N:524:LEU:HB2	2.19	0.42
3:N:52:PRO:CG	3:N:80:VAL:HG13	2.50	0.42
2:M:677:MET:O	2:M:870:ILE:HG22	2.19	0.42
2:M:987:ILE:HG23	3:N:948:THR:CG2	2.38	0.42
1:L:52:ALA:HB1	1:L:170:VAL:N	2.27	0.42
1:A:26:GLU:CB	1:A:27:PRO:HA	2.49	0.42
3:D:549:ASN:O	3:D:553:ARG:CB	2.68	0.42
2:C:700:TYR:O	2:C:833:LEU:HB2	2.19	0.42
2:C:1081:VAL:CB	2:C:1086:ARG:HH21	2.32	0.42
2:M:606:VAL:HG21	2:M:645:VAL:HG22	2.01	0.42
3:D:847:ASP:O	3:D:848:GLU:C	2.57	0.42
1:K:99:LEU:N	1:K:99:LEU:CD1	2.82	0.42
2:M:191:PHE:CE2	2:M:238:LEU:HD11	2.54	0.42
3:D:770:LEU:HA	3:D:777:PRO:HA	2.00	0.42
4:E:9:LEU:HD21	4:E:69:LEU:HD12	2.00	0.42
3:D:657:LEU:O	3:D:661:MET:HG2	2.19	0.42
1:K:193:ASP:CG	2:M:938:LYS:NZ	2.72	0.42
2:C:601:GLY:HA3	2:C:615:TYR:HA	2.01	0.42
4:E:92:LEU:O	4:E:94:PRO:HD3	2.19	0.42
1:B:3:ASP:HB3	1:B:4:SER:H	1.67	0.42
2:C:1001:VAL:O	2:C:1001:VAL:HG12	2.18	0.42
2:C:841:ASN:N	2:C:841:ASN:HD22	2.17	0.42
3:N:1351:GLU:OE1	3:N:1351:GLU:HA	2.20	0.42
2:C:49:ARG:O	2:C:53:PRO:CD	2.68	0.42
2:C:408:ARG:NH1	2:C:542:VAL:CG2	2.82	0.42
3:D:1095:THR:O	3:D:1098:LEU:HB2	2.19	0.42
3:D:1259:VAL:O	3:D:1263:PHE:HD1	2.02	0.42
3:D:51:GLY:N	3:D:86:ARG:HG3	2.34	0.42
2:M:399:ASN:O	2:M:400:PRO:C	2.57	0.42
2:M:1056:LYS:CD	3:N:623:VAL:HG13	2.49	0.42
2:M:170:PRO:HG2	2:M:258:TYR:HE2	1.84	0.42
2:M:1105:LYS:O	2:M:1107:ASN:N	2.53	0.42
7:Z:7:DT:H2"	7:Z:8:DG:OP2	2.18	0.42
2:M:75:GLU:O	2:M:93:PRO:CD	2.68	0.42
1:K:38:ASN:HB3	1:K:39:PRO:HD3	2.00	0.42
3:N:1329:ALA:C	3:N:1330:ILE:HG13	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:540:LEU:HA	3:N:543:LEU:HD12	2.00	0.42
2:C:202:TYR:CZ	2:C:304:LEU:HD13	2.54	0.42
3:D:1344:VAL:O	3:D:1345:GLU:C	2.58	0.42
3:D:1412:LYS:C	3:D:1414:PRO:HD3	2.40	0.42
2:C:739:GLU:O	2:C:742:VAL:N	2.52	0.42
3:D:774:SER:O	3:D:776:GLU:N	2.53	0.42
3:D:454:ALA:O	3:D:455:ARG:HG3	2.19	0.42
2:M:6:PHE:CD2	2:M:909:ALA:HB2	2.55	0.42
2:M:553:ASP:OD1	2:M:843:HIS:HD2	2.02	0.42
2:M:887:GLU:HB3	2:M:992:MET:CE	2.49	0.42
2:M:518:LYS:HB3	2:M:518:LYS:HZ3	1.83	0.42
2:M:63:GLY:O	2:M:65:VAL:HG23	2.19	0.42
2:C:832:LYS:O	2:C:834:GLN:N	2.53	0.42
2:C:182:VAL:HG11	2:C:193:LEU:HD22	2.02	0.42
1:L:94:LEU:HD11	1:L:119:ASP:HB2	2.00	0.42
1:A:58:ILE:HB	1:A:61:VAL:HB	2.00	0.42
1:B:9:PRO:HB2	1:B:25:LEU:HD11	2.00	0.42
3:N:1397:LYS:HE3	3:N:1432:LYS:HZ2	1.85	0.42
3:D:127:LEU:CD1	3:D:127:LEU:C	2.85	0.42
3:N:1341:PRO:HA	3:N:1344:VAL:HG23	2.01	0.42
3:D:879:ARG:HH12	3:D:905:PRO:CD	2.32	0.42
4:E:49:GLN:HA	4:E:51:LEU:O	2.19	0.42
3:N:401:TYR:OH	3:N:430:ASP:OD2	2.37	0.42
3:D:1135:ARG:HB3	3:D:1140:ILE:CG1	2.49	0.42
2:C:658:GLY:N	2:C:661:SER:OG	2.52	0.42
1:B:154:GLU:O	1:B:154:GLU:HG2	2.19	0.42
2:C:1033:GLY:O	2:C:1037:VAL:HG23	2.19	0.42
2:C:328:LEU:CD1	2:C:328:LEU:H	2.32	0.42
3:D:1266:ARG:O	3:D:1268:PRO:HD3	2.20	0.42
2:M:1032:PHE:O	2:M:1036:GLU:CD	2.58	0.42
2:M:1052:MET:SD	2:M:1056:LYS:HD2	2.59	0.42
2:M:683:ASN:O	2:M:872:ASN:CB	2.63	0.42
4:O:59:ASN:HB3	4:O:62:THR:OG1	2.20	0.42
2:M:259:GLY:O	2:M:290:LEU:O	2.37	0.42
2:M:1088:LEU:O	2:M:1091:GLU:HB2	2.20	0.42
2:C:1009:SER:HB3	3:D:651:GLU:O	2.19	0.42
4:E:24:ALA:O	4:E:28:GLN:HG3	2.19	0.42
1:K:178:ALA:HB2	2:M:864:GLY:CA	2.48	0.42
2:M:408:ARG:HH21	2:M:455:LEU:CD1	2.33	0.42
1:K:158:ILE:H	1:K:166:PRO:CG	2.32	0.42
3:N:1417:TRP:CD1	3:N:1418:LYS:N	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:481:MET:CE	3:N:493:ARG:HA	2.50	0.42
3:N:108:VAL:HB	3:N:109:PRO:CD	2.37	0.42
7:Z:4:DG:C4	7:Z:5:DC:C5	3.07	0.42
3:D:1336:LEU:O	3:D:1340:GLY:N	2.50	0.42
3:D:771:SER:HB3	3:D:778:LEU:HD22	2.01	0.42
1:L:25:LEU:HG	1:L:28:LEU:HD21	2.01	0.42
2:M:969:GLN:CD	3:N:952:ASP:HB2	2.39	0.42
2:M:197:LEU:HD22	2:M:202:TYR:CD2	2.55	0.42
2:C:579:VAL:CG1	2:C:842:ARG:HH22	2.20	0.42
1:A:111:ALA:O	1:A:114:PHE:HD1	2.02	0.42
3:N:1258:ARG:NE	3:N:1262:LEU:HD11	2.33	0.42
2:C:1105:LYS:O	2:C:1107:ASN:N	2.53	0.42
3:D:1401:GLU:OE2	3:D:1415:VAL:HG11	2.19	0.42
3:N:1168:MET:HG3	3:N:1172:HIS:CE1	2.54	0.42
3:N:689:ASP:O	3:N:692:GLU:HB3	2.19	0.42
2:M:13:ILE:HA	2:M:14:PRO:HD3	1.86	0.42
2:M:575:GLN:N	2:M:670:GLN:OE1	2.53	0.42
1:L:31:GLY:O	1:L:35:THR:OG1	2.36	0.42
3:D:1176:LYS:O	3:D:1179:GLU:HB2	2.19	0.42
3:D:1377:LYS:HE2	3:D:1378:TYR:OH	2.20	0.42
3:D:107:ASP:OD2	3:D:1445:HIS:CD2	2.72	0.42
3:D:612:GLY:H	3:D:615:ARG:HB2	1.84	0.42
5:G:12:DA:C2'	5:G:13:DA:OP2	2.67	0.42
3:N:1466:VAL:C	3:N:1469:GLY:H	2.23	0.42
3:N:764:LEU:HD12	3:N:765:SER:H	1.83	0.42
3:N:603:LEU:HD23	3:N:603:LEU:HA	1.83	0.42
4:E:31:LEU:HB2	4:E:32:ARG:H	1.69	0.42
2:M:941:VAL:CA	2:M:944:LEU:HB2	2.48	0.42
2:C:693:GLU:HG2	2:C:697:ARG:NH2	2.26	0.42
2:C:863:ASP:CG	2:C:865:THR:HG22	2.40	0.42
2:C:863:ASP:OD2	2:C:863:ASP:C	2.58	0.42
2:C:1046:ALA:HA	3:D:1472:ILE:HD11	2.01	0.42
2:C:260:LEU:HD21	2:C:293:PHE:CZ	2.54	0.42
3:D:33:ASN:O	3:D:36:THR:O	2.37	0.42
3:D:880:ILE:O	3:D:883:ALA:HB3	2.19	0.42
3:D:644:LEU:HD12	3:D:645:PRO:HD2	2.02	0.42
2:M:338:GLU:C	2:M:341:THR:HG22	2.39	0.42
3:D:117:ASP:HB2	3:D:495:ARG:HH12	1.80	0.42
2:C:192:PRO:C	2:C:193:LEU:HD12	2.40	0.42
3:D:951:ILE:HD12	3:D:1062:ARG:NE	2.22	0.42
3:N:1397:LYS:CE	3:N:1432:LYS:HZ2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:473:ARG:HG3	2:C:474:VAL:N	2.34	0.42
1:B:76:VAL:HA	1:B:79:ILE:HD11	2.02	0.42
3:N:1231:GLU:HB3	3:N:1232:PRO:HD3	2.02	0.42
1:A:78:ILE:O	1:A:81:ASN:N	2.52	0.42
2:C:520:GLU:HA	2:C:521:PRO:HD3	1.86	0.42
2:C:1098:ASP:HB2	3:D:13:ALA:HB2	2.01	0.42
3:D:613:ARG:HA	3:D:613:ARG:HD3	1.74	0.42
3:D:743:ASP:N	3:D:743:ASP:OD2	2.53	0.42
2:M:1047:HIS:CE1	3:N:754:PHE:CE1	3.07	0.42
2:M:252:LYS:HB3	2:M:298:PHE:HZ	1.83	0.42
2:C:50:GLU:HA	2:C:266:ARG:NE	2.27	0.42
3:N:625:TYR:HD2	3:N:652:LEU:O	1.99	0.42
4:E:27:ALA:HA	4:E:30:LEU:CD1	2.48	0.42
6:H:5:C:O2	6:H:5:C:H2'	2.14	0.42
3:N:484:PRO:O	3:N:489:ARG:CD	2.68	0.42
5:X:13:DA:C4	5:X:14:DG:N7	2.88	0.42
2:M:431:HIS:CD2	2:M:434:HIS:CE1	3.08	0.42
3:N:1284:GLU:HG3	3:N:1286:THR:H	1.84	0.42
1:A:65:PHE:HE1	2:C:799:ILE:CG2	2.32	0.42
2:M:31:GLN:O	2:M:31:GLN:CG	2.68	0.42
3:N:1383:ASP:HB2	3:N:1416:ALA:CB	2.42	0.42
1:B:104:GLU:HA	1:B:136:GLY:O	2.19	0.42
3:N:644:LEU:O	3:N:720:LEU:HA	2.20	0.42
3:D:528:VAL:O	3:D:535:PHE:CD2	2.72	0.42
3:N:1432:LYS:NZ	3:N:1432:LYS:HB2	2.34	0.42
2:C:878:SER:HB3	3:D:1029:ARG:NH1	2.35	0.42
3:D:1071:PHE:O	3:D:1071:PHE:CD1	2.73	0.42
2:C:768:THR:HA	2:C:769:PRO:HD3	1.88	0.42
2:C:768:THR:HG22	2:C:771:GLU:H	1.84	0.42
2:M:247:PRO:HA	2:M:248:PRO:HD3	1.88	0.42
2:M:711:GLU:HG2	2:M:822:VAL:HG12	2.02	0.42
2:C:39:ARG:O	2:C:40:GLU:C	2.58	0.42
3:D:1447:LEU:O	3:D:1450:ALA:N	2.53	0.42
3:D:1223:ILE:CD1	3:D:1462:LEU:HD11	2.49	0.42
3:D:1093:TYR:OH	5:G:17:DA:H1'	2.20	0.42
7:I:1:DG:P	7:I:1:DG:C3'	3.06	0.42
2:M:1034:GLU:CD	2:M:1038:TRP:CZ2	2.93	0.42
3:N:640:HIS:CD2	3:N:641:GLN:HG3	2.55	0.42
3:N:739:ASP:OD1	3:N:739:ASP:N	2.53	0.42
1:A:218:LEU:HD23	1:B:222:LEU:HD22	2.01	0.42
2:C:269:LEU:HB2	2:C:288:ARG:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:109:PRO:O	3:N:111:LYS:N	2.52	0.42
7:Z:14:DG:C5	7:Z:15:DT:H73	2.54	0.42
2:C:675:ALA:HB2	2:C:867:VAL:HG11	2.01	0.42
3:D:1112:CYS:O	3:D:1189:ARG:NH2	2.50	0.42
2:C:974:LEU:HA	2:C:974:LEU:HD12	1.92	0.42
2:M:437:ARG:HH22	2:M:488:ALA:HA	1.81	0.42
3:N:1271:LYS:NZ	3:N:1331:ASP:CB	2.68	0.42
3:N:520:LEU:HG	3:N:521:PRO:HD2	2.01	0.42
3:D:1336:LEU:HA	3:D:1344:VAL:HG22	2.02	0.42
2:C:688:ILE:HD13	2:C:847:GLY:CA	2.43	0.42
2:M:751:PRO:HA	2:M:792:VAL:HG12	2.02	0.42
2:M:677:MET:HB2	2:M:987:ILE:HD13	2.00	0.42
2:C:64:LEU:HD13	2:C:359:MET:CG	2.50	0.42
3:N:1257:PRO:O	3:N:1260:ILE:HG12	2.19	0.42
3:D:1389:LEU:O	3:D:1390:LEU:C	2.58	0.42
1:A:112:ARG:NH2	1:A:125:PRO:HB2	2.24	0.42
3:D:646:LYS:O	3:D:649:ALA:HB3	2.20	0.42
2:C:583:LEU:N	2:C:583:LEU:CD1	2.83	0.42
1:B:150:TYR:CE2	1:B:168:ASP:HB3	2.52	0.42
3:N:149:LYS:HE3	3:N:150:ARG:N	2.26	0.42
1:B:76:VAL:O	1:B:79:ILE:HG12	2.20	0.42
2:M:700:TYR:CB	2:M:833:LEU:HD22	2.49	0.42
1:K:109:VAL:HG21	1:K:138:LEU:HD23	2.02	0.42
3:D:62:LYS:HB2	3:D:73:CYS:SG	2.60	0.42
2:C:430:VAL:HG13	3:D:1075:HIS:ND1	2.35	0.42
3:N:1296:SER:C	3:N:1298:GLY:N	2.73	0.42
2:C:738:ASP:HB2	2:C:744:ARG:HB3	2.01	0.42
3:N:777:PRO:O	3:N:780:LYS:HE2	2.20	0.42
2:C:1114:GLY:C	2:C:1115:LEU:HD12	2.41	0.41
2:C:328:LEU:CD1	2:C:328:LEU:N	2.83	0.41
2:C:404:LEU:O	2:C:407:LYS:HB2	2.20	0.41
2:C:275:TYR:OH	2:C:489:THR:HG21	2.19	0.41
3:D:486:ARG:O	3:D:490:ALA:CB	2.68	0.41
3:D:92:HIS:HA	3:D:517:VAL:O	2.20	0.41
3:N:1483:PHE:O	4:O:77:GLU:O	2.38	0.41
3:N:654:LYS:N	3:N:655:PRO:CD	2.82	0.41
2:M:926:PHE:HA	2:M:929:ARG:HB2	2.01	0.41
2:C:630:ARG:HD2	2:C:634:GLY:CA	2.21	0.41
3:N:1447:LEU:O	3:N:1450:ALA:N	2.53	0.41
7:Z:2:DT:C1'	7:Z:3:DA:H5'	2.41	0.41
2:C:670:GLN:NE2	2:C:699:PHE:HD2	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1189:ARG:CD	3:D:1204:CYS:SG	3.00	0.41
2:C:861:LEU:HD21	2:C:925:TYR:HE2	1.79	0.41
2:C:926:PHE:CE2	2:C:930:LYS:HD2	2.55	0.41
3:N:181:ASP:HB2	3:N:441:ARG:HD3	1.94	0.41
3:N:1331:ASP:HA	3:N:1332:PRO:HD3	1.76	0.41
3:N:187:LYS:HE2	3:N:199:LEU:HG	2.01	0.41
2:M:676:ILE:HD13	3:N:949:ILE:O	2.19	0.41
2:C:187:ASN:OD1	2:C:188:LYS:HE2	2.19	0.41
2:C:191:PHE:O	2:C:193:LEU:HD12	2.20	0.41
1:L:201:THR:CG2	1:L:205:VAL:HG23	2.50	0.41
3:D:1154:GLU:CD	3:N:563:PRO:HA	2.40	0.41
3:D:100:ALA:HB2	3:D:513:ILE:HG22	2.02	0.41
1:B:102:LYS:CE	1:B:139:ASN:HB2	2.44	0.41
3:N:413:ASP:O	3:N:435:VAL:HG23	2.20	0.41
3:N:1323:GLN:N	3:N:1324:PRO:HD3	2.34	0.41
3:N:204:LEU:HD12	3:N:394:LEU:HG	2.02	0.41
3:D:97:THR:HG23	3:D:98:PRO:HD2	2.01	0.41
2:M:817:PRO:O	3:N:532:GLY:CA	2.67	0.41
2:C:1105:LYS:NZ	2:C:1107:ASN:HB2	2.34	0.41
3:N:1401:GLU:C	3:N:1401:GLU:CD	2.79	0.41
1:K:211:LEU:O	1:K:215:VAL:HG23	2.20	0.41
3:D:706:PRO:HG3	5:G:19:DG:N2	2.35	0.41
3:N:609:GLY:O	3:N:615:ARG:CG	2.68	0.41
3:N:633:VAL:HG22	3:N:634:GLY:N	2.35	0.41
3:N:783:ARG:O	3:N:787:LEU:HB2	2.19	0.41
3:N:698:LYS:CE	4:O:59:ASN:OD1	2.68	0.41
3:N:1195:GLN:HG3	3:N:1196:THR:N	2.35	0.41
3:N:1123:PHE:HA	3:N:1133:ARG:O	2.20	0.41
2:M:1090:LYS:O	2:M:1094:ALA:N	2.47	0.41
3:N:147:VAL:O	3:N:147:VAL:HG13	2.20	0.41
2:C:634:GLY:O	2:C:705:ILE:CB	2.68	0.41
2:C:267:TYR:CE2	2:C:289:THR:HG23	2.55	0.41
3:N:131:LYS:O	3:N:132:TYR:CD2	2.73	0.41
2:M:368:THR:N	2:M:369:PRO:CD	2.83	0.41
3:D:1237:THR:HG22	3:D:1238:MET:HG3	2.01	0.41
2:M:793:PRO:O	2:M:794:PRO:C	2.58	0.41
3:D:928:ALA:C	3:D:930:LEU:N	2.73	0.41
4:E:8:LYS:O	4:E:12:MET:HG3	2.19	0.41
3:N:847:ASP:HA	3:N:850:LEU:HD13	2.02	0.41
3:N:539:ASP:O	3:N:541:ASN:N	2.53	0.41
3:D:550:ARG:HA	3:D:550:ARG:HD3	1.71	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:30:GLU:HB2	3:N:41:ARG:HG3	2.01	0.41
3:D:759:ALA:HA	3:D:763:MET:HB2	2.02	0.41
2:M:140:ILE:HD13	2:M:331:ARG:NH2	2.31	0.41
2:M:288:ARG:HG3	2:M:288:ARG:HH11	1.83	0.41
1:A:123:MET:O	1:A:125:PRO:HD3	2.21	0.41
1:L:101:LEU:CD2	1:L:101:LEU:C	2.84	0.41
1:L:59:GLU:CB	1:L:137:ARG:HH22	2.33	0.41
2:C:668:LEU:H	2:C:668:LEU:HD12	1.84	0.41
3:N:587:ARG:HG2	3:N:587:ARG:HH11	1.85	0.41
3:D:1264:GLU:OE2	3:D:1425:THR:HB	2.21	0.41
3:D:18:ILE:HG23	3:D:518:PRO:HG3	2.02	0.41
3:D:493:ARG:CG	3:D:494:LYS:N	2.83	0.41
3:D:7:LYS:HG2	3:D:1458:GLU:CA	2.44	0.41
5:G:24:DC:H2"	5:G:25:DG:C8	2.55	0.41
2:M:1051:GLU:OE2	3:N:752:SER:N	2.53	0.41
2:M:393:GLN:HG2	6:Y:10:G:C4'	2.45	0.41
3:N:1211:MET:HE2	3:N:1213:ARG:HB3	2.02	0.41
5:X:26:DC:O2	5:X:26:DC:C2'	2.65	0.41
2:M:170:PRO:CG	2:M:258:TYR:CE2	3.03	0.41
2:M:264:PRO:CB	2:M:289:THR:CB	2.96	0.41
3:N:1129:THR:CG2	3:N:1130:ARG:H	2.01	0.41
2:M:1112:PHE:N	2:M:1112:PHE:CD2	2.85	0.41
3:N:606:ILE:O	3:N:613:ARG:HB2	2.20	0.41
7:Z:10:DG:C2	7:Z:11:DG:C4	3.08	0.41
2:C:694:LEU:O	2:C:697:ARG:O	2.38	0.41
3:D:1114:THR:CG2	3:D:1195:GLN:HB3	2.46	0.41
1:K:38:ASN:HB2	2:M:980:GLY:HA3	2.03	0.41
3:N:51:GLY:HA3	3:N:86:ARG:CA	2.50	0.41
3:D:764:LEU:HD12	3:D:765:SER:N	2.35	0.41
2:M:677:MET:HA	2:M:678:PRO:HD3	1.88	0.41
3:D:924:MET:HG2	4:E:6:ILE:HG21	2.01	0.41
3:N:845:ASN:N	3:N:848:GLU:HG3	2.36	0.41
2:M:141:HIS:CD2	2:M:332:ARG:O	2.71	0.41
2:M:285:LEU:HD11	2:M:288:ARG:O	2.21	0.41
2:C:140:ILE:HD12	2:C:140:ILE:O	2.21	0.41
2:C:584:GLU:HB2	2:C:666:LEU:H	1.84	0.41
1:L:123:MET:HG2	1:L:123:MET:H	1.55	0.41
3:D:99:ALA:HA	3:D:458:ALA:CB	2.50	0.41
3:D:983:LEU:CG	3:D:984:THR:N	2.82	0.41
3:N:1401:GLU:CD	3:N:1415:VAL:HG11	2.41	0.41
3:N:407:VAL:HG12	3:N:408:GLU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1094:LEU:CD1	3:D:1260:ILE:HD12	2.49	0.41
3:D:609:GLY:O	3:D:615:ARG:HD3	2.20	0.41
3:D:741:ASP:O	6:H:14:G:H5'	2.20	0.41
2:M:1040:LEU:HD23	2:M:1049:LEU:HB2	2.02	0.41
2:M:403:SER:OG	2:M:404:LEU:N	2.53	0.41
2:M:265:ARG:C	2:M:267:TYR:N	2.73	0.41
3:N:1103:HIS:O	3:N:1105:ILE:N	2.53	0.41
2:M:1081:VAL:O	2:M:1086:ARG:NE	2.54	0.41
3:N:835:SER:N	3:N:838:ARG:HD3	2.35	0.41
2:M:535:SER:O	2:M:538:GLN:OE1	2.38	0.41
3:N:586:ARG:NH2	5:X:16:DT:OP1	2.53	0.41
7:Z:8:DG:H2''	7:Z:9:DT:OP2	2.19	0.41
2:M:88:LEU:HA	2:M:88:LEU:HD13	1.82	0.41
2:M:89:THR:O	2:M:91:GLN:HG3	2.19	0.41
3:D:1344:VAL:HG12	3:D:1348:LEU:CD1	2.51	0.41
4:E:5:GLY:HA3	4:E:8:LYS:HD2	2.02	0.41
2:M:714:ASP:OD1	2:M:719:PRO:HB3	2.19	0.41
2:M:39:ARG:O	2:M:40:GLU:C	2.58	0.41
2:M:461:VAL:HG13	2:M:465:GLY:HA2	2.01	0.41
2:C:946:ARG:HH11	2:C:946:ARG:CB	2.31	0.41
3:N:784:ASP:HB3	3:N:939:PHE:CE2	2.48	0.41
2:C:140:ILE:HA	2:C:332:ARG:O	2.20	0.41
2:C:532:MET:CE	2:C:533:ASP:O	2.68	0.41
1:K:23:PHE:HB2	1:K:197:LEU:HG	2.01	0.41
1:L:201:THR:HG22	1:L:203:GLY:H	1.85	0.41
2:C:905:ILE:N	2:C:905:ILE:CD1	2.84	0.41
3:D:1154:GLU:HB2	3:N:562:ALA:H	1.82	0.41
2:M:737:LEU:HD23	2:M:737:LEU:O	2.19	0.41
2:C:13:ILE:HA	2:C:14:PRO:HD3	1.89	0.41
1:B:58:ILE:HD13	1:B:58:ILE:HA	1.89	0.41
2:M:959:PRO:CA	2:M:962:GLN:HG3	2.44	0.41
2:M:557:ARG:NH1	2:M:844:GLY:O	2.53	0.41
2:C:208:ALA:HB1	2:C:218:VAL:HG11	2.02	0.41
2:M:723:THR:C	2:M:725:ASP:H	2.24	0.41
1:K:94:LEU:HD11	1:K:119:ASP:HB3	2.02	0.41
1:K:20:TYR:HD2	1:K:199:ILE:O	2.03	0.41
3:N:753:SER:HB3	4:O:27:ALA:HB3	2.02	0.41
3:D:1158:VAL:HG12	3:D:1159:ARG:N	2.35	0.41
2:C:189:ARG:HA	2:C:189:ARG:NE	2.34	0.41
2:C:121:MET:HE2	2:C:125:GLY:HA2	2.02	0.41
3:D:1041:LEU:HD13	3:D:1045:MET:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:500:ARG:O	3:D:501:ALA:C	2.58	0.41
3:D:741:ASP:OD1	6:H:15:C:OP1	2.37	0.41
5:G:8:DC:C2'	5:G:9:DC:OP2	2.55	0.41
7:I:8:DG:O5'	7:I:8:DG:C2'	2.68	0.41
2:M:1066:ALA:O	2:M:1069:ALA:HB3	2.21	0.41
3:N:778:LEU:HD12	3:N:778:LEU:HA	1.79	0.41
3:N:928:ALA:C	3:N:930:LEU:N	2.72	0.41
2:M:265:ARG:CG	2:M:267:TYR:HB3	2.51	0.41
2:M:267:TYR:CB	2:M:272:ALA:HB1	2.49	0.41
2:C:976:ASP:HB2	2:C:981:GLU:O	2.20	0.41
1:K:178:ALA:HB3	1:K:198:ARG:CG	2.50	0.41
3:N:107:ASP:OD2	3:N:109:PRO:HD2	2.20	0.41
3:N:1447:LEU:CD1	3:N:1447:LEU:N	2.83	0.41
3:D:1365:ASP:O	3:D:1366:LYS:C	2.59	0.41
2:C:862:PRO:HD3	2:C:973:VAL:O	2.21	0.41
3:D:910:SER:OG	3:D:911:LEU:HD12	2.20	0.41
3:D:785:ILE:HG22	3:D:938:GLY:HA3	2.02	0.41
2:C:267:TYR:HE2	2:C:289:THR:HG23	1.86	0.41
2:C:272:ALA:O	2:C:276:LYS:NZ	2.51	0.41
3:N:171:LEU:CG	3:N:195:VAL:CG2	2.89	0.41
3:N:949:ILE:HD13	3:N:1019:PRO:HB2	2.01	0.41
3:D:918:ALA:HB3	3:D:927:THR:HG23	2.01	0.41
2:M:922:PHE:HB3	2:M:964:LYS:HZ2	1.85	0.41
2:M:650:ARG:HD2	2:M:653:ASP:OD2	2.20	0.41
2:M:46:ALA:C	2:M:48:PHE:N	2.71	0.41
1:A:137:ARG:HG3	1:A:137:ARG:HH11	1.85	0.41
2:C:31:GLN:OE1	2:C:31:GLN:O	2.39	0.41
2:M:612:VAL:HG22	2:M:622:GLU:HA	2.02	0.41
1:L:201:THR:CG2	1:L:205:VAL:O	2.61	0.41
3:N:564:GLU:HA	3:N:567:ILE:CD1	2.50	0.41
3:D:97:THR:CB	3:D:571:LYS:HE2	2.45	0.41
2:C:890:LEU:HD21	2:C:901:TYR:CD1	2.55	0.41
3:N:117:ASP:CB	3:N:495:ARG:HH22	2.33	0.41
2:M:295:ASP:C	2:M:297:GLU:H	2.23	0.41
2:C:766:GLU:HA	2:C:767:PRO:HD3	1.87	0.41
3:D:982:PHE:C	3:D:982:PHE:CD2	2.93	0.41
3:D:1265:ALA:C	3:D:1266:ARG:HG3	2.40	0.41
3:D:487:ALA:HB2	5:G:8:DC:OP2	2.20	0.41
7:I:4:DG:O5'	7:I:4:DG:H2'	2.21	0.41
2:M:1008:ARG:HH21	2:M:1012:PRO:CD	2.33	0.41
2:M:402:SER:HB2	2:M:566:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:1465:ASN:HD22	3:N:1465:ASN:HA	1.58	0.41
3:N:704:ARG:HE	3:N:706:PRO:CD	2.25	0.41
4:O:13:VAL:HG12	4:O:14:ASP:N	2.34	0.41
6:Y:5:C:C2'	6:Y:6:C:OP1	2.69	0.41
3:N:1109:GLU:CD	3:N:1201:CYS:HA	2.41	0.41
3:D:750:PRO:HB3	3:D:756:GLN:HA	2.03	0.41
3:N:477:LEU:HD22	3:N:492:ALA:CB	2.48	0.41
2:M:937:ASP:H	2:M:940:GLU:HG3	1.86	0.41
2:C:634:GLY:CA	2:C:705:ILE:O	2.67	0.41
3:D:1147:ARG:NH1	3:D:1189:ARG:O	2.53	0.41
1:K:39:PRO:O	1:K:43:ILE:HG12	2.20	0.41
3:N:1267:ARG:HG2	3:N:1268:PRO:HD2	2.02	0.41
3:N:80:VAL:HG12	3:N:81:THR:N	2.36	0.41
3:N:62:LYS:HD2	3:N:75:ARG:HH11	1.86	0.41
3:D:153:LEU:O	3:D:153:LEU:HD12	2.21	0.41
2:M:754:ILE:CD1	2:M:791:ARG:CZ	2.98	0.41
1:L:176:ARG:NH2	3:N:884:ARG:HG3	2.36	0.41
1:L:80:LEU:O	3:N:844:ALA:CB	2.65	0.41
3:N:881:LEU:O	3:N:885:ILE:HG13	2.21	0.41
2:M:630:ARG:CG	2:M:630:ARG:NH1	2.81	0.41
3:D:549:ASN:O	3:D:553:ARG:N	2.46	0.41
2:C:759:THR:HB	2:C:785:VAL:HG13	2.02	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:CA	2.49	0.41
2:C:176:VAL:HG12	2:C:182:VAL:HG13	2.01	0.41
3:D:1460:ILE:CG1	3:D:1460:ILE:O	2.61	0.41
1:L:90:LEU:H	1:L:94:LEU:HD12	1.86	0.41
3:D:1154:GLU:CA	3:N:562:ALA:H	2.34	0.41
3:N:1394:VAL:CB	3:N:1397:LYS:HE2	2.48	0.41
2:C:75:GLU:O	2:C:93:PRO:CD	2.68	0.41
2:C:72:ARG:CZ	2:C:95:TYR:HE1	2.33	0.41
2:M:430:VAL:O	2:M:430:VAL:HG22	2.21	0.41
1:K:101:LEU:O	1:K:101:LEU:HD23	2.20	0.41
3:D:163:TYR:N	3:D:163:TYR:CD1	2.82	0.41
3:D:770:LEU:HD23	3:D:777:PRO:HA	2.02	0.41
2:M:799:ILE:O	2:M:827:VAL:HG13	2.20	0.41
2:C:9:ILE:CD1	2:C:9:ILE:O	2.69	0.41
2:C:878:SER:HB2	3:D:1029:ARG:NH1	2.36	0.41
3:D:1074:SER:O	3:D:1078:ARG:HB2	2.20	0.41
2:C:115:LEU:O	2:C:115:LEU:HD12	2.20	0.41
1:B:106:PRO:HG3	1:B:133:GLU:O	2.20	0.41
2:M:1039:ALA:O	2:M:1042:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:754:ILE:HA	2:C:791:ARG:HA	2.02	0.41
2:C:882:LEU:HD12	3:D:1061:PHE:C	2.40	0.41
2:C:1030:GLN:HE22	3:D:628:ARG:HG2	1.85	0.41
3:N:704:ARG:HD3	3:N:738:ALA:HB2	2.03	0.41
3:N:912:LYS:NZ	3:N:1362:LYS:NZ	2.68	0.41
1:B:36:LEU:C	1:B:39:PRO:HD2	2.41	0.41
2:M:1111:ILE:H	2:M:1111:ILE:HG12	1.46	0.41
3:N:829:VAL:HG12	3:N:830:ALA:N	2.35	0.41
2:C:573:ARG:HB2	2:C:670:GLN:HE22	1.86	0.41
3:N:52:PRO:HG3	3:N:80:VAL:HG13	2.02	0.41
3:N:55:ASP:CB	3:N:82:LYS:HE2	2.50	0.41
2:C:264:PRO:CB	2:C:289:THR:CB	2.98	0.41
3:N:653:PHE:HZ	3:N:749:VAL:HG13	1.83	0.41
3:D:1083:ASP:C	3:D:1087:ARG:HG2	2.35	0.41
3:N:41:ARG:C	3:N:43:GLY:N	2.72	0.41
2:M:141:HIS:O	2:M:331:ARG:HB3	2.21	0.41
1:A:101:LEU:HD23	1:A:101:LEU:O	2.20	0.41
1:A:110:LYS:HB2	1:A:112:ARG:HG2	2.02	0.41
1:L:101:LEU:HD13	1:L:114:PHE:CD1	2.56	0.41
3:D:100:ALA:HB3	3:D:128:TYR:OH	2.20	0.41
2:C:75:GLU:O	2:C:93:PRO:HD3	2.20	0.41
3:N:25:GLU:HG3	3:N:92:HIS:O	2.21	0.41
2:C:668:LEU:N	2:C:668:LEU:HD12	2.36	0.41
2:M:364:GLU:HB3	2:M:365:ASP:H	1.77	0.41
3:N:871:LYS:HB3	3:N:871:LYS:HE2	1.83	0.41
1:L:158:ILE:CG2	1:L:159:LYS:N	2.83	0.41
3:D:662:GLU:HG3	3:D:668:PRO:O	2.20	0.41
2:M:412:ALA:HB1	2:M:419:THR:HG21	2.03	0.41
3:N:962:GLN:O	3:N:965:GLU:HB3	2.21	0.41
2:C:317:VAL:C	2:C:319:GLY:N	2.68	0.41
3:D:147:VAL:HG13	3:D:147:VAL:O	2.20	0.41
3:D:1225:ALA:HA	3:D:1367:HIS:CG	2.56	0.41
3:D:1264:GLU:HB3	3:D:1266:ARG:CD	2.50	0.41
3:D:481:MET:O	3:D:489:ARG:HB2	2.20	0.41
2:M:683:ASN:CA	2:M:687:ALA:HB3	2.51	0.41
3:N:918:ALA:HB3	3:N:927:THR:HG23	2.01	0.41
4:O:21:VAL:O	4:O:24:ALA:HB3	2.21	0.41
2:M:1002:GLU:CA	5:X:23:DG:H5"	2.46	0.41
3:N:1033:GLN:O	3:N:1036:ARG:HB3	2.21	0.41
3:N:1365:ASP:O	3:N:1366:LYS:C	2.59	0.41
3:N:455:ARG:HB3	3:N:459:GLU:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:X:3:DC:O5'	5:X:3:DC:H2'	2.21	0.41
7:Z:2:DT:H1'	7:Z:3:DA:C5'	2.43	0.41
7:Z:3:DA:C2'	7:Z:3:DA:O5'	2.69	0.41
3:D:907:GLU:OE2	3:D:909:ASN:HB2	2.21	0.41
3:N:1294:VAL:O	3:N:1300:SER:HA	2.20	0.41
3:N:522:PRO:CA	3:N:525:ARG:NH1	2.72	0.41
3:D:36:THR:C	3:D:38:LYS:N	2.73	0.41
3:D:880:ILE:CG2	3:D:881:LEU:N	2.84	0.41
2:M:903:SER:C	2:M:904:PRO:O	2.58	0.41
2:M:905:ILE:HG22	2:M:906:PHE:CD1	2.56	0.41
2:M:474:VAL:HG23	2:M:478:VAL:C	2.40	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:CB	2.51	0.41
2:C:186:VAL:HG23	2:C:187:ASN:N	2.22	0.41
3:D:792:ILE:HD12	3:D:941:PHE:CZ	2.56	0.41
5:G:2:DT:OP1	5:G:2:DT:O4'	2.39	0.41
1:A:56:VAL:HG22	1:A:142:VAL:HG12	2.03	0.41
3:N:549:ASN:O	3:N:553:ARG:CB	2.69	0.41
2:C:518:LYS:NZ	2:C:518:LYS:CB	2.83	0.41
2:C:352:ALA:HA	2:C:355:VAL:CG1	2.51	0.41
2:C:524:VAL:CG1	2:C:525:SER:H	2.32	0.41
3:D:988:ARG:O	3:D:992:ILE:HG13	2.20	0.41
3:N:117:ASP:HB2	3:N:495:ARG:NH2	2.36	0.41
2:C:160:ALA:CB	2:C:174:LEU:HD12	2.50	0.41
1:K:45:LEU:CD1	1:K:45:LEU:N	2.84	0.41
2:C:754:ILE:HG12	2:C:791:ARG:NH1	2.36	0.41
3:D:1086:LEU:N	3:D:1086:LEU:HD12	2.35	0.41
3:D:1489:GLN:HG2	3:D:1489:GLN:H	1.56	0.41
3:D:900:ILE:O	3:D:900:ILE:HD12	2.21	0.41
2:C:1014:SER:N	2:C:1019:GLN:O	2.53	0.41
2:C:1042:ALA:N	3:D:1223:ILE:HG21	2.36	0.41
3:D:1096:ARG:NH1	5:G:18:DC:OP1	2.54	0.41
3:D:15:PRO:HB2	3:D:16:GLU:OE2	2.20	0.41
3:D:708:LEU:O	3:D:1227:GLN:HG2	2.21	0.41
5:G:13:DA:C2'	5:G:13:DA:O5'	2.67	0.41
2:C:18:LEU:N	2:C:18:LEU:CD1	2.76	0.41
3:D:25:GLU:HG2	3:D:26:VAL:N	2.36	0.41
2:C:1115:LEU:CD2	3:D:88:TYR:CD1	3.04	0.41
3:D:706:PRO:HG2	5:G:19:DG:N2	2.35	0.41
7:I:8:DG:C2'	7:I:9:DT:OP2	2.65	0.41
2:M:1034:GLU:HB2	2:M:1038:TRP:CE2	2.56	0.41
6:Y:7:G:H2'	6:Y:8:G:O5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:163:ILE:HG13	2:M:163:ILE:O	2.21	0.41
1:A:222:LEU:HD23	1:B:219:ARG:CG	2.50	0.41
1:A:32:PHE:O	1:A:36:LEU:HG	2.21	0.41
3:N:1200:VAL:HG12	3:N:1201:CYS:N	2.36	0.41
3:N:1108:ARG:HD3	3:N:1108:ARG:N	2.36	0.41
3:N:1364:HIS:CE1	3:N:1366:LYS:HG3	2.55	0.41
2:M:1111:ILE:HG13	2:M:1112:PHE:N	2.33	0.41
2:M:1105:LYS:HG3	2:M:1105:LYS:H	1.68	0.41
3:D:696:HIS:CD2	4:E:59:ASN:CA	3.04	0.41
3:N:646:LYS:CG	3:N:688:TRP:CZ2	3.03	0.41
3:D:807:ALA:HA	3:D:833:GLU:CB	2.51	0.41
2:M:408:ARG:NH2	2:M:455:LEU:CD1	2.84	0.41
3:N:95:LEU:HD23	3:N:95:LEU:HA	1.83	0.41
5:X:4:DA:O5'	5:X:4:DA:H2'	2.21	0.41
7:Z:5:DC:O5'	7:Z:5:DC:H2'	2.21	0.41
1:K:42:ARG:HH12	1:L:34:VAL:HG12	1.86	0.41
2:C:1046:ALA:HA	3:D:1472:ILE:CD1	2.51	0.41
2:M:437:ARG:NH2	2:M:491:GLU:OE2	2.54	0.41
3:D:781:PRO:O	3:D:786:ILE:HD11	2.21	0.41
3:D:899:LEU:HD22	3:D:917:GLN:HG2	1.93	0.41
2:C:293:PHE:N	2:C:293:PHE:CD1	2.89	0.41
3:N:129:PHE:O	3:N:572:ARG:HG2	2.21	0.41
3:N:143:ASN:OD1	3:N:145:VAL:N	2.50	0.41
3:D:932:ASP:O	3:D:935:LYS:CE	2.69	0.41
3:D:875:THR:HG22	3:D:876:SER:H	1.86	0.41
1:L:199:ILE:HG22	1:L:200:TRP:N	2.35	0.41
2:C:858:MET:HE2	2:C:870:ILE:HD11	2.03	0.41
3:N:875:THR:CG2	3:N:879:ARG:HB2	2.51	0.41
3:N:880:ILE:CG2	3:N:881:LEU:N	2.83	0.41
3:N:1257:PRO:O	3:N:1261:GLU:HG3	2.21	0.41
2:M:66:LEU:HD12	2:M:99:GLN:C	2.40	0.41
2:M:31:GLN:NE2	2:M:35:PRO:O	2.54	0.41
2:C:35:PRO:HA	2:C:36:PRO:HD3	1.92	0.41
1:A:101:LEU:HB2	1:A:114:PHE:HA	2.03	0.41
2:C:20:GLU:CG	2:C:21:ILE:N	2.84	0.41
3:D:1046:GLN:HG2	3:D:1052:THR:HA	2.03	0.41
1:K:124:ASN:OD1	1:K:127:LEU:HB2	2.21	0.41
1:K:112:ARG:NH2	1:K:125:PRO:HB2	2.36	0.41
1:L:86:VAL:O	1:L:86:VAL:HG13	2.21	0.41
1:B:59:GLU:CG	1:B:137:ARG:HH22	2.33	0.41
3:D:528:VAL:CG1	3:D:529:GLN:N	2.76	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:141:GLU:HG2	1:L:141:GLU:H	1.73	0.41
3:D:1408:ILE:HG23	2:M:371:LYS:CA	2.51	0.41
2:C:93:PRO:HA	2:C:117:HIS:CE1	2.56	0.41
3:N:552:ASN:O	3:N:555:LYS:HB2	2.20	0.41
3:N:1340:GLY:O	3:N:1343:ALA:HB3	2.20	0.41
3:D:145:VAL:HG23	3:D:146:PRO:HD2	2.03	0.41
2:C:650:ARG:HG3	2:C:653:ASP:HB2	2.03	0.41
2:M:952:LEU:HD13	2:M:952:LEU:HA	1.97	0.41
2:C:2:GLU:C	2:C:3:ILE:HD13	2.41	0.41
3:N:401:TYR:HB3	3:N:427:VAL:HG13	2.02	0.41
3:D:1131:SER:C	3:D:1132:LEU:HD12	2.41	0.41
2:C:578:VAL:HG13	2:C:671:ASN:HB3	2.02	0.41
3:N:452:ILE:HG23	3:N:452:ILE:O	2.20	0.41
2:M:1004:LYS:HA	2:M:1004:LYS:HD3	1.77	0.41
3:D:998:GLU:HG3	3:D:1247:ALA:HB2	2.02	0.41
2:C:468:ARG:HB2	2:C:485:TYR:HB3	2.02	0.41
3:D:502:PHE:CE2	3:D:1452:ILE:HG23	2.56	0.41
3:D:22:SER:HB2	3:D:92:HIS:HB3	2.03	0.41
5:G:7:DA:C5	5:G:8:DC:C4	3.09	0.41
3:N:1465:ASN:CB	3:N:1473:PRO:HD3	2.50	0.41
1:A:42:ARG:CD	1:B:35:THR:HA	2.39	0.41
3:N:1369:GLU:O	3:N:1370:ILE:C	2.58	0.41
2:M:1091:GLU:O	2:M:1094:ALA:HB3	2.21	0.41
2:M:1089:VAL:HG13	2:M:1099:VAL:HB	2.03	0.41
3:D:625:TYR:OH	3:D:655:PRO:HG2	2.20	0.41
2:M:861:LEU:HD23	2:M:862:PRO:HD2	2.02	0.41
3:N:481:MET:O	3:N:489:ARG:CD	2.69	0.41
3:N:159:ARG:O	3:N:162:ARG:HB3	2.21	0.41
3:N:653:PHE:O	3:N:657:LEU:N	2.45	0.41
3:D:1239:ARG:HD3	3:D:1239:ARG:O	2.21	0.41
1:L:66:SER:O	1:L:75:VAL:HG23	2.21	0.41
2:M:762:LYS:CE	2:M:786:LYS:HG3	2.51	0.41
2:M:310:LEU:HD12	2:M:314:THR:CG2	2.51	0.41
3:D:550:ARG:HD3	3:D:553:ARG:HD2	2.03	0.41
2:M:428:ARG:HH11	2:M:449:ILE:HG22	1.85	0.41
3:N:951:ILE:HG22	3:N:952:ASP:N	2.36	0.41
2:C:764:GLU:OE2	6:H:2:C:H4'	2.21	0.41
3:N:112:ILE:CD1	3:N:116:LEU:HD12	2.49	0.41
3:N:1350:GLU:OE2	3:N:1357:ARG:CZ	2.69	0.41
3:D:1491:THR:O	3:D:1495:ILE:HD13	2.21	0.41
1:B:76:VAL:HA	1:B:79:ILE:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1383:ASP:HB3	3:D:1416:ALA:HB3	2.02	0.41
3:D:576:GLU:OE2	3:D:576:GLU:O	2.39	0.41
3:D:551:ASN:OD1	3:D:555:LYS:HE3	2.21	0.41
3:N:1412:LYS:HE2	3:N:1414:PRO:HG3	2.03	0.41
3:N:1405:GLU:O	3:N:1405:GLU:HG3	2.20	0.41
2:C:1035:MET:SD	5:G:20:DC:C5'	3.04	0.40
7:I:8:DG:O5'	7:I:8:DG:H2'	2.21	0.40
3:N:1209:LEU:HG	3:N:1219:GLU:OE2	2.21	0.40
3:N:133:ILE:O	3:N:153:LEU:N	2.49	0.40
3:N:1389:LEU:O	3:N:1390:LEU:C	2.60	0.40
3:N:1451:ALA:O	3:N:1452:ILE:C	2.60	0.40
2:M:88:LEU:HD22	2:M:814:GLU:HG2	2.03	0.40
2:C:165:LEU:HB3	2:C:265:ARG:HH12	1.84	0.40
2:C:165:LEU:O	2:C:265:ARG:NE	2.54	0.40
3:N:131:LYS:O	3:N:132:TYR:CG	2.75	0.40
2:C:557:ARG:HH11	2:C:560:MET:HG3	1.85	0.40
2:C:677:MET:HA	2:C:678:PRO:HD3	1.86	0.40
2:M:985:GLY:HA2	2:M:986:PRO:HD3	1.91	0.40
2:C:101:ILE:HD12	2:C:107:LEU:HD22	2.02	0.40
2:M:881:ASN:OD1	2:M:884:GLN:CD	2.60	0.40
3:D:800:LYS:HD2	3:D:804:LEU:HD13	2.03	0.40
2:M:334:ARG:HH22	2:M:342:ASP:CB	2.33	0.40
3:N:1059:SER:HB2	3:N:1065:LEU:HA	2.01	0.40
3:D:675:ARG:O	3:D:678:GLU:CD	2.59	0.40
2:C:499:ALA:HA	2:C:532:MET:CE	2.50	0.40
3:D:1488:ASP:OD2	3:D:1491:THR:OG1	2.36	0.40
3:N:565:ILE:H	3:N:565:ILE:CD1	2.29	0.40
2:C:516:ARG:HD2	3:D:1068:LEU:HD22	2.02	0.40
1:K:221:HIS:HA	1:K:224:TYR:CE2	2.56	0.40
3:D:978:TYR:HA	3:D:983:LEU:HD21	2.03	0.40
3:D:983:LEU:H	3:D:983:LEU:HD23	1.85	0.40
2:M:12:VAL:HG13	2:M:13:ILE:N	2.36	0.40
1:L:227:ASN:HA	1:L:228:PRO:HD3	1.71	0.40
2:C:994:ILE:HG22	2:C:995:MET:H	1.86	0.40
2:C:414:GLY:C	2:C:416:GLY:N	2.75	0.40
1:B:40:LEU:O	1:B:44:LEU:HG	2.21	0.40
3:N:494:LYS:O	3:N:494:LYS:HG2	2.21	0.40
2:C:19:THR:HG22	2:C:19:THR:O	2.20	0.40
2:M:572:ILE:H	2:M:572:ILE:HG13	1.57	0.40
3:D:1038:LEU:CD1	3:D:1042:ARG:HH11	2.34	0.40
2:C:1090:LYS:HD2	3:D:90:MET:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1089:ALA:O	3:D:1093:TYR:HB2	2.20	0.40
3:D:109:PRO:O	3:D:110:SER:C	2.58	0.40
3:D:1225:ALA:CB	3:D:1367:HIS:ND1	2.84	0.40
3:D:519:VAL:HA	3:D:544:TYR:OH	2.21	0.40
5:G:22:DA:H2	6:H:12:U:O2	2.04	0.40
3:N:1213:ARG:NH2	4:O:14:ASP:CA	2.83	0.40
3:N:1219:GLU:OE1	4:O:17:TYR:CE2	2.73	0.40
3:N:1112:CYS:HB2	3:N:1195:GLN:CG	2.52	0.40
3:N:1227:GLN:O	3:N:1229:ILE:N	2.53	0.40
2:M:1096:ALA:O	3:N:13:ALA:HB2	2.22	0.40
2:M:863:ASP:O	2:M:865:THR:N	2.53	0.40
3:N:475:LYS:HA	3:N:478:LEU:HD12	2.02	0.40
2:C:1046:ALA:CB	3:D:1472:ILE:CG1	2.99	0.40
3:N:160:GLU:O	3:N:162:ARG:N	2.55	0.40
3:N:691:LEU:C	3:N:693:GLU:N	2.75	0.40
2:M:452:ILE:CD1	2:M:452:ILE:N	2.84	0.40
2:M:306:THR:OG1	2:M:307:LEU:N	2.55	0.40
2:C:1004:LYS:HA	2:C:1004:LYS:HD3	1.72	0.40
1:A:178:ALA:HB3	1:A:198:ARG:CG	2.51	0.40
1:K:76:VAL:HA	1:K:79:ILE:HG12	2.03	0.40
1:L:86:VAL:CG1	1:L:124:ASN:HB2	2.52	0.40
1:K:56:VAL:HG13	1:K:142:VAL:CG1	2.51	0.40
1:B:79:ILE:HA	1:B:82:LEU:HG	2.02	0.40
1:B:75:VAL:O	1:B:79:ILE:HG23	2.21	0.40
2:C:1071:ILE:O	3:D:659:LYS:HD3	2.21	0.40
2:M:221:LEU:HG	2:M:222:MET:H	1.86	0.40
1:L:213:GLN:O	1:L:217:ILE:HD13	2.22	0.40
3:N:473:LEU:HD12	3:N:473:LEU:N	2.36	0.40
1:K:222:LEU:HD23	1:L:219:ARG:HA	2.03	0.40
2:M:411:SER:OG	2:M:412:ALA:N	2.53	0.40
2:M:540:PHE:HB3	2:M:544:THR:CG2	2.50	0.40
2:C:26:TYR:HD2	2:C:121:MET:HB2	1.85	0.40
2:C:1014:SER:CB	2:C:1017:THR:O	2.62	0.40
2:C:399:ASN:CG	2:C:402:SER:HB3	2.36	0.40
3:D:19:ARG:HG3	3:D:19:ARG:NH1	2.36	0.40
3:D:87:ARG:N	3:D:523:ASP:OD2	2.55	0.40
1:A:11:PHE:HB3	1:B:227:ASN:O	2.21	0.40
3:N:1463:LYS:HB2	3:N:1463:LYS:HE3	1.84	0.40
2:M:1084:SER:HA	2:M:1087:VAL:HG12	2.03	0.40
2:C:1008:ARG:NH2	2:C:1011:GLY:C	2.74	0.40
3:N:646:LYS:O	3:N:649:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:937:ASP:N	2:M:940:GLU:OE2	2.52	0.40
2:M:458:TYR:O	2:M:459:ALA:C	2.57	0.40
3:D:1190:SER:C	3:D:1204:CYS:SG	3.00	0.40
3:D:916:TYR:HH	3:D:1145:TYR:HE2	1.68	0.40
3:N:1271:LYS:HD3	3:N:1273:VAL:CG1	2.51	0.40
3:N:1294:VAL:HG23	3:N:1301:LYS:HB3	2.01	0.40
3:N:1305:LEU:HD12	3:N:1311:LEU:HB3	2.03	0.40
2:C:684:PHE:HB3	3:D:740:PHE:HE1	1.84	0.40
2:C:292:ARG:CB	2:C:299:LYS:HG2	2.45	0.40
4:E:4:PRO:O	4:E:5:GLY:C	2.60	0.40
3:D:660:LYS:HB2	3:D:660:LYS:NZ	2.35	0.40
1:L:195:LEU:HD12	1:L:196:THR:H	1.83	0.40
2:M:517:ARG:HB3	2:M:518:LYS:H	1.66	0.40
3:N:30:GLU:HA	3:N:30:GLU:OE1	2.21	0.40
3:N:951:ILE:CG2	3:N:952:ASP:N	2.83	0.40
2:M:473:ARG:HG2	2:M:473:ARG:NH1	2.36	0.40
1:A:134:GLU:C	1:A:136:GLY:N	2.72	0.40
2:C:1086:ARG:HH22	2:C:1113:GLU:HG2	1.86	0.40
1:K:11:PHE:CD1	1:K:25:LEU:HD13	2.55	0.40
1:A:107:LYS:NZ	1:A:113:ASP:OD2	2.49	0.40
3:N:678:GLU:C	3:N:679:ARG:HG3	2.41	0.40
2:C:31:GLN:HG2	2:C:34:VAL:CG2	2.51	0.40
2:M:707:ARG:CD	2:M:824:ARG:CD	2.99	0.40
2:M:826:TYR:N	2:M:826:TYR:CD1	2.89	0.40
2:C:243:ARG:NH1	2:C:243:ARG:HG3	2.35	0.40
2:M:175:GLU:O	2:M:183:SER:HB3	2.21	0.40
2:M:816:LYS:O	2:M:819:VAL:HB	2.21	0.40
3:D:888:GLU:O	3:D:889:ALA:C	2.57	0.40
2:M:640:ARG:HH11	2:M:640:ARG:CG	2.35	0.40
1:K:29:GLU:HB3	1:K:30:ARG:H	1.69	0.40
2:M:663:ASN:HB2	2:M:665:PHE:CE1	2.57	0.40
3:N:753:SER:HB3	4:O:27:ALA:CB	2.51	0.40
1:A:80:LEU:C	1:A:80:LEU:HD23	2.41	0.40
3:D:1042:ARG:HE	3:D:1073:SER:HB2	1.86	0.40
2:C:328:LEU:CG	2:C:433:THR:HB	2.50	0.40
2:C:470:PRO:HB2	2:C:534:VAL:HG21	2.04	0.40
3:D:1435:LEU:HD13	3:D:1457:ASP:CG	2.41	0.40
3:D:619:LEU:CD1	3:D:621:LYS:HZ1	2.31	0.40
5:G:13:DA:C2'	5:G:14:DG:OP2	2.43	0.40
1:A:219:ARG:HA	1:A:222:LEU:HD13	2.04	0.40
2:M:1105:LYS:HZ3	2:M:1107:ASN:HB2	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:54:LEU:HD21	4:E:63:TRP:NE1	2.28	0.40
4:E:68:LEU:CD1	4:E:73:LEU:HD13	2.46	0.40
3:N:812:ALA:O	3:N:816:HIS:CG	2.75	0.40
3:N:480:GLU:OE2	3:N:484:PRO:HG2	2.21	0.40
3:N:111:LYS:HE3	3:N:1449:GLU:CA	2.52	0.40
3:N:111:LYS:HZ2	3:N:1449:GLU:HG3	1.84	0.40
7:Z:9:DT:C2'	7:Z:10:DG:OP2	2.61	0.40
2:C:863:ASP:O	2:C:865:THR:N	2.54	0.40
2:C:214:TYR:OH	2:C:308:ARG:O	2.38	0.40
3:N:568:ARG:HH21	3:N:572:ARG:HA	1.87	0.40
3:D:1339:LYS:HG2	3:D:1343:ALA:HB2	2.03	0.40
4:O:47:LYS:N	4:O:54:LEU:CD1	2.83	0.40
3:D:796:ARG:NH2	3:D:859:ASP:HB2	2.36	0.40
2:M:692:GLU:OE1	2:M:854:PRO:CB	2.68	0.40
2:M:970:GLY:O	2:M:988:VAL:HB	2.21	0.40
3:D:925:GLU:OE1	4:E:5:GLY:N	2.54	0.40
2:M:650:ARG:CD	2:M:653:ASP:OD2	2.70	0.40
2:M:269:LEU:HG	2:M:288:ARG:CG	2.48	0.40
1:A:20:TYR:HD2	1:A:199:ILE:O	2.05	0.40
2:M:172:ILE:HG22	2:M:173:ASP:N	2.36	0.40
3:D:788:GLY:O	3:D:792:ILE:HG22	2.21	0.40
3:D:1156:LEU:HD12	3:D:1177:ALA:HB2	2.04	0.40
2:M:567:GLN:HE22	6:Y:13:C:H5'	1.86	0.40
3:D:1408:ILE:HG23	2:M:371:LYS:N	2.37	0.40
4:O:41:GLU:OE1	4:O:42:PRO:HD3	2.21	0.40
3:N:1401:GLU:OE2	3:N:1402:ALA:N	2.54	0.40
2:C:1092:LEU:HB3	2:C:1099:VAL:CG2	2.52	0.40
2:C:409:ARG:HB3	2:C:454:SER:CB	2.45	0.40
3:D:1093:TYR:CE2	3:D:1096:ARG:NH1	2.90	0.40
3:D:1094:LEU:HD11	3:D:1260:ILE:CD1	2.49	0.40
3:D:16:GLU:CD	3:D:16:GLU:N	2.75	0.40
5:G:6:DT:H2''	5:G:7:DA:C8	2.57	0.40
2:M:394:PHE:CZ	2:M:632:ASN:CG	2.95	0.40
5:X:25:DG:H2'	5:X:26:DC:C6	2.56	0.40
4:E:28:GLN:HA	4:E:31:LEU:HD12	2.03	0.40
4:E:36:LYS:NZ	4:E:45:ARG:HH22	2.18	0.40
3:N:1443:THR:HA	3:N:1446:VAL:CG2	2.52	0.40
5:X:11:DC:O5'	5:X:11:DC:H2'	2.22	0.40
2:M:423:ALA:HB2	7:Z:1:DG:C1'	2.51	0.40
1:K:36:LEU:C	1:K:39:PRO:HD2	2.42	0.40
2:M:435:TYR:C	2:M:437:ARG:H	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:260:LEU:HB3	2:C:291:ALA:HB2	1.98	0.40
2:C:256:TYR:CE1	2:C:293:PHE:HB2	2.57	0.40
2:M:694:LEU:HD22	2:M:699:PHE:CD1	2.57	0.40
2:C:251:ASP:HB3	2:C:252:LYS:HG3	2.03	0.40
2:M:922:PHE:HB3	2:M:964:LYS:HZ1	1.82	0.40
2:C:1040:LEU:HD23	2:C:1049:LEU:HB2	2.02	0.40
2:M:69:LEU:HD12	2:M:97:ARG:CB	2.48	0.40
2:M:162:ILE:CG2	2:M:172:ILE:HD13	2.51	0.40
2:C:31:GLN:NE2	2:C:38:LYS:CB	2.84	0.40
2:C:498:GLN:O	2:C:532:MET:SD	2.80	0.40
2:C:243:ARG:N	2:C:244:PRO:HD3	2.36	0.40
1:B:99:LEU:HB2	1:B:142:VAL:CG2	2.51	0.40
1:K:210:ALA:HA	1:K:213:GLN:OE1	2.21	0.40
3:D:1135:ARG:HD3	3:D:1139:ASP:CB	2.51	0.40
3:N:827:ILE:HG22	3:N:827:ILE:O	2.21	0.40
4:O:41:GLU:O	4:O:42:PRO:O	2.39	0.40
2:C:137:VAL:O	2:C:391:LEU:HD21	2.21	0.40
2:M:497:ALA:HA	2:M:515:ALA:HA	2.04	0.40
3:D:901:GLN:H	3:D:901:GLN:HG2	1.71	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	227/315 (72%)	194 (86%)	24 (11%)	9 (4%)	4	37
1	B	227/315 (72%)	195 (86%)	23 (10%)	9 (4%)	4	37
1	K	227/315 (72%)	193 (85%)	26 (12%)	8 (4%)	4	41
1	L	227/315 (72%)	201 (88%)	17 (8%)	9 (4%)	4	37
2	C	1117/1119 (100%)	893 (80%)	151 (14%)	73 (6%)	1	26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	M	1117/1119 (100%)	889 (80%)	153 (14%)	75 (7%)	1	25
3	D	1143/1524 (75%)	903 (79%)	167 (15%)	73 (6%)	2	26
3	N	1280/1524 (84%)	1011 (79%)	190 (15%)	79 (6%)	2	27
4	E	93/99 (94%)	67 (72%)	15 (16%)	11 (12%)	0	9
4	O	93/99 (94%)	69 (74%)	13 (14%)	11 (12%)	0	9
All	All	5751/6744 (85%)	4615 (80%)	779 (14%)	357 (6%)	2	27

All (357) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	3	ASP
1	A	29	GLU
1	A	118	ALA
1	A	133	GLU
1	A	187	GLY
1	B	187	GLY
2	C	59	LYS
2	C	87	ASP
2	C	129	ILE
2	C	164	PRO
2	C	170	PRO
2	C	223	ASP
2	C	231	PRO
2	C	244	PRO
2	C	253	ALA
2	C	262	ALA
2	C	288	ARG
2	C	290	LEU
2	C	292	ARG
2	C	369	PRO
2	C	434	HIS
2	C	457	ALA
2	C	517	ARG
2	C	627	ARG
2	C	680	ASP
2	C	684	PHE
2	C	698	ASP
2	C	727	PRO
2	C	1005	MET
2	C	1033	GLY

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Mol	Chain	Res	Type
2	C	1106	ASP
3	D	40	GLU
3	D	55	ASP
3	D	120	ALA
3	D	136	ASP
3	D	705	ALA
3	D	725	SER
3	D	735	ALA
3	D	1028	ALA
3	D	1032	PRO
3	D	1237	THR
3	D	1389	LEU
3	D	1446	VAL
4	E	22	VAL
4	E	42	PRO
4	E	43	GLU
4	E	58	PRO
4	E	95	VAL
1	K	3	ASP
1	K	29	GLU
1	K	118	ALA
1	K	133	GLU
1	K	187	GLY
1	L	187	GLY
2	M	44	ILE
2	M	87	ASP
2	M	129	ILE
2	M	164	PRO
2	M	170	PRO
2	M	223	ASP
2	M	231	PRO
2	M	244	PRO
2	M	253	ALA
2	M	262	ALA
2	M	288	ARG
2	M	290	LEU
2	M	369	PRO
2	M	457	ALA
2	M	517	ARG
2	M	680	ASP
2	M	684	PHE
2	M	698	ASP

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Mol	Chain	Res	Type
2	M	727	PRO
2	M	905	ILE
2	M	1005	MET
2	M	1033	GLY
2	M	1096	ALA
2	M	1106	ASP
2	M	1113	GLU
3	N	40	GLU
3	N	43	GLY
3	N	55	ASP
3	N	136	ASP
3	N	167	GLU
3	N	539	ASP
3	N	1265	ALA
3	N	1323	GLN
3	N	1389	LEU
3	N	1408	ILE
3	N	1446	VAL
4	O	22	VAL
4	O	42	PRO
4	O	43	GLU
4	O	58	PRO
2	C	40	GLU
2	C	80	GLN
2	C	138	SER
2	C	144	PRO
2	C	152	PRO
2	C	156	GLY
2	C	178	PRO
2	C	205	GLU
2	C	251	ASP
2	C	261	ILE
2	C	264	PRO
2	C	268	ASP
2	C	325	ILE
2	C	366	SER
2	C	465	GLY
2	C	548	PRO
2	C	593	ALA
2	C	762	LYS
2	C	765	SER
2	C	831	ARG

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Mol	Chain	Res	Type
2	C	864	GLY
2	C	905	ILE
2	C	908	GLY
2	C	1055	LEU
3	D	43	GLY
3	D	98	PRO
3	D	530	VAL
3	D	532	GLY
3	D	564	GLU
3	D	620	GLY
3	D	652	LEU
3	D	803	GLY
3	D	807	ALA
3	D	822	ALA
3	D	924	MET
3	D	1045	MET
3	D	1104	GLU
3	D	1161	GLU
3	D	1197	ARG
3	D	1408	ILE
3	D	1410	GLU
3	D	1441	GLN
3	D	1454	GLY
1	L	125	PRO
2	M	40	GLU
2	M	80	GLN
2	M	138	SER
2	M	144	PRO
2	M	152	PRO
2	M	156	GLY
2	M	178	PRO
2	M	261	ILE
2	M	264	PRO
2	M	292	ARG
2	M	325	ILE
2	M	434	HIS
2	M	465	GLY
2	M	593	ALA
2	M	627	ARG
2	M	740	GLU
2	M	864	GLY
2	M	908	GLY

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Mol	Chain	Res	Type
2	M	984	GLU
2	M	1055	LEU
3	N	31	THR
3	N	59	ALA
3	N	67	ARG
3	N	77	GLY
3	N	110	SER
3	N	117	ASP
3	N	120	ALA
3	N	486	ARG
3	N	620	GLY
3	N	735	ALA
3	N	803	GLY
3	N	807	ALA
3	N	844	ALA
3	N	1104	GLU
3	N	1306	PRO
3	N	1332	PRO
3	N	1385	GLY
3	N	1410	GLU
3	N	1454	GLY
3	N	1482	ARG
1	A	157	GLY
1	B	29	GLU
1	B	118	ALA
1	B	125	PRO
2	C	188	LYS
2	C	278	GLU
2	C	646	GLY
2	C	738	ASP
2	C	740	GLU
2	C	904	PRO
2	C	984	GLU
2	C	1114	GLY
3	D	3	LYS
3	D	31	THR
3	D	119	SER
3	D	137	PRO
3	D	140	ALA
3	D	507	ASN
3	D	522	PRO
3	D	594	PRO

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Mol	Chain	Res	Type
3	D	834	THR
3	D	844	ALA
3	D	869	MET
3	D	1111	ASP
3	D	1125	PRO
3	D	1138	ALA
3	D	1196	THR
3	D	1208	ASP
3	D	1385	GLY
3	D	1407	LEU
4	E	5	GLY
4	E	82	GLU
1	L	3	ASP
1	L	29	GLU
1	L	191	ASP
2	M	10	ARG
2	M	251	ASP
2	M	268	ASP
2	M	363	SER
2	M	366	SER
2	M	462	ASP
2	M	548	PRO
2	M	762	LYS
2	M	767	PRO
3	N	34	TYR
3	N	37	LEU
3	N	96	ALA
3	N	98	PRO
3	N	137	PRO
3	N	160	GLU
3	N	564	GLU
3	N	594	PRO
3	N	696	HIS
3	N	822	ALA
3	N	834	THR
3	N	869	MET
3	N	1067	VAL
3	N	1111	ASP
3	N	1125	PRO
3	N	1161	GLU
3	N	1197	ARG
3	N	1237	THR

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Mol	Chain	Res	Type
3	N	1315	ASP
3	N	1390	LEU
3	N	1407	LEU
4	O	40	LEU
1	B	73	GLU
2	C	18	LEU
2	C	111	ASP
2	C	462	ASP
2	C	1000	MET
2	C	1079	PRO
3	D	37	LEU
3	D	42	ASP
3	D	503	LEU
3	D	808	THR
3	D	1103	HIS
3	D	1207	TYR
3	D	1240	THR
3	D	1348	LEU
3	D	1390	LEU
3	D	1482	ARG
4	E	32	ARG
4	E	40	LEU
4	E	55	PHE
1	K	157	GLY
1	L	118	ALA
2	M	53	PRO
2	M	111	ASP
2	M	188	LYS
2	M	205	GLU
2	M	326	ASP
2	M	646	GLY
2	M	904	PRO
2	M	1079	PRO
2	M	1114	GLY
3	N	119	SER
3	N	397	LYS
3	N	504	ASP
3	N	530	VAL
3	N	751	LEU
3	N	808	THR
3	N	924	MET
3	N	1276	GLU

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Mol	Chain	Res	Type
3	N	1457	ASP
4	O	55	PHE
4	O	82	GLU
1	B	3	ASP
1	B	9	PRO
1	B	47	SER
2	C	39	ARG
2	C	74	GLY
3	D	124	GLU
1	K	224	TYR
1	L	9	PRO
1	L	126	ASP
2	M	18	LEU
2	M	39	ARG
2	M	74	GLY
2	M	141	HIS
2	M	467	ILE
2	M	1027	PHE
3	N	507	ASN
3	N	540	LEU
3	N	705	ALA
3	N	757	ALA
3	N	1138	ALA
3	N	1155	VAL
3	N	1341	PRO
3	N	1355	VAL
4	O	5	GLY
1	A	9	PRO
1	A	224	TYR
2	C	1024	LYS
3	D	108	VAL
3	D	523	ASP
3	D	751	LEU
3	D	920	LEU
3	D	1155	VAL
3	D	1205	TYR
4	E	57	ASP
2	M	377	PRO
2	M	400	PRO
2	M	765	SER
3	N	503	LEU
3	N	522	PRO

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Mol	Chain	Res	Type
3	N	604	THR
3	N	668	PRO
3	N	1327	ARG
4	O	16	LYS
4	O	57	ASP
1	B	10	VAL
2	C	377	PRO
2	C	400	PRO
2	C	812	GLY
3	D	1341	PRO
3	D	1370	ILE
1	K	125	PRO
2	M	812	GLY
3	N	1128	VAL
3	N	1349	VAL
2	C	467	ILE
3	D	146	PRO
3	D	499	VAL
3	N	588	GLY
2	C	263	ASP
3	D	1050	GLY
1	L	10	VAL
2	M	113	VAL
3	N	548	ILE
1	A	125	PRO
2	C	113	VAL
2	C	128	ILE
2	C	424	GLY
3	D	1349	VAL
2	M	424	GLY
3	N	499	VAL
4	O	81	PRO
3	D	668	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	202/273 (74%)	178 (88%)	24 (12%)	6	34
1	B	202/273 (74%)	182 (90%)	20 (10%)	10	42
1	K	202/273 (74%)	182 (90%)	20 (10%)	10	42
1	L	202/273 (74%)	182 (90%)	20 (10%)	10	42
2	C	941/941 (100%)	790 (84%)	151 (16%)	3	22
2	M	941/941 (100%)	794 (84%)	147 (16%)	3	24
3	D	968/1279 (76%)	806 (83%)	162 (17%)	3	20
3	N	1088/1279 (85%)	919 (84%)	169 (16%)	3	24
4	E	84/88 (96%)	70 (83%)	14 (17%)	3	20
4	O	84/88 (96%)	70 (83%)	14 (17%)	3	20
All	All	4914/5708 (86%)	4173 (85%)	741 (15%)	3	25

All (741) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	20	TYR
1	A	26	GLU
1	A	54	THR
1	A	65	PHE
1	A	69	PRO
1	A	96	THR
1	A	100	LEU
1	A	101	LEU
1	A	104	GLU
1	A	113	ASP
1	A	123	MET
1	A	126	ASP
1	A	139	ASN
1	A	141	GLU
1	A	143	ARG
1	A	154	GLU
1	A	168	ASP
1	A	175	ARG
1	A	189	ARG
1	A	193	ASP
1	A	197	LEU
1	A	206	THR
1	A	219	ARG
1	A	226	SER

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Mol	Chain	Res	Type
1	B	3	ASP
1	B	20	TYR
1	B	62	LEU
1	B	73	GLU
1	B	81	ASN
1	B	96	THR
1	B	123	MET
1	B	124	ASN
1	B	140	MET
1	B	159	LYS
1	B	161	ARG
1	B	163	ASN
1	B	176	ARG
1	B	179	PHE
1	B	189	ARG
1	B	193	ASP
1	B	201	THR
1	B	206	THR
1	B	215	VAL
1	B	226	SER
2	C	5	ARG
2	C	30	LEU
2	C	33	ASP
2	C	34	VAL
2	C	39	ARG
2	C	48	PHE
2	C	51	THR
2	C	67	ASP
2	C	71	TYR
2	C	72	ARG
2	C	75	GLU
2	C	80	GLN
2	C	81	ASP
2	C	87	ASP
2	C	88	LEU
2	C	91	GLN
2	C	94	LEU
2	C	95	TYR
2	C	98	LEU
2	C	103	LYS
2	C	104	ASP
2	C	115	LEU

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Mol	Chain	Res	Type
2	C	117	HIS
2	C	129	ILE
2	C	133	ASP
2	C	141	HIS
2	C	142	ARG
2	C	158	TYR
2	C	170	PRO
2	C	173	ASP
2	C	183	SER
2	C	188	LYS
2	C	190	LYS
2	C	191	PHE
2	C	196	LEU
2	C	198	ARG
2	C	205	GLU
2	C	209	ARG
2	C	237	ARG
2	C	238	LEU
2	C	239	PHE
2	C	243	ARG
2	C	252	LYS
2	C	266	ARG
2	C	267	TYR
2	C	268	ASP
2	C	274	ARG
2	C	275	TYR
2	C	281	LEU
2	C	285	LEU
2	C	286	SER
2	C	289	THR
2	C	290	LEU
2	C	292	ARG
2	C	293	PHE
2	C	297	GLU
2	C	298	PHE
2	C	306	THR
2	C	308	ARG
2	C	309	TYR
2	C	313	LEU
2	C	321	GLU
2	C	322	VAL
2	C	327	HIS

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Mol	Chain	Res	Type
2	C	330	ASN
2	C	345	ARG
2	C	359	MET
2	C	365	ASP
2	C	367	LEU
2	C	376	ARG
2	C	392	SER
2	C	398	THR
2	C	400	PRO
2	C	404	LEU
2	C	419	THR
2	C	422	ARG
2	C	425	PHE
2	C	433	THR
2	C	443	THR
2	C	453	THR
2	C	458	TYR
2	C	469	THR
2	C	481	ASP
2	C	486	MET
2	C	492	ASP
2	C	498	GLN
2	C	500	ASN
2	C	503	LEU
2	C	506	ASN
2	C	533	ASP
2	C	537	LYS
2	C	541	SER
2	C	548	PRO
2	C	557	ARG
2	C	578	VAL
2	C	584	GLU
2	C	599	GLU
2	C	606	VAL
2	C	617	ASP
2	C	620	LEU
2	C	632	ASN
2	C	635	THR
2	C	640	ARG
2	C	645	VAL
2	C	654	LEU
2	C	668	LEU

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Mol	Chain	Res	Type
2	C	680	ASP
2	C	693	GLU
2	C	695	LEU
2	C	699	PHE
2	C	701	THR
2	C	714	ASP
2	C	727	PRO
2	C	728	HIS
2	C	738	ASP
2	C	739	GLU
2	C	766	GLU
2	C	780	GLU
2	C	784	ASP
2	C	785	VAL
2	C	796	GLU
2	C	805	ARG
2	C	837	ASP
2	C	839	LEU
2	C	841	ASN
2	C	856	GLU
2	C	858	MET
2	C	862	PRO
2	C	863	ASP
2	C	868	ASP
2	C	884	GLN
2	C	907	ASP
2	C	918	LEU
2	C	938	LYS
2	C	939	ARG
2	C	950	LEU
2	C	958	THR
2	C	963	LEU
2	C	988	VAL
2	C	999	HIS
2	C	1002	GLU
2	C	1003	ASP
2	C	1005	MET
2	C	1016	ILE
2	C	1026	GLN
2	C	1035	MET
2	C	1050	GLN
2	C	1074	GLU

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Mol	Chain	Res	Type
2	C	1090	LYS
2	C	1105	LYS
2	C	1115	LEU
3	D	4	GLU
3	D	6	ARG
3	D	21	TRP
3	D	29	PRO
3	D	41	ARG
3	D	47	GLU
3	D	60	CYS
3	D	64	LYS
3	D	68	PHE
3	D	74	GLU
3	D	75	ARG
3	D	80	VAL
3	D	87	ARG
3	D	95	LEU
3	D	101	HIS
3	D	108	VAL
3	D	116	LEU
3	D	123	LEU
3	D	124	GLU
3	D	127	LEU
3	D	128	TYR
3	D	130	SER
3	D	135	LEU
3	D	142	LEU
3	D	149	LYS
3	D	157	GLU
3	D	162	ARG
3	D	163	TYR
3	D	455	ARG
3	D	456	MET
3	D	465	LEU
3	D	485	SER
3	D	493	ARG
3	D	504	ASP
3	D	507	ASN
3	D	512	MET
3	D	525	ARG
3	D	531	ASP
3	D	537	THR

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Mol	Chain	Res	Type
3	D	538	SER
3	D	544	TYR
3	D	550	ARG
3	D	565	ILE
3	D	594	PRO
3	D	605	ASP
3	D	613	ARG
3	D	619	LEU
3	D	624	ASP
3	D	636	GLN
3	D	639	LEU
3	D	641	GLN
3	D	651	GLU
3	D	652	LEU
3	D	660	LYS
3	D	676	MET
3	D	686	GLU
3	D	688	TRP
3	D	701	LEU
3	D	704	ARG
3	D	709	HIS
3	D	734	GLU
3	D	736	PHE
3	D	743	ASP
3	D	749	VAL
3	D	754	PHE
3	D	758	GLU
3	D	763	MET
3	D	764	LEU
3	D	783	ARG
3	D	784	ASP
3	D	792	ILE
3	D	800	LYS
3	D	805	GLU
3	D	813	LEU
3	D	863	VAL
3	D	879	ARG
3	D	880	ILE
3	D	888	GLU
3	D	892	ASP
3	D	897	TRP
3	D	899	LEU

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Mol	Chain	Res	Type
3	D	900	ILE
3	D	902	LEU
3	D	907	GLU
3	D	922	LEU
3	D	925	GLU
3	D	935	LYS
3	D	937	TYR
3	D	940	THR
3	D	941	PHE
3	D	942	SER
3	D	951	ILE
3	D	959	GLU
3	D	964	LEU
3	D	978	TYR
3	D	983	LEU
3	D	985	ASP
3	D	988	ARG
3	D	991	GLN
3	D	1001	GLU
3	D	1005	GLN
3	D	1008	PHE
3	D	1019	PRO
3	D	1026	SER
3	D	1036	ARG
3	D	1038	LEU
3	D	1039	CYS
3	D	1041	LEU
3	D	1042	ARG
3	D	1044	LEU
3	D	1052	THR
3	D	1062	ARG
3	D	1068	LEU
3	D	1087	ARG
3	D	1088	THR
3	D	1095	THR
3	D	1100	ASP
3	D	1108	ARG
3	D	1112	CYS
3	D	1119	SER
3	D	1130	ARG
3	D	1133	ARG
3	D	1149	LEU

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Mol	Chain	Res	Type
3	D	1151	ARG
3	D	1161	GLU
3	D	1166	LEU
3	D	1169	ASP
3	D	1179	GLU
3	D	1189	ARG
3	D	1196	THR
3	D	1197	ARG
3	D	1204	CYS
3	D	1207	TYR
3	D	1209	LEU
3	D	1231	GLU
3	D	1236	LEU
3	D	1237	THR
3	D	1238	MET
3	D	1239	ARG
3	D	1240	THR
3	D	1269	LYS
3	D	1382	THR
3	D	1389	LEU
3	D	1391	GLU
3	D	1396	GLU
3	D	1399	ASP
3	D	1431	THR
3	D	1432	LYS
3	D	1436	SER
3	D	1439	SER
3	D	1441	GLN
3	D	1442	ASN
3	D	1447	LEU
3	D	1462	LEU
3	D	1464	GLU
3	D	1465	ASN
3	D	1472	ILE
3	D	1485	GLN
3	D	1488	ASP
3	D	1489	GLN
3	D	1496	GLU
3	D	1501	GLU
4	E	10	PHE
4	E	14	ASP
4	E	35	PHE

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Mol	Chain	Res	Type
4	E	43	GLU
4	E	51	LEU
4	E	57	ASP
4	E	62	THR
4	E	68	LEU
4	E	69	LEU
4	E	70	THR
4	E	77	GLU
4	E	78	ASN
4	E	83	ASP
4	E	89	MET
1	K	5	LYS
1	K	16	GLN
1	K	18	ARG
1	K	22	GLU
1	K	26	GLU
1	K	54	THR
1	K	55	SER
1	K	60	ASP
1	K	65	PHE
1	K	101	LEU
1	K	112	ARG
1	K	123	MET
1	K	143	ARG
1	K	155	LYS
1	K	168	ASP
1	K	175	ARG
1	K	189	ARG
1	K	193	ASP
1	K	198	ARG
1	K	219	ARG
1	L	5	LYS
1	L	7	LYS
1	L	20	TYR
1	L	25	LEU
1	L	62	LEU
1	L	73	GLU
1	L	119	ASP
1	L	123	MET
1	L	124	ASN
1	L	126	ASP
1	L	137	ARG

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Mol	Chain	Res	Type
1	L	141	GLU
1	L	145	ASP
1	L	159	LYS
1	L	161	ARG
1	L	163	ASN
1	L	179	PHE
1	L	184	THR
1	L	186	LEU
1	L	206	THR
2	M	9	ILE
2	M	10	ARG
2	M	30	LEU
2	M	34	VAL
2	M	48	PHE
2	M	49	ARG
2	M	52	PHE
2	M	56	GLU
2	M	75	GLU
2	M	88	LEU
2	M	89	THR
2	M	91	GLN
2	M	95	TYR
2	M	98	LEU
2	M	104	ASP
2	M	110	GLU
2	M	112	GLU
2	M	115	LEU
2	M	130	ASN
2	M	141	HIS
2	M	144	PRO
2	M	158	TYR
2	M	163	ILE
2	M	170	PRO
2	M	173	ASP
2	M	178	PRO
2	M	179	ASN
2	M	186	VAL
2	M	190	LYS
2	M	191	PHE
2	M	198	ARG
2	M	205	GLU
2	M	210	GLU

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Mol	Chain	Res	Type
2	M	221	LEU
2	M	226	VAL
2	M	237	ARG
2	M	238	LEU
2	M	252	LYS
2	M	261	ILE
2	M	266	ARG
2	M	267	TYR
2	M	268	ASP
2	M	274	ARG
2	M	275	TYR
2	M	285	LEU
2	M	286	SER
2	M	289	THR
2	M	293	PHE
2	M	297	GLU
2	M	298	PHE
2	M	308	ARG
2	M	309	TYR
2	M	310	LEU
2	M	328	LEU
2	M	358	ARG
2	M	359	MET
2	M	360	LEU
2	M	367	LEU
2	M	376	ARG
2	M	379	GLU
2	M	383	ARG
2	M	390	GLN
2	M	396	ASP
2	M	421	GLU
2	M	422	ARG
2	M	433	THR
2	M	455	LEU
2	M	463	GLU
2	M	490	GLU
2	M	491	GLU
2	M	503	LEU
2	M	517	ARG
2	M	528	GLU
2	M	533	ASP
2	M	554	ASP

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Mol	Chain	Res	Type
2	M	557	ARG
2	M	572	ILE
2	M	578	VAL
2	M	579	VAL
2	M	585	GLU
2	M	586	ARG
2	M	588	VAL
2	M	595	LEU
2	M	632	ASN
2	M	633	GLN
2	M	635	THR
2	M	640	ARG
2	M	645	VAL
2	M	668	LEU
2	M	677	MET
2	M	679	PHE
2	M	683	ASN
2	M	688	ILE
2	M	693	GLU
2	M	699	PHE
2	M	703	ILE
2	M	719	PRO
2	M	725	ASP
2	M	730	SER
2	M	738	ASP
2	M	749	VAL
2	M	766	GLU
2	M	780	GLU
2	M	781	LYS
2	M	784	ASP
2	M	785	VAL
2	M	787	ASP
2	M	791	ARG
2	M	805	ARG
2	M	824	ARG
2	M	834	GLN
2	M	837	ASP
2	M	856	GLU
2	M	862	PRO
2	M	863	ASP
2	M	868	ASP
2	M	878	SER

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Mol	Chain	Res	Type
2	M	881	ASN
2	M	884	GLN
2	M	904	PRO
2	M	923	GLU
2	M	929	ARG
2	M	937	ASP
2	M	938	LYS
2	M	939	ARG
2	M	942	GLU
2	M	950	LEU
2	M	958	THR
2	M	960	GLU
2	M	963	LEU
2	M	988	VAL
2	M	999	HIS
2	M	1003	ASP
2	M	1005	MET
2	M	1006	HIS
2	M	1016	ILE
2	M	1021	LEU
2	M	1035	MET
2	M	1052	MET
2	M	1053	LEU
2	M	1070	ILE
2	M	1079	PRO
2	M	1104	GLU
2	M	1105	LYS
2	M	1110	ASP
2	M	1111	ILE
2	M	1115	LEU
3	N	6	ARG
3	N	12	LEU
3	N	21	TRP
3	N	34	TYR
3	N	41	ARG
3	N	56	TYR
3	N	60	CYS
3	N	64	LYS
3	N	67	ARG
3	N	68	PHE
3	N	69	GLU
3	N	74	GLU

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Mol	Chain	Res	Type
3	N	76	CYS
3	N	80	VAL
3	N	82	LYS
3	N	85	VAL
3	N	87	ARG
3	N	103	TRP
3	N	112	ILE
3	N	116	LEU
3	N	118	LEU
3	N	124	GLU
3	N	127	LEU
3	N	128	TYR
3	N	135	LEU
3	N	145	VAL
3	N	148	GLU
3	N	149	LYS
3	N	150	ARG
3	N	156	GLU
3	N	157	GLU
3	N	161	LEU
3	N	163	TYR
3	N	197	SER
3	N	199	LEU
3	N	405	ASP
3	N	434	ARG
3	N	438	ASP
3	N	445	ARG
3	N	453	ASP
3	N	455	ARG
3	N	456	MET
3	N	465	LEU
3	N	467	GLU
3	N	470	LEU
3	N	476	GLU
3	N	481	MET
3	N	493	ARG
3	N	512	MET
3	N	525	ARG
3	N	537	THR
3	N	539	ASP
3	N	547	LEU
3	N	550	ARG

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Mol	Chain	Res	Type
3	N	581	LEU
3	N	594	PRO
3	N	600	LEU
3	N	611	GLN
3	N	619	LEU
3	N	639	LEU
3	N	641	GLN
3	N	651	GLU
3	N	652	LEU
3	N	660	LYS
3	N	666	ILE
3	N	682	ASP
3	N	688	TRP
3	N	701	LEU
3	N	707	THR
3	N	709	HIS
3	N	710	ARG
3	N	727	GLN
3	N	736	PHE
3	N	743	ASP
3	N	749	VAL
3	N	758	GLU
3	N	763	MET
3	N	783	ARG
3	N	805	GLU
3	N	808	THR
3	N	817	GLU
3	N	833	GLU
3	N	838	ARG
3	N	855	HIS
3	N	863	VAL
3	N	876	SER
3	N	880	ILE
3	N	881	LEU
3	N	888	GLU
3	N	891	GLU
3	N	892	ASP
3	N	897	TRP
3	N	902	LEU
3	N	914	LEU
3	N	922	LEU
3	N	925	GLU

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Mol	Chain	Res	Type
3	N	939	PHE
3	N	941	PHE
3	N	951	ILE
3	N	959	GLU
3	N	975	GLU
3	N	982	PHE
3	N	990	ASP
3	N	991	GLN
3	N	1029	ARG
3	N	1031	ASN
3	N	1062	ARG
3	N	1087	ARG
3	N	1090	ASP
3	N	1101	VAL
3	N	1108	ARG
3	N	1114	THR
3	N	1115	THR
3	N	1124	GLN
3	N	1130	ARG
3	N	1135	ARG
3	N	1149	LEU
3	N	1151	ARG
3	N	1159	ARG
3	N	1160	LEU
3	N	1161	GLU
3	N	1166	LEU
3	N	1183	ILE
3	N	1189	ARG
3	N	1197	ARG
3	N	1207	TYR
3	N	1210	SER
3	N	1237	THR
3	N	1238	MET
3	N	1239	ARG
3	N	1262	LEU
3	N	1267	ARG
3	N	1275	SER
3	N	1282	ARG
3	N	1285	GLU
3	N	1287	GLU
3	N	1288	GLU
3	N	1291	SER

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Mol	Chain	Res	Type
3	N	1297	GLU
3	N	1299	PHE
3	N	1300	SER
3	N	1305	LEU
3	N	1311	LEU
3	N	1315	ASP
3	N	1317	ASP
3	N	1319	VAL
3	N	1320	GLU
3	N	1326	THR
3	N	1337	GLU
3	N	1344	VAL
3	N	1348	LEU
3	N	1373	ARG
3	N	1376	MET
3	N	1383	ASP
3	N	1386	ASP
3	N	1389	LEU
3	N	1391	GLU
3	N	1412	LYS
3	N	1422	MET
3	N	1431	THR
3	N	1432	LYS
3	N	1434	TRP
3	N	1435	LEU
3	N	1441	GLN
3	N	1465	ASN
3	N	1472	ILE
3	N	1485	GLN
3	N	1488	ASP
3	N	1496	GLU
4	O	37	ASN
4	O	38	THR
4	O	46	PRO
4	O	48	MET
4	O	51	LEU
4	O	54	LEU
4	O	56	ASP
4	O	57	ASP
4	O	58	PRO
4	O	70	THR
4	O	72	ARG

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Mol	Chain	Res	Type
4	O	77	GLU
4	O	81	PRO
4	O	83	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
2	C	31	GLN
2	C	393	GLN
3	D	714	GLN
3	D	1227	GLN
2	M	393	GLN
2	M	406	HIS
2	M	567	GLN
2	M	841	ASN
2	M	889	HIS
3	N	714	GLN
3	N	1031	ASN
3	N	1034	GLN
4	O	37	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
6	H	15/16 (93%)	5 (33%)	1 (6%)
6	Y	14/16 (87%)	3 (21%)	1 (7%)
All	All	29/32 (90%)	8 (27%)	2 (6%)

All (8) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
6	H	4	G
6	H	5	C
6	H	6	C
6	H	15	C
6	H	16	A
6	Y	3	A
6	Y	4	G
6	Y	6	C

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
6	H	5	C
6	Y	5	C

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 4 ligands modelled in this entry, 4 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 ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	229/315 (72%)	-0.75	1 (0%) 93 90	154, 243, 347, 433	0
1	B	229/315 (72%)	-0.46	9 (3%) 43 34	202, 343, 460, 525	0
1	K	229/315 (72%)	-0.57	4 (1%) 73 63	157, 255, 375, 500	0
1	L	229/315 (72%)	-0.46	4 (1%) 73 63	193, 363, 452, 538	0
2	C	1119/1119 (100%)	-0.74	8 (0%) 89 84	12, 213, 336, 454	0
2	M	1119/1119 (100%)	-0.71	8 (0%) 89 84	60, 238, 426, 549	0
3	D	1151/1524 (75%)	-0.72	15 (1%) 79 71	8, 205, 382, 548	0
3	N	1288/1524 (84%)	-0.57	40 (3%) 52 41	81, 249, 452, 545	0
4	E	95/99 (95%)	-0.51	3 (3%) 51 40	156, 217, 337, 395	0
4	O	95/99 (95%)	-0.60	3 (3%) 51 40	205, 297, 426, 451	0
5	G	27/28 (96%)	-0.52	0 100 100	152, 210, 372, 381	0
5	X	27/28 (96%)	-0.44	0 100 100	238, 279, 353, 374	0
6	H	16/16 (100%)	0.32	1 (6%) 23 16	97, 189, 363, 385	0
6	Y	15/16 (93%)	-0.18	0 100 100	208, 249, 351, 378	0
7	I	17/21 (80%)	-0.37	0 100 100	215, 276, 418, 428	0
7	Z	17/21 (80%)	-0.45	0 100 100	264, 305, 348, 352	0
All	All	5902/6874 (85%)	-0.65	96 (1%) 74 65	8, 240, 416, 549	0

All (96) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	D	140	ALA	13.5
3	N	175	VAL	13.0
3	D	141	ILE	10.1
1	B	3	ASP	9.1
1	L	68	ILE	8.0

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Mol	Chain	Res	Type	RSRZ
2	M	193	LEU	8.0
3	N	174	GLY	7.7
3	N	425	GLY	6.9
3	D	139	GLY	6.8
1	B	2	LEU	6.5
3	N	140	ALA	6.5
3	D	142	LEU	6.3
2	M	194	VAL	6.3
3	N	395	VAL	6.0
1	B	1	MET	5.5
3	N	407	VAL	5.4
3	N	176	ASP	5.4
3	N	451	ASP	5.3
3	N	409	VAL	5.2
3	N	802	ALA	4.6
2	C	1025	ALA	4.6
1	K	1	MET	4.4
2	C	180	GLY	4.4
2	M	417	GLY	4.2
3	N	393	ILE	4.2
3	N	408	GLU	4.1
1	B	4	SER	4.1
4	O	91	ARG	4.1
1	K	3	ASP	4.1
1	L	69	PRO	4.1
3	N	391	ALA	3.9
3	N	394	LEU	3.9
6	H	1	C	3.9
4	E	91	ARG	3.9
3	N	1287	GLU	3.8
3	N	399	ARG	3.7
3	N	420	VAL	3.6
4	E	94	PRO	3.5
4	E	96	GLU	3.5
3	N	392	SER	3.4
1	K	2	LEU	3.3
3	N	1316	GLY	3.3
3	N	426	LYS	3.3
3	N	801	GLY	3.2
2	M	765	SER	3.2
3	D	595	GLY	3.2
3	D	653	PHE	3.2

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Mol	Chain	Res	Type	RSRZ
1	L	67	THR	3.1
3	D	138	LYS	3.1
2	M	416	GLY	3.0
3	N	406	ASP	3.0
3	N	173	PRO	3.0
2	C	1119	ARG	3.0
1	L	99	LEU	3.0
3	D	146	PRO	2.9
1	B	87	VAL	2.9
3	D	161	LEU	2.8
3	N	628	ARG	2.7
3	N	985	ASP	2.7
2	M	202	TYR	2.6
3	D	594	PRO	2.6
2	C	179	ASN	2.6
2	C	114	PHE	2.5
2	M	176	VAL	2.5
1	K	188	GLN	2.5
3	D	137	PRO	2.5
3	N	1489	GLN	2.4
1	B	5	LYS	2.4
3	N	177	ALA	2.4
4	O	88	GLU	2.4
3	N	428	LYS	2.3
3	N	418	GLY	2.3
2	M	174	LEU	2.3
3	N	745	MET	2.3
3	N	1310	ARG	2.3
1	A	187	GLY	2.3
4	O	92	LEU	2.3
2	C	105	THR	2.2
3	N	206	ARG	2.2
3	N	450	TYR	2.2
1	B	7	LYS	2.2
3	D	802	ALA	2.2
1	B	124	ASN	2.1
3	D	147	VAL	2.1
3	N	421	LEU	2.1
3	D	1362	LYS	2.1
3	N	1339	LYS	2.1
3	N	1491	THR	2.1
1	B	18	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
3	N	666	ILE	2.1
2	C	222	MET	2.1
3	N	405	ASP	2.1
3	N	1327	ARG	2.0
2	C	512	ARG	2.0
3	D	666	ILE	2.0
3	N	410	SER	2.0

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
8	ZN	N	1602	1/1	0.98	0.11	-0.53	72,72,72,72	0
8	ZN	N	1601	1/1	0.97	0.13	-1.18	72,72,72,72	0
8	ZN	D	1602	1/1	0.99	0.14	-1.22	72,72,72,72	0
8	ZN	D	1601	1/1	0.98	0.05	-1.32	72,72,72,72	0

6.5 Other polymers [i](#)

There are no such residues in this entry.