



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 01:47 PM BST

PDB ID : 3J2N
EMDB ID: : EMD-1086
Title : The X-ray structure of the gp15 hexamer and the model of the gp18 protein fitted into the cryo-EM reconstruction of the contracted T4 tail
Authors : Fokine, A.; Zhang, Z.; Kanamaru, S.; Bowman, V.D.; Aksyuk, A.; Arisaka, F.; Rao, V.B.; Rossmann M.G.
Deposited on : 2012-11-10
Resolution : 16.00 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.

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

A user guide is available at

<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

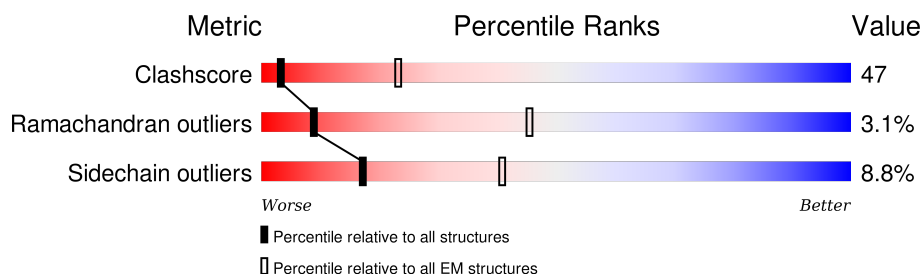
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 16.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	272	58% 16% • 22%
1	B	272	60% 15% • 22%
1	C	272	58% 16% • 22%
1	D	272	61% 13% • 22%
1	E	272	60% 14% • 22%
1	F	272	60% 14% • 22%
2	U	659	34% 49% 9% 8%
2	V	659	33% 50% 9% 8%
2	W	659	33% 50% 9% 8%

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Mol	Chain	Length	Quality of chain
2	X	659	<div><div></div><div>34%49%9%8%</div></div>
2	Y	659	<div><div></div><div>34%50%9%8%</div></div>
2	Z	659	<div><div></div><div>33%50%9%8%</div></div>

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 38334 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Tail connector protein Gp15.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		
1	B	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		
1	C	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		
1	D	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		
1	E	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		
1	F	211	Total	C	N	O	S	0	0
			1742	1123	283	328	8		

- Molecule 2 is a protein called Tail sheath protein Gp18.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	U	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		
2	V	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		
2	W	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		
2	X	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		
2	Y	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		
2	Z	609	Total	C	N	O	S	0	0
			4647	2929	785	923	10		

There are 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
U	100	GLU	ASP	SEE REMARK 999	UNP P13332
U	148	ALA	GLY	SEE REMARK 999	UNP P13332

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Chain	Residue	Modelled	Actual	Comment	Reference
U	150	ILE	ASN	SEE REMARK 999	UNP P13332
U	151	ILE	TYR	SEE REMARK 999	UNP P13332
U	301	GLY	GLU	SEE REMARK 999	UNP P13332
U	399	VAL	ALA	SEE REMARK 999	UNP P13332
U	454	TYR	HIS	SEE REMARK 999	UNP P13332
U	510	PRO	ARG	ENGINEERED MUTATION	UNP P13332
V	100	GLU	ASP	SEE REMARK 999	UNP P13332
V	148	ALA	GLY	SEE REMARK 999	UNP P13332
V	150	ILE	ASN	SEE REMARK 999	UNP P13332
V	151	ILE	TYR	SEE REMARK 999	UNP P13332
V	301	GLY	GLU	SEE REMARK 999	UNP P13332
V	399	VAL	ALA	SEE REMARK 999	UNP P13332
V	454	TYR	HIS	SEE REMARK 999	UNP P13332
V	510	PRO	ARG	ENGINEERED MUTATION	UNP P13332
W	100	GLU	ASP	SEE REMARK 999	UNP P13332
W	148	ALA	GLY	SEE REMARK 999	UNP P13332
W	150	ILE	ASN	SEE REMARK 999	UNP P13332
W	151	ILE	TYR	SEE REMARK 999	UNP P13332
W	301	GLY	GLU	SEE REMARK 999	UNP P13332
W	399	VAL	ALA	SEE REMARK 999	UNP P13332
W	454	TYR	HIS	SEE REMARK 999	UNP P13332
W	510	PRO	ARG	ENGINEERED MUTATION	UNP P13332
X	100	GLU	ASP	SEE REMARK 999	UNP P13332
X	148	ALA	GLY	SEE REMARK 999	UNP P13332
X	150	ILE	ASN	SEE REMARK 999	UNP P13332
X	151	ILE	TYR	SEE REMARK 999	UNP P13332
X	301	GLY	GLU	SEE REMARK 999	UNP P13332
X	399	VAL	ALA	SEE REMARK 999	UNP P13332
X	454	TYR	HIS	SEE REMARK 999	UNP P13332
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Z	150	ILE	ASN	SEE REMARK 999	UNP P13332
Z	151	ILE	TYR	SEE REMARK 999	UNP P13332

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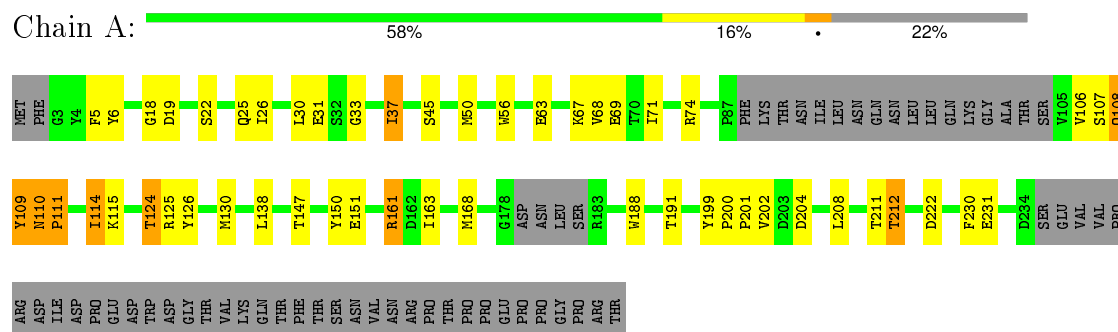
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Chain	Residue	Modelled	Actual	Comment	Reference
Z	301	GLY	GLU	SEE REMARK 999	UNP P13332
Z	399	VAL	ALA	SEE REMARK 999	UNP P13332
Z	454	TYR	HIS	SEE REMARK 999	UNP P13332
Z	510	PRO	ARG	ENGINEERED MUTATION	UNP P13332

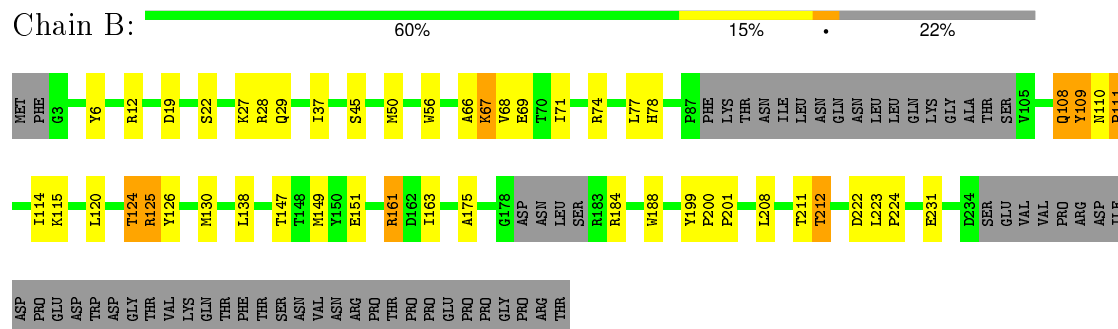
3 Residue-property plots [i](#)

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

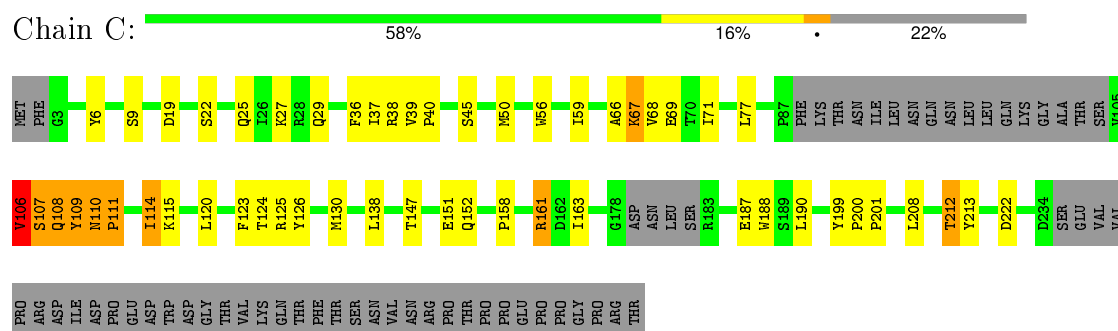
- Molecule 1: Tail connector protein Gp15



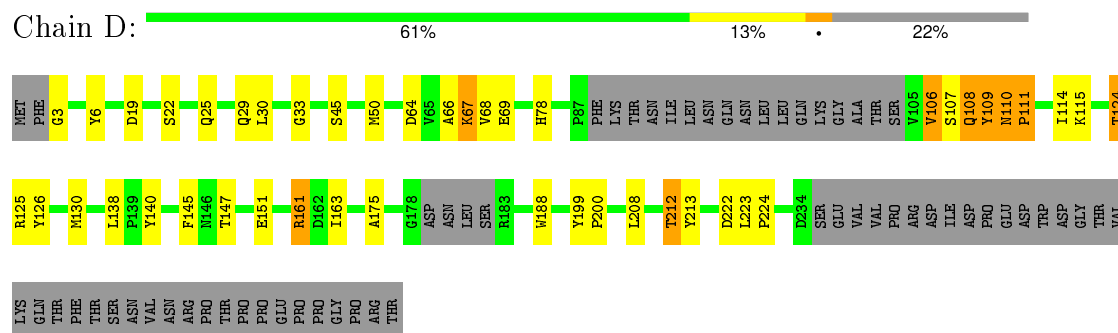
- Molecule 1: Tail connector protein Gp15



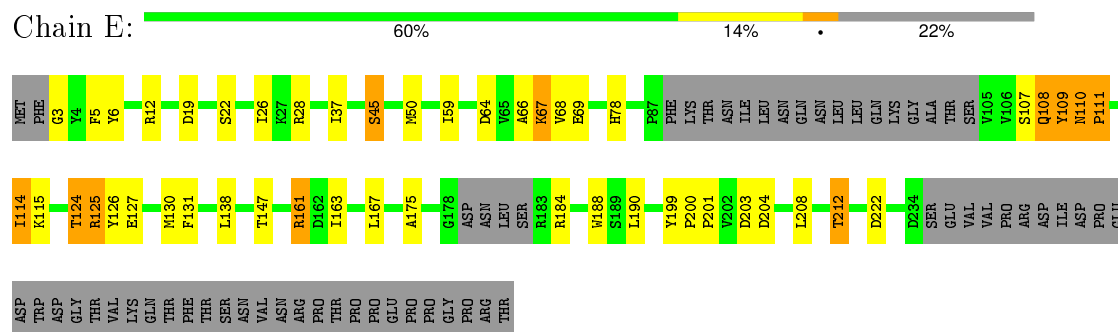
- Molecule 1: Tail connector protein Gp15



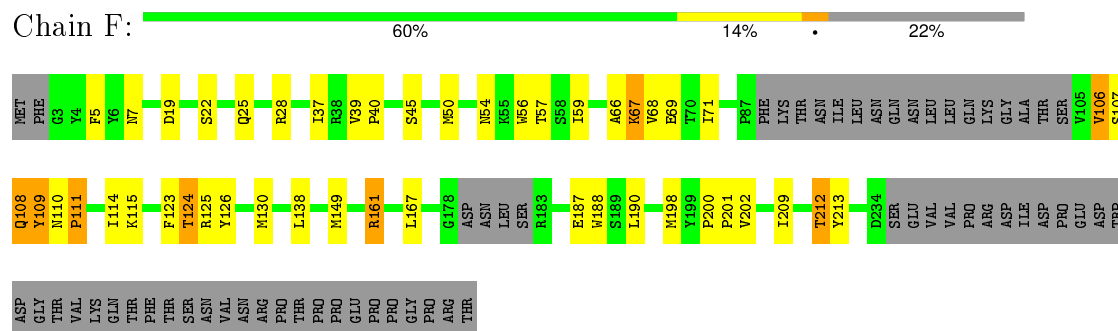
- Molecule 1: Tail connector protein Gp15



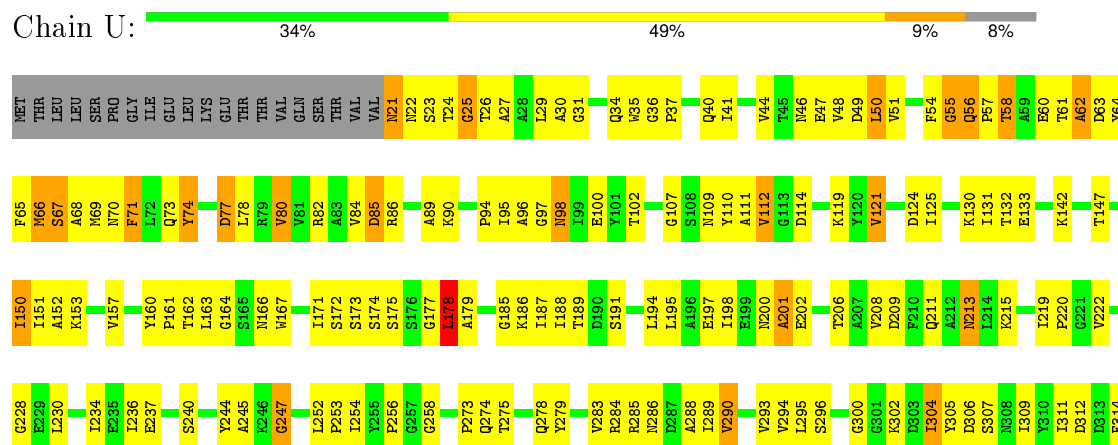
• Molecule 1: Tail connector protein Gp15



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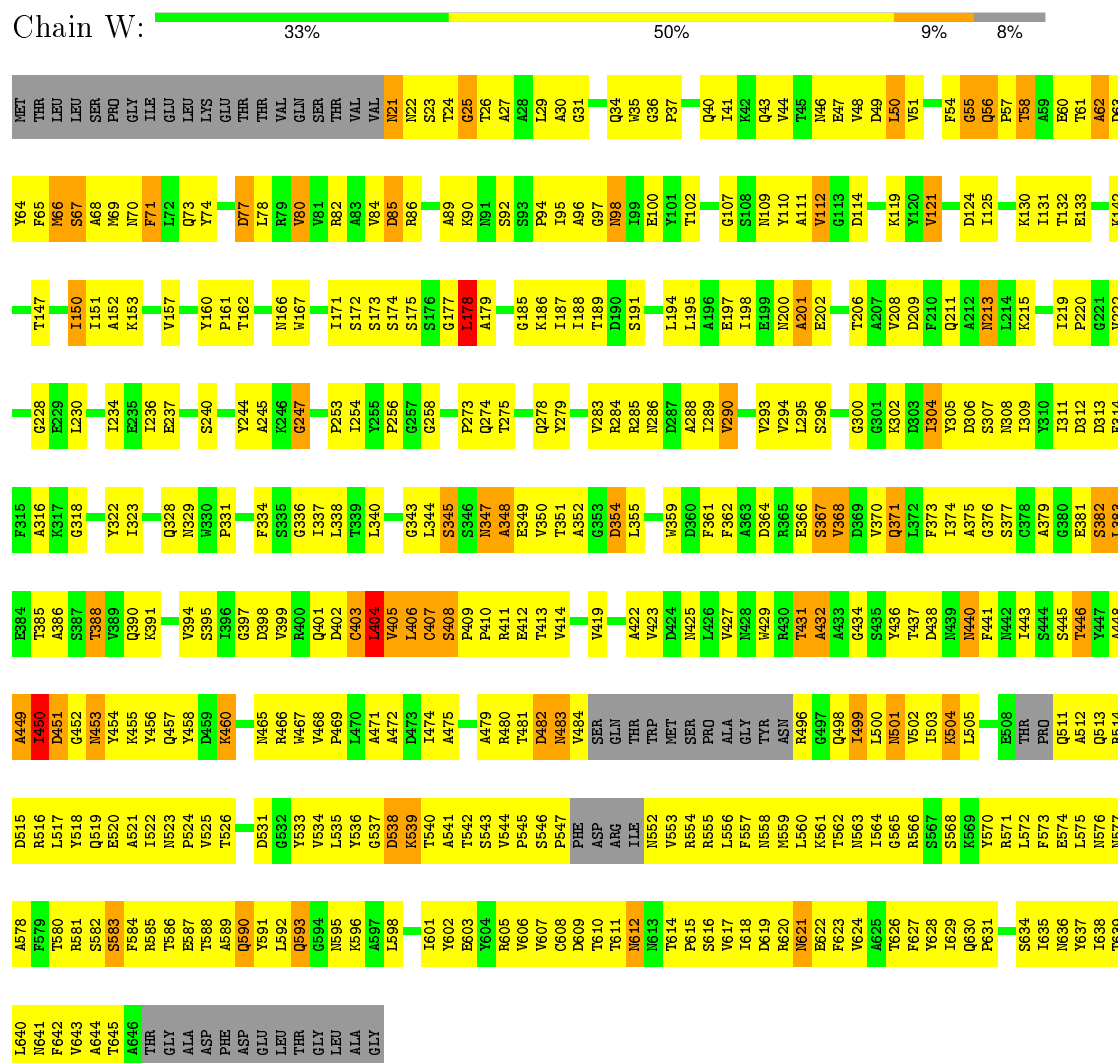


• Molecule 2: Tail sheath protein Gp18

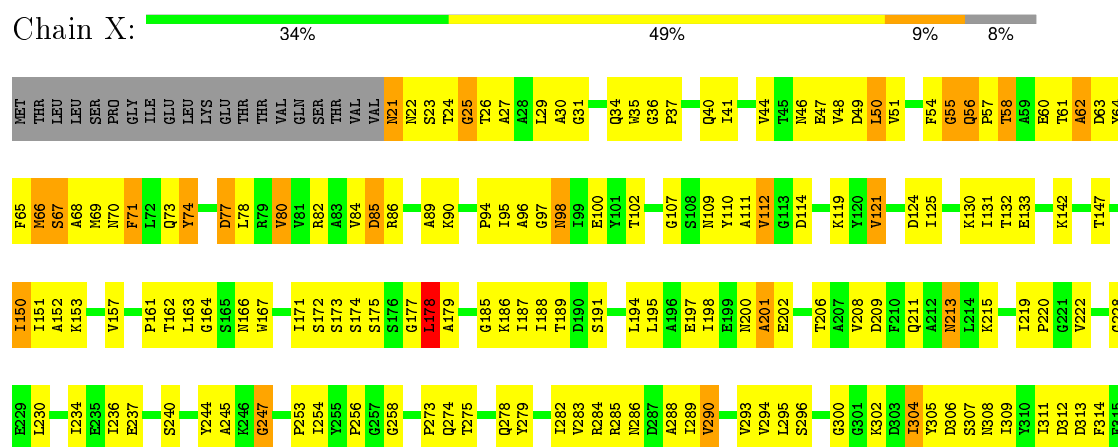




• Molecule 2: Tail sheath protein Gp18



• Molecule 2: Tail sheath protein Gp18



F642	V643	A644	T645	THR	GLY	ALA	ASP	PHE	ASP	GLU	LEU	THR	GLY	LEU	ALA	GLY	T580	R516	D451	A386	D451	G452	N453	Y454	K455	V456	Q457	V458	D459	K460	N465	R466	N467	V468	L469	L470	A471	A472	D473	I474	A475	C476	S477	R478	V479	P480	T481	D482	N483	V484	SER	GLN	TRP	TRP	MET	I425	L426	V427	I428	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381	S382	L383	F384	S385	A386	K317	V318	Y319	Q320	I321	Y322	I323	Q328	N329	W330	P331	F334	S335	G336	I337	L338	T339	L340	L344	S345	S346	N347	A348	E349	V350	T351	A352	G353	D354	L355	W359	D360	F361	F362	A363	D364	R365	R366	S367	V368	D369	V370	Q371	I372	F373	I374	A375	G376	S377	G378	A379	G380	E381
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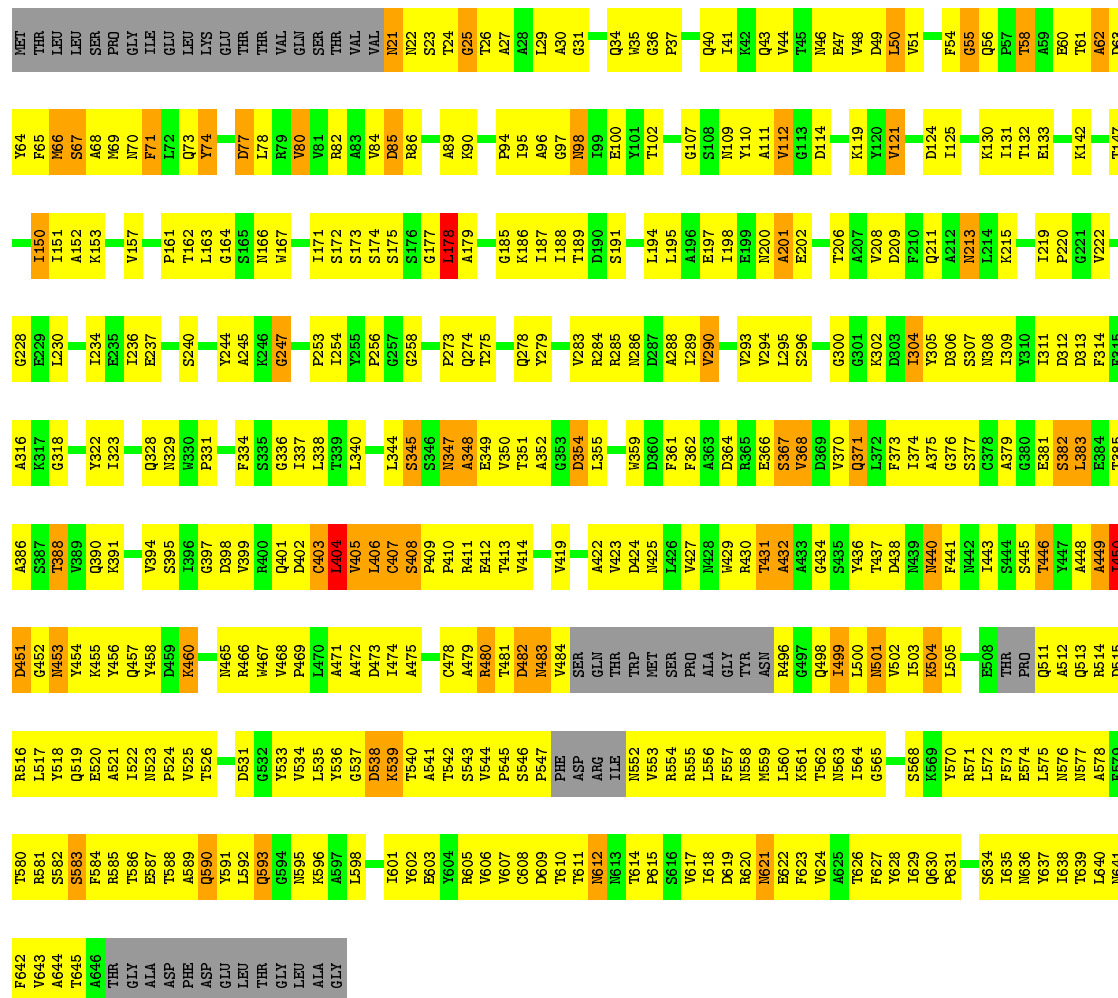
• Molecule 2: Tail sheath protein Gp18

Chain Y: 34% 50% 9% 8%

F642	T580	D515	A449	E384	F315	G228	T147	Y64
V643	R581	R516	I450	T385	A316	E229	T147	F65
A644	S582	L517	D451	A386	K317	L230	T147	M66
A646	S583	Y518	G452	S387	G318		I150	S67
	F584	Q519	N453	T388		I234	I151	A68
THR	R585	E520	Y454	T389	Y322	E235	A152	SER
GLY	T586	A521	K455	Q390	I323	I236	K153	PRO
ALA	E587	I522	Y456	K391		E237		GLY
ASP	T588	N523	Q457		Q328		V157	ILE
PHE	A589	P524	Y458		N329	S240		GLU
ASP	Q590	V525	D459		N330		P161	LEU
GLU	Y591	T526	K460		P331	Y244	T162	LYS
LEU	L592					A245		GLU
THR	Q593	D531			F334	K246		THR
GLY	G594		R466		S335	G247	W167	THR
LEU	N595	V534	V467	R400	G336			GLN
ALA	K596	L536	V468	Q401	I337	L252	I171	SER
GLY	A597	Y536	P469	D402	L338	P253	S172	THR
		G537	L470	C403	T339	I254	S173	VAL
		D538	A471	L404	L340	Y255	S174	VAL
	I601	R539	A472	V405		G257	S175	N21
	Y602	T540	D473	L406	G343	G257	S176	N22
	E603	A541	I474	C407	L344	G258	G177	S23
	Y604	T542	A475	S408	S345		L178	T24
	R605	S543		P409	S346	P273	A179	A89
	V606	V544	C478	P410	N347	Q274		K90
	V607	P545	A479	R411	A348	T275	G185	N91
	C608	S546	R480	E412	E349	K186	S93	A27
	D609	P547	T481	T413	V350	Q278	I187	S93
	T610	PHE	D482	V414	T351	Y279	I188	L29
	T611	ASP	N483		A352		T189	A30
	N612	ARG	V484	V419	G353	V283	D190	A96
	N613	ILE	SER		D354	R284	S191	G97
	T614	N552	GLN	A422	L355	R285		N98
	P615	V553	THR	V423		N286	L194	R35
	S616	R554	TRP	D424	W359	A288	L195	N35
	V617	R555	MET	N425	D360	D387	A196	G36
	L618	L556	SER	L426	F361	I289	E197	P37
	D619	F557	PRO	V427	F362	V290	I198	S97
	R620	N558	ALA	N428	A363		E199	T40
	N621	N559	GLY	V429	D364	V293	N200	R42
	E622	L560	TYR	R430	R365	V294	A201	Q43
	F623	T561	ASN	T431	E366	L295	E202	N109
	V624	T562	R496	A432	S367	S296		Y110
	A625	N563		A433	V368		T206	T45
	T626	I564	I499	G434	D369	G300	A207	N46
	F627	G565	L500	S435	V370	G301	V208	V48
	Y628		N501	Y436	Q371	K302	D209	D49
	I629	S568	L502	T437	L372	D303	F210	L50
	P631	R569	K504	N439	F373	Q211	A212	V51
		Y570	R504	V439	I374	Y305	K212	F54
		R571	L505	N440	A375	R306	N213	G55
	S634	L572		F441	G376	S307	L214	O56
	I635	R573	E508	N442	S377	N308	K215	P57
	K636	E574	THR	I443	G378	I309		T58
	V637	L575	P90	S444	A379	Y310	T219	A59
	T638	N576	Q511	S445	G380	I311	P220	E60
	T639	N577	A512	T446	E381	D312	G221	T61
		A578	Q513	Y447	S382	V222		A62
	N641	R579	R544	A448	I392	D314		D63

• Molecule 2: Tail sheath protein Gp18

Chain Z:  33% 50% 9% 8%



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	FSC at 0.5 cut-off	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI/PHILIPS CM300FEG/T	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	3400	Depositor
Magnification	45000	Depositor
Image detector	Not provided	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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 >2	RMSZ	# Z >2
1	A	0.49	0/1787	0.64	0/2421
1	B	0.47	0/1787	0.63	0/2421
1	C	0.48	0/1787	0.64	1/2421 (0.0%)
1	D	0.49	0/1787	0.63	0/2421
1	E	0.49	0/1787	0.63	0/2421
1	F	0.50	0/1787	0.65	0/2421
2	U	0.60	0/4729	0.90	21/6427 (0.3%)
2	V	0.60	0/4729	0.89	21/6427 (0.3%)
2	W	0.60	0/4729	0.90	21/6427 (0.3%)
2	X	0.59	0/4729	0.90	21/6427 (0.3%)
2	Y	0.60	0/4729	0.90	21/6427 (0.3%)
2	Z	0.60	0/4729	0.90	21/6427 (0.3%)
All	All	0.57	0/39096	0.83	127/53088 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	U	0	4
2	V	0	4
2	W	0	4
2	X	0	4
2	Y	0	4
2	Z	0	4
All	All	0	24

There are no bond length outliers.

All (127) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Y	55	GLY	N-CA-C	18.05	158.21	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	V	55	GLY	N-CA-C	18.03	158.18	113.10
2	X	55	GLY	N-CA-C	18.03	158.16	113.10
2	W	55	GLY	N-CA-C	18.01	158.13	113.10
2	Z	55	GLY	N-CA-C	18.01	158.12	113.10
2	U	55	GLY	N-CA-C	17.91	157.87	113.10
2	W	56	GLN	N-CA-CB	-11.45	90.00	110.60
2	U	56	GLN	N-CA-CB	-11.42	90.04	110.60
2	Z	56	GLN	N-CA-CB	-11.42	90.05	110.60
2	Y	56	GLN	N-CA-CB	-11.39	90.09	110.60
2	V	56	GLN	N-CA-CB	-11.38	90.11	110.60
2	X	56	GLN	N-CA-CB	-11.38	90.11	110.60
2	X	367	SER	N-CA-CB	-10.71	94.43	110.50
2	Y	367	SER	N-CA-CB	-10.71	94.43	110.50
2	U	367	SER	N-CA-CB	-10.62	94.57	110.50
2	V	367	SER	N-CA-CB	-10.61	94.58	110.50
2	Z	367	SER	N-CA-CB	-10.61	94.58	110.50
2	W	367	SER	N-CA-CB	-10.60	94.59	110.50
2	Y	111	ALA	CB-CA-C	9.69	124.64	110.10
2	Y	405	VAL	N-CA-C	-9.68	84.85	111.00
2	X	405	VAL	N-CA-C	-9.67	84.90	111.00
2	W	405	VAL	N-CA-C	-9.64	84.97	111.00
2	Z	111	ALA	CB-CA-C	9.63	124.55	110.10
2	U	112	VAL	N-CA-C	9.62	136.97	111.00
2	X	112	VAL	N-CA-C	9.62	136.96	111.00
2	U	405	VAL	N-CA-C	-9.60	85.09	111.00
2	Z	405	VAL	N-CA-C	-9.59	85.11	111.00
2	U	407	CYS	CB-CA-C	-9.59	91.22	110.40
2	V	111	ALA	CB-CA-C	9.58	124.47	110.10
2	Z	112	VAL	N-CA-C	9.57	136.84	111.00
2	W	111	ALA	CB-CA-C	9.55	124.42	110.10
2	X	111	ALA	CB-CA-C	9.54	124.41	110.10
2	U	111	ALA	CB-CA-C	9.53	124.40	110.10
2	V	112	VAL	N-CA-C	9.53	136.74	111.00
2	V	405	VAL	N-CA-C	-9.53	85.27	111.00
2	Z	407	CYS	CB-CA-C	-9.53	91.35	110.40
2	Y	112	VAL	N-CA-C	9.52	136.70	111.00
2	V	407	CYS	CB-CA-C	-9.51	91.37	110.40
2	X	407	CYS	CB-CA-C	-9.49	91.42	110.40
2	W	407	CYS	CB-CA-C	-9.46	91.49	110.40
2	W	112	VAL	N-CA-C	9.45	136.52	111.00
2	Y	407	CYS	CB-CA-C	-9.36	91.67	110.40
2	V	408	SER	N-CA-CB	-8.97	97.05	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	U	408	SER	N-CA-CB	-8.94	97.10	110.50
2	Z	408	SER	N-CA-CB	-8.92	97.13	110.50
2	Y	408	SER	N-CA-CB	-8.91	97.14	110.50
2	X	408	SER	N-CA-CB	-8.84	97.24	110.50
2	W	408	SER	N-CA-CB	-8.81	97.29	110.50
2	U	112	VAL	CB-CA-C	-7.66	96.84	111.40
2	V	404	LEU	N-CA-C	-7.66	90.31	111.00
2	V	112	VAL	CB-CA-C	-7.63	96.90	111.40
2	X	112	VAL	CB-CA-C	-7.63	96.91	111.40
2	Y	112	VAL	CB-CA-C	-7.63	96.91	111.40
2	Z	112	VAL	CB-CA-C	-7.61	96.94	111.40
2	U	404	LEU	N-CA-C	-7.61	90.47	111.00
2	W	112	VAL	CB-CA-C	-7.59	96.98	111.40
2	Y	404	LEU	N-CA-C	-7.52	90.69	111.00
2	W	404	LEU	N-CA-C	-7.52	90.70	111.00
2	Z	404	LEU	N-CA-C	-7.50	90.74	111.00
2	W	366	GLU	CB-CA-C	7.46	125.33	110.40
2	X	404	LEU	N-CA-C	-7.46	90.84	111.00
2	U	366	GLU	CB-CA-C	7.42	125.24	110.40
2	X	366	GLU	CB-CA-C	7.39	125.19	110.40
2	Z	366	GLU	CB-CA-C	7.38	125.17	110.40
2	Y	366	GLU	CB-CA-C	7.25	124.90	110.40
2	V	366	GLU	CB-CA-C	7.19	124.78	110.40
2	W	404	LEU	CB-CA-C	6.95	123.40	110.20
2	U	404	LEU	CB-CA-C	6.90	123.30	110.20
2	V	404	LEU	CB-CA-C	6.86	123.24	110.20
2	Y	404	LEU	CB-CA-C	6.81	123.13	110.20
2	Z	404	LEU	CB-CA-C	6.80	123.12	110.20
2	X	404	LEU	CB-CA-C	6.78	123.07	110.20
2	Y	449	ALA	CB-CA-C	6.75	120.22	110.10
2	X	449	ALA	CB-CA-C	6.72	120.18	110.10
2	U	449	ALA	CB-CA-C	6.72	120.18	110.10
2	W	449	ALA	CB-CA-C	6.67	120.11	110.10
2	V	449	ALA	CB-CA-C	6.65	120.08	110.10
2	X	85	ASP	N-CA-C	-6.64	93.08	111.00
2	V	85	ASP	N-CA-C	-6.58	93.23	111.00
2	Y	85	ASP	N-CA-C	-6.57	93.25	111.00
2	W	85	ASP	N-CA-C	-6.55	93.31	111.00
2	Z	449	ALA	CB-CA-C	6.53	119.89	110.10
2	Z	85	ASP	N-CA-C	-6.51	93.43	111.00
2	U	85	ASP	N-CA-C	-6.50	93.46	111.00
2	Z	406	LEU	CB-CA-C	6.24	122.06	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	W	406	LEU	CB-CA-C	6.21	121.99	110.20
2	V	406	LEU	CB-CA-C	6.16	121.90	110.20
2	X	406	LEU	CB-CA-C	6.15	121.89	110.20
2	U	406	LEU	CB-CA-C	6.13	121.85	110.20
2	Y	406	LEU	CB-CA-C	6.10	121.79	110.20
2	W	85	ASP	CB-CA-C	5.84	122.08	110.40
2	V	85	ASP	CB-CA-C	5.79	121.98	110.40
2	X	85	ASP	CB-CA-C	5.71	121.83	110.40
2	U	85	ASP	CB-CA-C	5.70	121.79	110.40
2	Z	85	ASP	CB-CA-C	5.69	121.78	110.40
2	Y	85	ASP	CB-CA-C	5.66	121.72	110.40
2	W	406	LEU	N-CA-C	-5.39	96.43	111.00
2	V	406	LEU	N-CA-C	-5.39	96.45	111.00
2	Y	406	LEU	N-CA-C	-5.39	96.45	111.00
2	Z	406	LEU	N-CA-C	-5.38	96.47	111.00
2	U	406	LEU	N-CA-C	-5.36	96.52	111.00
2	X	406	LEU	N-CA-C	-5.32	96.63	111.00
2	X	179	ALA	N-CA-C	5.26	125.20	111.00
2	U	179	ALA	N-CA-C	5.25	125.17	111.00
2	W	179	ALA	N-CA-C	5.22	125.09	111.00
2	V	179	ALA	N-CA-C	5.19	125.02	111.00
2	X	178	LEU	N-CA-CB	-5.18	100.03	110.40
2	Z	179	ALA	N-CA-C	5.16	124.94	111.00
2	U	21	ASN	C-N-CA	5.16	134.60	121.70
2	Y	179	ALA	N-CA-C	5.16	124.93	111.00
2	Z	21	ASN	C-N-CA	5.15	134.58	121.70
2	W	178	LEU	N-CA-CB	-5.14	100.12	110.40
2	Y	178	LEU	N-CA-CB	-5.14	100.12	110.40
2	U	178	LEU	N-CA-CB	-5.14	100.12	110.40
2	X	21	ASN	C-N-CA	5.11	134.47	121.70
1	C	190	LEU	CA-CB-CG	5.11	127.05	115.30
2	X	449	ALA	N-CA-C	-5.10	97.23	111.00
2	U	449	ALA	N-CA-C	-5.09	97.26	111.00
2	Z	178	LEU	N-CA-CB	-5.08	100.24	110.40
2	V	178	LEU	N-CA-CB	-5.08	100.25	110.40
2	V	449	ALA	N-CA-C	-5.07	97.31	111.00
2	Y	449	ALA	N-CA-C	-5.06	97.34	111.00
2	V	21	ASN	C-N-CA	5.06	134.34	121.70
2	Z	449	ALA	N-CA-C	-5.05	97.37	111.00
2	W	449	ALA	N-CA-C	-5.04	97.39	111.00
2	W	21	ASN	C-N-CA	5.04	134.29	121.70
2	Y	21	ASN	C-N-CA	5.03	134.28	121.70

There are no chirality outliers.

All (24) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	U	21	ASN	Peptide
2	U	450	ILE	Peptide
2	U	451	ASP	Peptide
2	U	452	GLY	Peptide
2	V	21	ASN	Peptide
2	V	450	ILE	Peptide
2	V	451	ASP	Peptide
2	V	452	GLY	Peptide
2	W	21	ASN	Peptide
2	W	450	ILE	Peptide
2	W	451	ASP	Peptide
2	W	452	GLY	Peptide
2	X	21	ASN	Peptide
2	X	450	ILE	Peptide
2	X	451	ASP	Peptide
2	X	452	GLY	Peptide
2	Y	21	ASN	Peptide
2	Y	450	ILE	Peptide
2	Y	451	ASP	Peptide
2	Y	452	GLY	Peptide
2	Z	21	ASN	Peptide
2	Z	450	ILE	Peptide
2	Z	451	ASP	Peptide
2	Z	452	GLY	Peptide

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	1742	0	1673	29	0
1	B	1742	0	1673	33	0
1	C	1742	0	1673	30	0
1	D	1742	0	1673	29	0
1	E	1742	0	1673	32	0
1	F	1742	0	1673	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	U	4647	0	4563	565	0
2	V	4647	0	4564	571	0
2	W	4647	0	4564	568	0
2	X	4647	0	4564	565	0
2	Y	4647	0	4564	557	0
2	Z	4647	0	4564	561	0
All	All	38334	0	37421	3566	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 47.

All (3566) 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:U:404:LEU:CG	2:U:554:ARG:HH12	1.22	1.52
2:V:404:LEU:CG	2:V:554:ARG:HH12	1.22	1.51
2:Z:404:LEU:CG	2:Z:554:ARG:HH12	1.23	1.51
2:Y:404:LEU:CG	2:Y:554:ARG:HH12	1.22	1.50
2:X:496:ARG:N	2:X:534:VAL:CB	1.73	1.50
2:X:404:LEU:CG	2:X:554:ARG:HH12	1.22	1.50
2:X:409:PRO:O	2:X:454:TYR:CE1	1.66	1.49
2:Y:496:ARG:N	2:Y:534:VAL:CB	1.74	1.49
2:W:496:ARG:N	2:W:534:VAL:CB	1.74	1.49
2:Y:409:PRO:O	2:Y:454:TYR:CE1	1.65	1.49
2:W:409:PRO:O	2:W:454:TYR:CE1	1.65	1.49
2:W:404:LEU:CG	2:W:554:ARG:HH12	1.22	1.49
2:Y:446:THR:HG22	2:Y:542:THR:CG2	1.42	1.48
2:V:496:ARG:N	2:V:534:VAL:CB	1.74	1.48
2:Z:409:PRO:O	2:Z:454:TYR:CE1	1.66	1.48
2:V:446:THR:HG22	2:V:542:THR:CG2	1.42	1.47
2:Z:446:THR:HG22	2:Z:542:THR:CG2	1.42	1.47
2:Z:496:ARG:N	2:Z:534:VAL:CB	1.74	1.47
2:V:409:PRO:O	2:V:454:TYR:CE1	1.65	1.47
2:U:496:ARG:N	2:U:534:VAL:CB	1.74	1.47
2:U:409:PRO:O	2:U:454:TYR:CE1	1.65	1.46
2:X:496:ARG:N	2:X:534:VAL:HB	1.13	1.46
2:W:446:THR:HG22	2:W:542:THR:CG2	1.42	1.46
2:Y:496:ARG:N	2:Y:534:VAL:HB	1.14	1.45
2:X:446:THR:HG22	2:X:542:THR:CG2	1.42	1.45
2:U:446:THR:HG22	2:U:542:THR:CG2	1.42	1.44
2:W:496:ARG:N	2:W:534:VAL:HB	1.14	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:404:LEU:HG	2:V:554:ARG:NH1	1.09	1.40
2:W:404:LEU:HG	2:W:554:ARG:NH1	1.08	1.40
2:Z:496:ARG:N	2:Z:534:VAL:HB	1.14	1.40
2:U:404:LEU:HG	2:U:554:ARG:NH1	1.08	1.39
2:Z:404:LEU:HG	2:Z:554:ARG:NH1	1.09	1.39
2:U:496:ARG:N	2:U:534:VAL:HB	1.14	1.39
2:X:404:LEU:HG	2:X:554:ARG:NH1	1.09	1.38
2:V:496:ARG:N	2:V:534:VAL:HB	1.14	1.37
2:Y:404:LEU:HG	2:Y:554:ARG:NH1	1.09	1.37
2:W:409:PRO:CD	2:W:451:ASP:O	1.75	1.35
2:Z:409:PRO:CD	2:Z:451:ASP:O	1.75	1.33
2:X:446:THR:O	2:X:539:LYS:HE3	1.28	1.33
2:X:409:PRO:CD	2:X:451:ASP:O	1.75	1.33
2:V:409:PRO:CD	2:V:451:ASP:O	1.76	1.32
2:U:409:PRO:CD	2:U:451:ASP:O	1.76	1.31
2:Y:446:THR:O	2:Y:539:LYS:HE3	1.27	1.31
2:Y:409:PRO:CD	2:Y:451:ASP:O	1.75	1.31
2:W:446:THR:O	2:W:539:LYS:HE3	1.27	1.29
2:Z:446:THR:O	2:Z:539:LYS:HE3	1.27	1.26
2:V:379:ALA:HB2	2:V:454:TYR:OH	1.36	1.25
2:U:379:ALA:HB2	2:U:454:TYR:OH	1.36	1.25
2:Z:379:ALA:CB	2:Z:454:TYR:OH	1.84	1.25
2:V:446:THR:O	2:V:539:LYS:HE3	1.27	1.25
2:W:379:ALA:HB2	2:W:454:TYR:OH	1.37	1.25
2:Y:379:ALA:CB	2:Y:454:TYR:OH	1.85	1.25
2:X:379:ALA:CB	2:X:454:TYR:OH	1.84	1.25
2:U:379:ALA:CB	2:U:454:TYR:OH	1.84	1.24
2:V:379:ALA:CB	2:V:454:TYR:OH	1.84	1.23
2:U:446:THR:O	2:U:539:LYS:HE3	1.28	1.23
2:W:379:ALA:CB	2:W:454:TYR:OH	1.85	1.23
2:Z:427:VAL:HG11	2:Z:516:ARG:NH2	1.54	1.22
2:V:427:VAL:HG11	2:V:516:ARG:NH2	1.54	1.22
2:X:379:ALA:HB2	2:X:454:TYR:OH	1.37	1.22
2:W:427:VAL:HG11	2:W:516:ARG:NH2	1.55	1.22
2:U:427:VAL:HG11	2:U:516:ARG:NH2	1.54	1.21
2:Y:427:VAL:HG11	2:Y:516:ARG:NH2	1.54	1.19
2:X:427:VAL:HG11	2:X:516:ARG:NH2	1.55	1.19
2:V:524:PRO:HG2	2:V:535:LEU:HB2	1.23	1.17
2:Y:446:THR:HG22	2:Y:542:THR:HG21	1.26	1.17
2:W:524:PRO:HG2	2:W:535:LEU:HB2	1.23	1.17
2:W:427:VAL:HG11	2:W:516:ARG:HH21	1.02	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:409:PRO:HD3	2:V:451:ASP:O	0.98	1.16
2:Y:409:PRO:HD3	2:Y:451:ASP:O	0.98	1.16
2:Y:379:ALA:HB2	2:Y:454:TYR:OH	1.37	1.16
2:Z:483:ASN:O	2:Z:555:ARG:HB3	1.45	1.16
2:U:409:PRO:HD3	2:U:451:ASP:O	0.99	1.15
2:Z:409:PRO:HD3	2:Z:451:ASP:O	0.98	1.15
2:W:483:ASN:O	2:W:555:ARG:HB3	1.46	1.15
2:X:427:VAL:HG11	2:X:516:ARG:HH21	1.01	1.15
2:Y:483:ASN:O	2:Y:555:ARG:HB3	1.46	1.15
2:X:496:ARG:N	2:X:534:VAL:CG2	2.09	1.15
2:W:496:ARG:N	2:W:534:VAL:CG2	2.09	1.15
2:W:409:PRO:HD3	2:W:451:ASP:O	0.98	1.15
2:Y:496:ARG:N	2:Y:534:VAL:CG2	2.09	1.15
2:U:483:ASN:O	2:U:555:ARG:HB3	1.46	1.14
2:V:483:ASN:O	2:V:555:ARG:HB3	1.46	1.14
2:X:483:ASN:O	2:X:555:ARG:HB3	1.46	1.14
2:Z:496:ARG:N	2:Z:534:VAL:CG2	2.10	1.14
2:X:379:ALA:HB1	2:X:454:TYR:CZ	1.83	1.14
2:X:409:PRO:HD3	2:X:451:ASP:O	0.99	1.14
2:U:496:ARG:N	2:U:534:VAL:CG2	2.09	1.14
2:X:524:PRO:HG2	2:X:535:LEU:HB2	1.23	1.13
2:W:379:ALA:HB1	2:W:454:TYR:CZ	1.84	1.13
2:V:379:ALA:HB1	2:V:454:TYR:CZ	1.83	1.13
2:Z:379:ALA:HB1	2:Z:454:TYR:CZ	1.83	1.13
2:Z:379:ALA:HB2	2:Z:454:TYR:OH	1.37	1.13
2:V:496:ARG:N	2:V:534:VAL:CG2	2.09	1.13
2:Z:446:THR:HG22	2:Z:542:THR:HG21	1.26	1.13
2:Y:379:ALA:HB1	2:Y:454:TYR:CZ	1.83	1.13
2:X:446:THR:HG22	2:X:542:THR:HG21	1.26	1.13
2:W:505:LEU:CD1	2:W:525:VAL:HG11	1.78	1.13
2:V:505:LEU:CD1	2:V:525:VAL:HG11	1.79	1.13
2:U:379:ALA:HB1	2:U:454:TYR:CZ	1.83	1.13
2:Y:454:TYR:CE2	2:Y:469:PRO:HA	1.84	1.12
2:V:454:TYR:CE2	2:V:469:PRO:HA	1.84	1.12
2:Y:505:LEU:CD1	2:Y:525:VAL:HG11	1.79	1.12
2:U:524:PRO:HG2	2:U:535:LEU:HB2	1.23	1.12
2:Z:454:TYR:CE2	2:Z:469:PRO:HA	1.84	1.12
2:V:427:VAL:HG11	2:V:516:ARG:HH21	1.01	1.12
2:Y:427:VAL:HG11	2:Y:516:ARG:HH21	1.02	1.12
2:X:505:LEU:CD1	2:X:525:VAL:HG11	1.79	1.12
2:Z:505:LEU:CD1	2:Z:525:VAL:HG11	1.79	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:454:TYR:CE2	2:U:469:PRO:HA	1.84	1.11
2:U:450:ILE:HG12	2:U:451:ASP:H	0.94	1.11
2:X:454:TYR:CE2	2:X:469:PRO:HA	1.84	1.11
2:W:454:TYR:CE2	2:W:469:PRO:HA	1.84	1.11
2:Z:450:ILE:HG12	2:Z:451:ASP:H	0.94	1.11
2:Z:524:PRO:HG2	2:Z:535:LEU:HB2	1.23	1.11
2:U:505:LEU:CD1	2:U:525:VAL:HG11	1.79	1.11
2:V:450:ILE:HG12	2:V:451:ASP:H	0.94	1.10
2:Y:450:ILE:HG12	2:Y:451:ASP:H	0.94	1.10
2:W:379:ALA:CB	2:W:454:TYR:CZ	2.35	1.09
2:X:379:ALA:CB	2:X:454:TYR:CZ	2.35	1.09
2:X:450:ILE:HG12	2:X:451:ASP:H	0.94	1.09
2:W:450:ILE:HG12	2:W:451:ASP:H	0.94	1.09
2:U:446:THR:HG22	2:U:542:THR:HG21	1.26	1.09
2:U:409:PRO:O	2:U:454:TYR:CZ	2.06	1.09
2:Y:379:ALA:CB	2:Y:454:TYR:CZ	2.36	1.09
2:W:446:THR:HG22	2:W:542:THR:HG21	1.26	1.09
2:U:379:ALA:CB	2:U:454:TYR:CZ	2.35	1.08
2:V:379:ALA:CB	2:V:454:TYR:CZ	2.35	1.08
2:Z:409:PRO:O	2:Z:454:TYR:CZ	2.06	1.08
2:U:427:VAL:HG11	2:U:516:ARG:HH21	1.02	1.08
2:V:409:PRO:O	2:V:454:TYR:CZ	2.06	1.08
2:V:454:TYR:CD2	2:V:469:PRO:HA	1.89	1.08
2:Y:454:TYR:CD2	2:Y:469:PRO:HA	1.89	1.08
2:U:446:THR:CG2	2:U:542:THR:CG2	2.32	1.07
2:Z:379:ALA:CB	2:Z:454:TYR:CZ	2.35	1.07
2:Z:51:VAL:HA	2:Z:55:GLY:HA2	1.36	1.07
2:Y:409:PRO:O	2:Y:454:TYR:CZ	2.06	1.07
2:X:409:PRO:O	2:X:454:TYR:CZ	2.06	1.07
2:U:51:VAL:HA	2:U:55:GLY:HA2	1.36	1.07
2:U:446:THR:HG22	2:U:542:THR:HG22	1.08	1.07
2:Y:524:PRO:HG2	2:Y:535:LEU:HB2	1.23	1.07
2:W:446:THR:CG2	2:W:542:THR:CG2	2.32	1.07
2:Y:51:VAL:HA	2:Y:55:GLY:HA2	1.37	1.07
2:X:51:VAL:HA	2:X:55:GLY:HA2	1.36	1.07
2:V:446:THR:HG22	2:V:542:THR:HG21	1.26	1.07
2:Z:446:THR:CG2	2:Z:542:THR:CG2	2.32	1.07
2:Z:454:TYR:CD2	2:Z:469:PRO:HA	1.90	1.07
2:W:409:PRO:O	2:W:454:TYR:CZ	2.06	1.07
2:X:446:THR:HG22	2:X:542:THR:HG22	1.08	1.06
2:W:454:TYR:CD2	2:W:469:PRO:HA	1.89	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:446:THR:HG22	2:V:542:THR:HG22	1.08	1.06
2:U:446:THR:CG2	2:U:542:THR:HG22	1.85	1.06
2:V:446:THR:CG2	2:V:542:THR:CG2	2.32	1.06
2:X:446:THR:CG2	2:X:542:THR:CG2	2.33	1.06
2:X:454:TYR:CD2	2:X:469:PRO:HA	1.90	1.06
2:U:454:TYR:CD2	2:U:469:PRO:HA	1.90	1.06
2:Y:446:THR:CG2	2:Y:542:THR:CG2	2.32	1.06
2:V:446:THR:CG2	2:V:542:THR:HG22	1.85	1.06
2:Y:446:THR:HG22	2:Y:542:THR:HG22	1.08	1.06
2:Z:446:THR:HG22	2:Z:542:THR:HG22	1.08	1.05
2:X:450:ILE:HG12	2:X:451:ASP:N	1.67	1.05
2:W:51:VAL:HA	2:W:55:GLY:HA2	1.36	1.05
2:V:51:VAL:HA	2:V:55:GLY:HA2	1.36	1.05
2:W:446:THR:HG22	2:W:542:THR:HG22	1.08	1.05
2:Y:446:THR:CG2	2:Y:542:THR:HG22	1.86	1.04
2:W:450:ILE:HG12	2:W:451:ASP:N	1.67	1.04
2:Z:446:THR:CG2	2:Z:542:THR:HG22	1.85	1.04
2:V:450:ILE:HG12	2:V:451:ASP:N	1.67	1.04
2:X:446:THR:CG2	2:X:542:THR:HG22	1.86	1.04
2:W:446:THR:CG2	2:W:542:THR:HG22	1.86	1.04
2:Z:427:VAL:HG11	2:Z:516:ARG:HH21	1.01	1.03
2:Y:450:ILE:HG12	2:Y:451:ASP:N	1.67	1.03
2:U:450:ILE:HG12	2:U:451:ASP:N	1.67	1.01
2:Z:450:ILE:HG12	2:Z:451:ASP:N	1.67	1.00
2:X:556:LEU:HD23	2:X:560:LEU:HD23	1.46	0.98
2:W:556:LEU:HD23	2:W:560:LEU:HD23	1.46	0.98
2:Z:556:LEU:HD23	2:Z:560:LEU:HD23	1.46	0.98
2:V:514:ARG:HG3	2:V:535:LEU:HD13	1.46	0.97
2:Y:556:LEU:HD23	2:Y:560:LEU:HD23	1.46	0.97
2:Z:228:GLY:HA2	2:Z:345:SER:HB3	1.46	0.97
2:Y:481:THR:HG21	2:Y:496:ARG:NH2	1.80	0.97
2:U:228:GLY:HA2	2:U:345:SER:HB3	1.47	0.97
2:V:556:LEU:HD23	2:V:560:LEU:HD23	1.46	0.96
2:Z:628:TYR:CD2	2:Z:639:THR:HG22	2.00	0.96
2:W:228:GLY:HA2	2:W:345:SER:HB3	1.47	0.96
2:Z:514:ARG:HG3	2:Z:535:LEU:HD13	1.46	0.96
2:X:628:TYR:CD2	2:X:639:THR:HG22	2.00	0.96
2:X:228:GLY:HA2	2:X:345:SER:HB3	1.47	0.96
2:U:628:TYR:CD2	2:U:639:THR:HG22	2.01	0.96
2:U:556:LEU:HD23	2:U:560:LEU:HD23	1.46	0.96
2:V:228:GLY:HA2	2:V:345:SER:HB3	1.47	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:628:TYR:CD2	2:W:639:THR:HG22	2.01	0.96
2:U:409:PRO:O	2:U:454:TYR:HE1	1.15	0.96
2:U:514:ARG:HG3	2:U:535:LEU:HD13	1.47	0.96
2:Y:228:GLY:HA2	2:Y:345:SER:HB3	1.47	0.95
2:Y:628:TYR:CD2	2:Y:639:THR:HG22	2.01	0.95
2:V:628:TYR:CD2	2:V:639:THR:HG22	2.01	0.95
2:X:112:VAL:O	2:X:112:VAL:CG1	2.14	0.95
2:Z:409:PRO:O	2:Z:454:TYR:HE1	1.16	0.95
2:V:112:VAL:O	2:V:112:VAL:CG1	2.14	0.95
2:Y:112:VAL:CG1	2:Y:112:VAL:O	2.14	0.94
2:Y:514:ARG:HG3	2:Y:535:LEU:HD13	1.47	0.94
2:W:112:VAL:O	2:W:112:VAL:CG1	2.14	0.94
2:U:481:THR:HG21	2:U:496:ARG:NH2	1.82	0.94
2:X:514:ARG:HG3	2:X:535:LEU:HD13	1.47	0.94
2:Z:112:VAL:CG1	2:Z:112:VAL:O	2.13	0.94
2:U:112:VAL:CG1	2:U:112:VAL:O	2.13	0.94
2:X:481:THR:HG21	2:X:496:ARG:NH2	1.81	0.93
2:Y:409:PRO:O	2:Y:454:TYR:HE1	1.15	0.93
2:W:514:ARG:HG3	2:W:535:LEU:HD13	1.46	0.93
2:Z:483:ASN:O	2:Z:555:ARG:CB	2.17	0.93
2:W:483:ASN:O	2:W:555:ARG:CB	2.17	0.93
2:U:518:TYR:CE2	2:U:536:TYR:HB2	2.04	0.93
2:Y:518:TYR:CE2	2:Y:536:TYR:HB2	2.03	0.93
2:X:518:TYR:CE2	2:X:536:TYR:HB2	2.04	0.93
2:V:481:THR:HG21	2:V:496:ARG:NH2	1.83	0.93
2:U:514:ARG:CZ	2:U:535:LEU:HD22	1.99	0.92
2:Z:481:THR:HG21	2:Z:496:ARG:NH2	1.84	0.92
2:U:483:ASN:O	2:U:555:ARG:CB	2.17	0.92
2:V:514:ARG:CZ	2:V:535:LEU:HD22	1.99	0.92
2:X:483:ASN:O	2:X:555:ARG:CB	2.17	0.92
2:W:481:THR:HG21	2:W:496:ARG:NH2	1.85	0.92
2:Z:408:SER:CA	2:Z:451:ASP:HB3	2.00	0.92
2:Z:514:ARG:CZ	2:Z:535:LEU:HD22	1.99	0.92
2:V:483:ASN:O	2:V:555:ARG:CB	2.17	0.92
2:W:514:ARG:CZ	2:W:535:LEU:HD22	1.99	0.92
2:Y:483:ASN:O	2:Y:555:ARG:CB	2.18	0.92
2:X:514:ARG:CZ	2:X:535:LEU:HD22	2.00	0.91
2:W:518:TYR:CE2	2:W:536:TYR:HB2	2.04	0.91
2:V:409:PRO:O	2:V:454:TYR:HE1	1.16	0.91
2:V:518:TYR:CE2	2:V:536:TYR:HB2	2.04	0.91
2:Z:518:TYR:CE2	2:Z:536:TYR:HB2	2.04	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:408:SER:CA	2:V:451:ASP:HB3	2.00	0.91
2:U:23:SER:OG	2:U:483:ASN:CB	2.19	0.91
2:V:23:SER:OG	2:V:483:ASN:CB	2.19	0.91
2:Y:408:SER:CA	2:Y:451:ASP:HB3	2.00	0.91
2:X:23:SER:OG	2:X:483:ASN:CB	2.19	0.91
2:Y:514:ARG:CZ	2:Y:535:LEU:HD22	1.99	0.90
2:X:408:SER:CA	2:X:451:ASP:HB3	2.00	0.90
2:W:408:SER:CA	2:W:451:ASP:HB3	2.00	0.90
2:W:23:SER:OG	2:W:483:ASN:CB	2.19	0.90
2:Z:23:SER:OG	2:Z:483:ASN:CB	2.19	0.90
2:Z:496:ARG:N	2:Z:534:VAL:HG21	1.87	0.90
2:Y:23:SER:OG	2:Y:483:ASN:CB	2.20	0.90
2:Y:482:ASP:OD2	2:Y:552:ASN:ND2	2.05	0.90
2:Y:496:ARG:N	2:Y:534:VAL:HG21	1.87	0.90
2:U:496:ARG:N	2:U:534:VAL:HG21	1.87	0.90
2:U:408:SER:CA	2:U:451:ASP:HB3	2.00	0.90
2:Z:408:SER:HA	2:Z:451:ASP:HB3	1.54	0.89
2:X:482:ASP:OD2	2:X:552:ASN:ND2	2.05	0.89
2:Z:482:ASP:OD2	2:Z:552:ASN:ND2	2.05	0.89
2:W:404:LEU:CG	2:W:554:ARG:NH1	2.00	0.89
2:Y:408:SER:HA	2:Y:451:ASP:HB3	1.54	0.89
2:W:482:ASP:OD2	2:W:552:ASN:ND2	2.05	0.89
2:U:482:ASP:OD2	2:U:552:ASN:ND2	2.05	0.89
2:X:496:ARG:N	2:X:534:VAL:HG21	1.86	0.89
2:U:408:SER:HA	2:U:451:ASP:HB3	1.55	0.88
2:U:483:ASN:O	2:U:555:ARG:HD3	1.73	0.88
2:Z:483:ASN:O	2:Z:555:ARG:HD3	1.73	0.88
2:V:482:ASP:OD2	2:V:552:ASN:ND2	2.05	0.88
2:V:23:SER:CB	2:V:483:ASN:HB3	2.04	0.88
2:V:496:ARG:N	2:V:534:VAL:HG21	1.87	0.88
2:Y:483:ASN:O	2:Y:555:ARG:HD3	1.74	0.88
2:X:408:SER:HA	2:X:451:ASP:HB3	1.54	0.87
2:W:408:SER:HA	2:W:451:ASP:HB3	1.54	0.87
2:W:409:PRO:O	2:W:454:TYR:HE1	1.15	0.87
2:Z:41:ILE:HD11	2:Z:361:PHE:HB3	1.56	0.87
2:V:408:SER:HA	2:V:451:ASP:HB3	1.54	0.87
2:V:483:ASN:O	2:V:555:ARG:HD3	1.73	0.87
2:Y:481:THR:HG21	2:Y:496:ARG:CZ	2.03	0.87
2:X:409:PRO:O	2:X:454:TYR:HE1	1.16	0.87
2:W:496:ARG:N	2:W:534:VAL:HG21	1.86	0.87
2:V:481:THR:HG21	2:V:496:ARG:CZ	2.05	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:391:LYS:NZ	2:Y:440:ASN:ND2	2.22	0.87
2:X:483:ASN:O	2:X:555:ARG:HD3	1.74	0.87
2:W:483:ASN:O	2:W:555:ARG:HD3	1.73	0.87
2:W:505:LEU:HD13	2:W:525:VAL:HG11	1.56	0.87
2:X:41:ILE:HD11	2:X:361:PHE:HB3	1.57	0.87
2:U:41:ILE:HD11	2:U:361:PHE:HB3	1.56	0.87
2:U:23:SER:CB	2:U:483:ASN:HB3	2.04	0.87
2:Y:41:ILE:HD11	2:Y:361:PHE:HB3	1.57	0.87
2:X:23:SER:CB	2:X:483:ASN:HB3	2.04	0.87
2:V:41:ILE:HD11	2:V:361:PHE:HB3	1.57	0.87
2:X:391:LYS:NZ	2:X:440:ASN:ND2	2.23	0.87
2:V:391:LYS:NZ	2:V:440:ASN:ND2	2.23	0.87
2:W:23:SER:CB	2:W:483:ASN:HB3	2.04	0.87
2:Y:23:SER:CB	2:Y:483:ASN:HB3	2.05	0.86
2:U:391:LYS:NZ	2:U:440:ASN:ND2	2.23	0.86
2:W:41:ILE:HD11	2:W:361:PHE:HB3	1.57	0.86
2:Z:404:LEU:CG	2:Z:554:ARG:NH1	2.01	0.86
2:Y:524:PRO:HB2	2:Y:535:LEU:HD12	1.57	0.86
2:Z:517:LEU:HD12	2:Z:518:TYR:N	1.90	0.86
2:X:524:PRO:HB2	2:X:535:LEU:HD12	1.57	0.86
2:W:517:LEU:HB2	2:W:522:ILE:CG2	2.06	0.86
2:U:391:LYS:HE3	2:U:440:ASN:O	1.75	0.86
2:U:517:LEU:HD12	2:U:518:TYR:N	1.90	0.86
2:U:517:LEU:HB2	2:U:522:ILE:CG2	2.06	0.86
2:V:391:LYS:HE3	2:V:440:ASN:O	1.75	0.86
2:Z:23:SER:CB	2:Z:483:ASN:HB3	2.04	0.86
2:Z:517:LEU:HB2	2:Z:522:ILE:CG2	2.06	0.86
2:X:517:LEU:HD12	2:X:518:TYR:N	1.90	0.86
2:X:517:LEU:HB2	2:X:522:ILE:CG2	2.06	0.86
2:V:23:SER:OG	2:V:483:ASN:HB3	1.76	0.86
2:Y:517:LEU:HB2	2:Y:522:ILE:CG2	2.05	0.85
2:U:481:THR:HG21	2:U:496:ARG:CZ	2.06	0.85
2:X:391:LYS:HE3	2:X:440:ASN:O	1.77	0.85
2:V:517:LEU:HD12	2:V:518:TYR:N	1.91	0.85
2:Z:524:PRO:HB2	2:Z:535:LEU:HD12	1.58	0.85
2:Y:517:LEU:HD12	2:Y:518:TYR:N	1.90	0.85
2:W:391:LYS:HE3	2:W:440:ASN:O	1.76	0.85
2:Z:391:LYS:NZ	2:Z:440:ASN:ND2	2.23	0.85
2:Y:404:LEU:CG	2:Y:554:ARG:NH1	2.01	0.85
2:X:481:THR:HG21	2:X:496:ARG:CZ	2.05	0.85
2:Y:391:LYS:HE3	2:Y:440:ASN:O	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:391:LYS:NZ	2:W:440:ASN:ND2	2.23	0.85
2:Z:391:LYS:HE3	2:Z:440:ASN:O	1.76	0.85
2:U:23:SER:CB	2:U:483:ASN:CB	2.55	0.85
2:V:23:SER:CB	2:V:483:ASN:CB	2.55	0.85
2:W:517:LEU:HD12	2:W:518:TYR:N	1.91	0.85
2:Z:481:THR:HG21	2:Z:496:ARG:CZ	2.07	0.85
2:W:23:SER:OG	2:W:483:ASN:HB3	1.76	0.84
2:X:505:LEU:HD13	2:X:525:VAL:HG11	1.57	0.84
2:Z:23:SER:CB	2:Z:483:ASN:CB	2.55	0.84
2:W:23:SER:CB	2:W:483:ASN:CB	2.55	0.84
2:W:524:PRO:HB2	2:W:535:LEU:HD12	1.57	0.84
2:Y:23:SER:OG	2:Y:483:ASN:HB3	1.77	0.84
1:D:109:TYR:HB3	1:D:161:ARG:HH22	1.39	0.84
1:C:109:TYR:HB3	1:C:161:ARG:HH22	1.41	0.84
2:Y:505:LEU:HD13	2:Y:525:VAL:HG11	1.57	0.84
2:U:23:SER:OG	2:U:483:ASN:HB3	1.76	0.84
2:U:524:PRO:HB2	2:U:535:LEU:HD12	1.57	0.84
2:V:517:LEU:HB2	2:V:522:ILE:CG2	2.07	0.84
2:V:454:TYR:HE2	2:V:469:PRO:HA	1.43	0.84
2:V:627:PHE:CZ	2:V:640:LEU:HB3	2.13	0.84
2:Z:23:SER:OG	2:Z:483:ASN:HB3	1.76	0.84
2:V:568:SER:O	2:V:571:ARG:HG2	1.78	0.84
2:W:568:SER:O	2:W:571:ARG:HG2	1.78	0.84
2:X:23:SER:CB	2:X:483:ASN:CB	2.55	0.84
2:U:568:SER:O	2:U:571:ARG:HG2	1.78	0.84
2:X:568:SER:O	2:X:571:ARG:HG2	1.78	0.84
2:U:404:LEU:CG	2:U:554:ARG:NH1	2.00	0.84
2:U:627:PHE:CZ	2:U:640:LEU:HB3	2.12	0.84
2:V:524:PRO:HB2	2:V:535:LEU:HD12	1.58	0.84
2:Z:505:LEU:HD13	2:Z:525:VAL:HG11	1.57	0.84
2:V:404:LEU:CG	2:V:554:ARG:NH1	2.01	0.83
2:X:23:SER:OG	2:X:483:ASN:HB3	1.76	0.83
2:W:627:PHE:CZ	2:W:640:LEU:HB3	2.13	0.83
2:V:505:LEU:HD13	2:V:525:VAL:HG11	1.57	0.83
2:Z:94:PRO:HB2	2:Z:219:ILE:HD12	1.60	0.83
2:W:481:THR:HG21	2:W:496:ARG:CZ	2.08	0.83
2:W:454:TYR:HE2	2:W:469:PRO:HA	1.43	0.83
2:Z:568:SER:O	2:Z:571:ARG:HG2	1.78	0.83
2:Z:627:PHE:CZ	2:Z:640:LEU:HB3	2.12	0.83
2:U:505:LEU:HD13	2:U:525:VAL:HG11	1.57	0.83
2:V:391:LYS:HZ3	2:V:440:ASN:HD21	1.26	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:568:SER:O	2:Y:571:ARG:HG2	1.78	0.83
2:Y:627:PHE:CZ	2:Y:640:LEU:HB3	2.13	0.83
2:Z:331:PRO:HB2	2:Z:334:PHE:HB2	1.60	0.83
2:Y:622:GLU:CD	2:Y:645:THR:HA	1.99	0.83
2:W:94:PRO:HB2	2:W:219:ILE:HD12	1.61	0.83
1:A:109:TYR:HB3	1:A:161:ARG:HH22	1.44	0.83
2:U:454:TYR:HE2	2:U:469:PRO:HA	1.43	0.83
2:X:627:PHE:CZ	2:X:640:LEU:HB3	2.12	0.83
2:V:622:GLU:CD	2:V:645:THR:HA	1.99	0.83
2:Z:539:LYS:HE2	2:Z:541:ALA:HA	1.61	0.83
2:Y:23:SER:CB	2:Y:483:ASN:CB	2.56	0.83
2:U:331:PRO:HB2	2:U:334:PHE:HB2	1.60	0.83
2:Y:614:THR:HB	2:Y:620:ARG:HA	1.61	0.83
2:U:622:GLU:CD	2:U:645:THR:HA	1.99	0.82
2:V:614:THR:HB	2:V:620:ARG:HA	1.61	0.82
2:X:622:GLU:CD	2:X:645:THR:HA	1.99	0.82
2:X:94:PRO:HB2	2:X:219:ILE:HD12	1.61	0.82
2:V:539:LYS:HE2	2:V:541:ALA:HA	1.61	0.82
2:Z:614:THR:HB	2:Z:620:ARG:HA	1.61	0.82
2:W:622:GLU:CD	2:W:645:THR:HA	1.99	0.82
2:W:539:LYS:HE2	2:W:541:ALA:HA	1.61	0.82
2:U:614:THR:HB	2:U:620:ARG:HA	1.62	0.82
2:W:379:ALA:HB2	2:W:454:TYR:CZ	2.11	0.82
2:V:94:PRO:HB2	2:V:219:ILE:HD12	1.61	0.82
2:Y:331:PRO:HB2	2:Y:334:PHE:HB2	1.60	0.82
2:Z:622:GLU:CD	2:Z:645:THR:HA	2.00	0.82
2:X:614:THR:HB	2:X:620:ARG:HA	1.61	0.82
2:X:331:PRO:HB2	2:X:334:PHE:HB2	1.61	0.82
2:U:94:PRO:HB2	2:U:219:ILE:HD12	1.61	0.81
2:Z:454:TYR:HE2	2:Z:469:PRO:HA	1.43	0.81
2:W:496:ARG:N	2:W:534:VAL:CG1	2.43	0.81
1:B:109:TYR:HB3	1:B:161:ARG:HH22	1.45	0.81
2:V:110:TYR:CE1	2:V:178:LEU:O	2.34	0.81
2:W:391:LYS:HZ3	2:W:440:ASN:HD21	1.28	0.81
2:W:110:TYR:CE1	2:W:178:LEU:O	2.33	0.81
2:V:331:PRO:HB2	2:V:334:PHE:HB2	1.60	0.81
2:Y:94:PRO:HB2	2:Y:219:ILE:HD12	1.61	0.81
2:W:614:THR:HB	2:W:620:ARG:HA	1.62	0.81
2:X:110:TYR:CE1	2:X:178:LEU:O	2.33	0.81
2:U:110:TYR:CE1	2:U:178:LEU:O	2.33	0.81
2:X:496:ARG:N	2:X:534:VAL:CG1	2.44	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:496:ARG:N	2:Y:534:VAL:CG1	2.44	0.81
2:Z:110:TYR:CE1	2:Z:178:LEU:O	2.34	0.81
2:V:496:ARG:N	2:V:534:VAL:CG1	2.44	0.81
2:U:539:LYS:HE2	2:U:541:ALA:HA	1.62	0.81
2:X:547:PRO:O	2:X:553:VAL:HG22	1.81	0.81
2:Y:547:PRO:O	2:Y:553:VAL:HG22	1.81	0.80
2:Y:110:TYR:CE1	2:Y:178:LEU:O	2.33	0.80
2:V:524:PRO:HG2	2:V:535:LEU:CB	2.10	0.80
2:Y:539:LYS:HE2	2:Y:541:ALA:HA	1.63	0.80
2:X:524:PRO:CB	2:X:535:LEU:HD12	2.11	0.80
2:Z:496:ARG:N	2:Z:534:VAL:CG1	2.44	0.80
2:W:331:PRO:HB2	2:W:334:PHE:HB2	1.61	0.80
2:U:404:LEU:CD2	2:U:554:ARG:HH12	1.94	0.80
2:W:23:SER:CB	2:W:559:MET:SD	2.70	0.80
2:U:450:ILE:H	2:U:540:THR:CG2	1.95	0.80
2:Z:450:ILE:H	2:Z:540:THR:CG2	1.95	0.80
2:Y:524:PRO:CB	2:Y:535:LEU:HD12	2.12	0.80
2:X:23:SER:CB	2:X:559:MET:SD	2.70	0.80
2:W:547:PRO:O	2:W:553:VAL:HG22	1.81	0.80
2:U:524:PRO:CB	2:U:535:LEU:HD12	2.12	0.80
2:V:404:LEU:CD2	2:V:554:ARG:HH12	1.94	0.80
2:X:539:LYS:HE2	2:X:541:ALA:HA	1.61	0.80
2:W:23:SER:HB3	2:W:559:MET:SD	2.22	0.80
2:V:379:ALA:HB2	2:V:454:TYR:CZ	2.11	0.80
2:Z:547:PRO:O	2:Z:553:VAL:HG22	1.81	0.80
2:Z:23:SER:HB3	2:Z:559:MET:SD	2.22	0.80
2:V:450:ILE:H	2:V:540:THR:CG2	1.95	0.80
2:W:524:PRO:HG2	2:W:535:LEU:CB	2.10	0.80
2:U:404:LEU:HG	2:U:554:ARG:HH11	1.45	0.80
2:V:547:PRO:O	2:V:553:VAL:HG22	1.82	0.80
2:X:23:SER:HB3	2:X:559:MET:SD	2.22	0.80
2:Y:481:THR:CG2	2:Y:496:ARG:NH2	2.44	0.80
2:V:505:LEU:HD11	2:V:525:VAL:HG11	1.64	0.80
2:X:505:LEU:HD11	2:X:525:VAL:HG11	1.64	0.80
2:U:547:PRO:O	2:U:553:VAL:HG22	1.81	0.80
2:Z:404:LEU:CD2	2:Z:554:ARG:HH12	1.94	0.80
2:Z:23:SER:CB	2:Z:559:MET:SD	2.70	0.80
2:Y:450:ILE:H	2:Y:540:THR:CG2	1.95	0.79
2:W:112:VAL:O	2:W:112:VAL:HG12	1.81	0.79
2:V:524:PRO:CB	2:V:535:LEU:HD12	2.12	0.79
2:W:524:PRO:CB	2:W:535:LEU:HD12	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:23:SER:CB	2:V:559:MET:SD	2.70	0.79
2:Z:524:PRO:CB	2:Z:535:LEU:HD12	2.12	0.79
2:X:450:ILE:H	2:X:540:THR:CG2	1.95	0.79
2:W:404:LEU:CD2	2:W:554:ARG:HH12	1.94	0.79
2:U:23:SER:CB	2:U:559:MET:SD	2.70	0.79
2:Z:23:SER:HB3	2:Z:483:ASN:HB3	1.64	0.79
2:U:23:SER:HB3	2:U:559:MET:SD	2.22	0.79
2:W:450:ILE:H	2:W:540:THR:CG2	1.95	0.79
2:U:496:ARG:N	2:U:534:VAL:CG1	2.44	0.79
2:Z:524:PRO:HG2	2:Z:535:LEU:CB	2.10	0.79
2:Y:404:LEU:CD2	2:Y:554:ARG:HH12	1.94	0.79
2:V:112:VAL:O	2:V:112:VAL:HG12	1.82	0.79
2:Z:112:VAL:HG12	2:Z:112:VAL:O	1.81	0.79
2:Z:450:ILE:HG22	2:Z:540:THR:HG22	1.65	0.79
2:V:505:LEU:CD1	2:V:525:VAL:CG1	2.61	0.79
2:X:112:VAL:HG12	2:X:112:VAL:O	1.82	0.79
2:Y:112:VAL:HG12	2:Y:112:VAL:O	1.82	0.79
2:U:112:VAL:HG12	2:U:112:VAL:O	1.81	0.79
2:Y:614:THR:CB	2:Y:620:ARG:HA	2.13	0.79
2:V:23:SER:HB3	2:V:483:ASN:HB3	1.64	0.79
2:X:404:LEU:CG	2:X:554:ARG:NH1	2.00	0.79
2:Y:479:ALA:HA	2:Y:484:VAL:HG11	1.65	0.79
2:V:23:SER:HB3	2:V:559:MET:SD	2.22	0.78
2:X:23:SER:HB3	2:X:483:ASN:HB3	1.64	0.78
2:V:614:THR:CB	2:V:620:ARG:HA	2.13	0.78
2:Z:614:THR:CB	2:Z:620:ARG:HA	2.13	0.78
2:X:479:ALA:HA	2:X:484:VAL:HG11	1.65	0.78
2:U:450:ILE:HG22	2:U:540:THR:HG22	1.66	0.78
2:X:481:THR:CG2	2:X:496:ARG:NH2	2.46	0.78
2:X:524:PRO:HG2	2:X:535:LEU:CB	2.10	0.78
2:Y:23:SER:CB	2:Y:559:MET:SD	2.71	0.78
2:Y:23:SER:HB3	2:Y:559:MET:SD	2.23	0.78
2:V:379:ALA:HB1	2:V:454:TYR:OH	1.73	0.78
2:X:404:LEU:CD2	2:X:554:ARG:HH12	1.95	0.78
2:W:505:LEU:HD11	2:W:525:VAL:HG11	1.64	0.78
2:U:23:SER:HB3	2:U:483:ASN:HB3	1.64	0.78
2:Y:505:LEU:HD11	2:Y:525:VAL:HG11	1.65	0.78
2:U:614:THR:CB	2:U:620:ARG:HA	2.13	0.78
2:U:446:THR:CG2	2:U:542:THR:HG21	2.07	0.78
2:X:450:ILE:HG22	2:X:540:THR:HG22	1.65	0.78
2:U:481:THR:CG2	2:U:496:ARG:NH2	2.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:178:LEU:H	2:Z:178:LEU:HD23	1.48	0.78
2:Y:446:THR:CG2	2:Y:542:THR:HG21	2.07	0.78
2:W:23:SER:HB3	2:W:483:ASN:HB3	1.64	0.78
2:X:505:LEU:CD1	2:X:525:VAL:CG1	2.61	0.78
2:X:614:THR:CB	2:X:620:ARG:HA	2.13	0.78
2:W:614:THR:CB	2:W:620:ARG:HA	2.13	0.78
2:X:178:LEU:HD23	2:X:178:LEU:H	1.48	0.78
2:V:404:LEU:HG	2:V:554:ARG:HH11	1.47	0.78
2:Z:505:LEU:HD11	2:Z:525:VAL:HG11	1.65	0.78
2:W:178:LEU:HD23	2:W:178:LEU:H	1.48	0.78
2:U:407:CYS:O	2:U:451:ASP:CB	2.32	0.78
2:W:450:ILE:HG22	2:W:540:THR:HG22	1.66	0.78
2:V:595:ASN:HB2	2:V:601:ILE:HD12	1.66	0.78
2:Z:479:ALA:HA	2:Z:484:VAL:HG11	1.65	0.78
2:U:379:ALA:HB2	2:U:454:TYR:CZ	2.11	0.77
2:Z:407:CYS:O	2:Z:451:ASP:CB	2.32	0.77
2:Y:454:TYR:CE2	2:Y:469:PRO:CA	2.67	0.77
2:Y:178:LEU:HD23	2:Y:178:LEU:H	1.48	0.77
2:W:479:ALA:HA	2:W:484:VAL:HG11	1.65	0.77
2:V:407:CYS:O	2:V:451:ASP:HB2	1.84	0.77
2:Z:407:CYS:O	2:Z:451:ASP:HB2	1.84	0.77
2:Z:450:ILE:HG22	2:Z:540:THR:CG2	2.15	0.77
2:X:449:ALA:HA	2:X:540:THR:HG23	1.66	0.77
2:W:449:ALA:HA	2:W:540:THR:HG23	1.67	0.77
2:U:178:LEU:HD23	2:U:178:LEU:H	1.48	0.77
2:Z:595:ASN:HB2	2:Z:601:ILE:HD12	1.67	0.77
2:V:446:THR:CG2	2:V:542:THR:HG21	2.07	0.77
2:X:404:LEU:HG	2:X:554:ARG:HH11	1.45	0.77
2:U:171:ILE:HG22	2:U:172:SER:H	1.50	0.77
2:U:84:VAL:HG13	2:U:85:ASP:O	1.85	0.77
2:U:407:CYS:O	2:U:451:ASP:HB2	1.85	0.77
2:U:454:TYR:CE2	2:U:469:PRO:CA	2.68	0.77
2:Z:451:ASP:OD1	2:Z:474:ILE:HD13	1.85	0.77
2:Y:407:CYS:O	2:Y:451:ASP:CB	2.33	0.77
2:W:407:CYS:O	2:W:451:ASP:CB	2.32	0.77
2:U:595:ASN:HB2	2:U:601:ILE:HD12	1.67	0.77
2:V:518:TYR:OH	2:V:535:LEU:HB3	1.85	0.77
2:Z:404:LEU:HG	2:Z:554:ARG:HH11	1.46	0.77
2:X:557:PHE:CZ	2:X:638:ILE:HG22	2.20	0.77
2:W:557:PHE:CZ	2:W:638:ILE:HG22	2.20	0.77
2:Z:505:LEU:CD1	2:Z:525:VAL:CG1	2.61	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:407:CYS:O	2:V:451:ASP:CB	2.32	0.77
2:W:407:CYS:O	2:W:451:ASP:HB2	1.84	0.77
2:Z:171:ILE:HG22	2:Z:172:SER:H	1.50	0.77
2:W:454:TYR:CE2	2:W:469:PRO:CA	2.67	0.77
2:Y:23:SER:HB3	2:Y:483:ASN:HB3	1.65	0.77
2:U:505:LEU:HD11	2:U:525:VAL:HG11	1.64	0.77
2:X:171:ILE:HG22	2:X:172:SER:H	1.50	0.77
2:X:84:VAL:HG13	2:X:85:ASP:O	1.85	0.77
2:V:479:ALA:HA	2:V:484:VAL:HG11	1.65	0.77
2:V:171:ILE:HG22	2:V:172:SER:H	1.50	0.77
2:U:518:TYR:OH	2:U:535:LEU:HB3	1.85	0.76
2:V:481:THR:CG2	2:V:496:ARG:NH2	2.47	0.76
2:Y:84:VAL:HG13	2:Y:85:ASP:O	1.85	0.76
2:X:451:ASP:OD1	2:X:474:ILE:HD13	1.85	0.76
2:W:450:ILE:HG22	2:W:540:THR:CG2	2.15	0.76
2:W:595:ASN:HB2	2:W:601:ILE:HD12	1.66	0.76
2:U:479:ALA:HA	2:U:484:VAL:HG11	1.65	0.76
2:U:451:ASP:OD1	2:U:474:ILE:HD13	1.85	0.76
2:U:557:PHE:CZ	2:U:638:ILE:HG22	2.20	0.76
2:Z:379:ALA:HB2	2:Z:454:TYR:CZ	2.11	0.76
2:Z:557:PHE:CZ	2:Z:638:ILE:HG22	2.20	0.76
2:Y:518:TYR:OH	2:Y:535:LEU:HB3	1.85	0.76
2:X:450:ILE:HG22	2:X:540:THR:CG2	2.15	0.76
2:Y:557:PHE:CZ	2:Y:638:ILE:HG22	2.20	0.76
2:W:570:TYR:HD2	2:W:584:PHE:CE2	2.04	0.76
2:Y:178:LEU:CD2	2:Y:178:LEU:H	1.98	0.76
2:Z:84:VAL:HG13	2:Z:85:ASP:O	1.85	0.76
2:V:450:ILE:HG22	2:V:540:THR:HG22	1.66	0.76
2:V:449:ALA:HA	2:V:540:THR:HG23	1.67	0.76
2:V:557:PHE:CZ	2:V:638:ILE:HG22	2.21	0.76
2:Z:449:ALA:HA	2:Z:540:THR:HG23	1.67	0.76
2:Y:450:ILE:HG22	2:Y:540:THR:HG22	1.66	0.76
2:X:518:TYR:OH	2:X:535:LEU:HB3	1.85	0.76
2:V:178:LEU:H	2:V:178:LEU:HD23	1.48	0.76
2:V:84:VAL:HG13	2:V:85:ASP:O	1.85	0.76
2:U:449:ALA:HA	2:U:540:THR:HG23	1.67	0.76
2:V:450:ILE:H	2:V:540:THR:HG23	1.51	0.76
2:Z:518:TYR:OH	2:Z:535:LEU:HB3	1.85	0.76
2:Z:446:THR:CG2	2:Z:542:THR:HG21	2.07	0.76
2:Y:524:PRO:HG2	2:Y:535:LEU:CB	2.10	0.76
2:W:451:ASP:OD1	2:W:474:ILE:HD13	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:505:LEU:CD1	2:U:525:VAL:CG1	2.61	0.76
2:U:450:ILE:HG22	2:U:540:THR:CG2	2.16	0.76
2:Y:450:ILE:HG22	2:Y:540:THR:CG2	2.15	0.76
2:Y:449:ALA:HA	2:Y:540:THR:HG23	1.67	0.76
2:W:505:LEU:CD1	2:W:525:VAL:CG1	2.60	0.76
2:V:570:TYR:HD2	2:V:584:PHE:CE2	2.03	0.76
2:U:110:TYR:HE1	2:U:178:LEU:O	1.69	0.76
2:Y:110:TYR:HE1	2:Y:178:LEU:O	1.69	0.76
2:X:407:CYS:O	2:X:451:ASP:CB	2.32	0.76
2:U:628:TYR:HD2	2:U:639:THR:HG22	1.51	0.76
2:V:628:TYR:HD2	2:V:639:THR:HG22	1.50	0.76
2:Y:171:ILE:HG22	2:Y:172:SER:H	1.50	0.76
2:Y:595:ASN:HB2	2:Y:601:ILE:HD12	1.66	0.76
2:Y:407:CYS:O	2:Y:451:ASP:HB2	1.85	0.76
2:W:518:TYR:OH	2:W:535:LEU:HB3	1.85	0.76
2:Z:427:VAL:CG1	2:Z:516:ARG:HH21	1.93	0.76
2:Z:628:TYR:HD2	2:Z:639:THR:HG22	1.50	0.76
2:X:110:TYR:HE1	2:X:178:LEU:O	1.68	0.76
2:W:171:ILE:HG22	2:W:172:SER:H	1.50	0.76
2:V:450:ILE:HG22	2:V:540:THR:CG2	2.15	0.76
2:Z:178:LEU:H	2:Z:178:LEU:CD2	1.99	0.76
2:Z:24:THR:O	2:Z:371:GLN:OE1	2.04	0.76
2:W:84:VAL:HG13	2:W:85:ASP:O	1.85	0.76
2:W:404:LEU:HG	2:W:554:ARG:HH11	1.45	0.75
2:W:450:ILE:H	2:W:540:THR:HG23	1.51	0.75
2:Z:481:THR:CG2	2:Z:496:ARG:NH2	2.49	0.75
2:Y:505:LEU:CD1	2:Y:525:VAL:CG1	2.61	0.75
2:U:24:THR:O	2:U:371:GLN:OE1	2.03	0.75
2:X:446:THR:CG2	2:X:542:THR:HG21	2.07	0.75
2:X:112:VAL:O	2:X:131:ILE:O	2.04	0.75
2:Y:570:TYR:HD2	2:Y:584:PHE:CE2	2.03	0.75
2:U:570:TYR:HD2	2:U:584:PHE:CE2	2.03	0.75
2:X:407:CYS:O	2:X:451:ASP:HB2	1.85	0.75
2:X:454:TYR:CE2	2:X:469:PRO:CA	2.67	0.75
2:X:517:LEU:CD1	2:X:524:PRO:HG3	2.17	0.75
2:W:110:TYR:HE1	2:W:178:LEU:O	1.69	0.75
2:V:451:ASP:OD1	2:V:474:ILE:HD13	1.86	0.75
2:Z:454:TYR:CE2	2:Z:469:PRO:CA	2.67	0.75
2:X:450:ILE:H	2:X:540:THR:HG23	1.51	0.75
2:W:517:LEU:CD1	2:W:524:PRO:HG3	2.16	0.75
2:Z:570:TYR:HD2	2:Z:584:PHE:CE2	2.04	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:178:LEU:CD2	2:W:178:LEU:H	1.98	0.75
2:V:24:THR:O	2:V:371:GLN:OE1	2.04	0.75
2:Y:404:LEU:HG	2:Y:554:ARG:HH11	1.46	0.75
2:Y:450:ILE:H	2:Y:540:THR:HG23	1.51	0.75
2:Y:451:ASP:OD1	2:Y:474:ILE:HD13	1.86	0.75
2:W:481:THR:CG2	2:W:496:ARG:NH2	2.50	0.75
2:V:112:VAL:O	2:V:131:ILE:O	2.04	0.75
2:U:178:LEU:CD2	2:U:178:LEU:H	1.98	0.75
2:V:110:TYR:HE1	2:V:178:LEU:O	1.70	0.75
2:X:26:THR:HA	2:X:77:ASP:OD1	1.87	0.75
2:V:22:ASN:O	2:V:23:SER:OG	2.04	0.75
2:U:112:VAL:O	2:U:131:ILE:O	2.05	0.75
2:X:595:ASN:HB2	2:X:601:ILE:HD12	1.67	0.75
2:V:517:LEU:CD1	2:V:524:PRO:HG3	2.16	0.75
2:Z:450:ILE:H	2:Z:540:THR:HG23	1.51	0.75
2:Y:628:TYR:HD2	2:Y:639:THR:HG22	1.51	0.75
2:X:178:LEU:CD2	2:X:178:LEU:H	1.98	0.75
2:Z:26:THR:HA	2:Z:77:ASP:OD1	1.87	0.75
2:W:24:THR:O	2:W:371:GLN:OE1	2.04	0.75
2:U:450:ILE:H	2:U:540:THR:HG23	1.50	0.74
2:Y:517:LEU:CD1	2:Y:524:PRO:HG3	2.17	0.74
2:X:570:TYR:HD2	2:X:584:PHE:CE2	2.04	0.74
2:X:24:THR:O	2:X:371:GLN:OE1	2.04	0.74
2:U:524:PRO:HG2	2:U:535:LEU:CB	2.10	0.74
2:V:178:LEU:H	2:V:178:LEU:CD2	1.98	0.74
2:V:26:THR:HA	2:V:77:ASP:OD1	1.87	0.74
2:U:517:LEU:CD1	2:U:524:PRO:HG3	2.16	0.74
2:W:627:PHE:CZ	2:W:640:LEU:HD23	2.23	0.74
2:Y:112:VAL:O	2:Y:131:ILE:O	2.04	0.74
2:Z:112:VAL:O	2:Z:131:ILE:O	2.04	0.74
2:Y:24:THR:O	2:Y:371:GLN:OE1	2.04	0.74
2:W:26:THR:HA	2:W:77:ASP:OD1	1.87	0.74
2:U:22:ASN:O	2:U:23:SER:OG	2.04	0.74
2:Z:22:ASN:O	2:Z:23:SER:OG	2.04	0.74
2:Z:517:LEU:CD1	2:Z:524:PRO:HG3	2.16	0.74
2:W:112:VAL:O	2:W:131:ILE:O	2.04	0.74
2:Z:110:TYR:HE1	2:Z:178:LEU:O	1.69	0.74
2:U:523:ASN:HD21	2:U:538:ASP:HB3	1.52	0.74
2:V:521:ALA:HB1	2:V:540:THR:HA	1.70	0.74
2:Y:427:VAL:CG1	2:Y:516:ARG:HH21	1.94	0.74
2:U:391:LYS:HZ3	2:U:440:ASN:HD21	1.36	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:26:THR:HA	2:Y:77:ASP:OD1	1.88	0.74
2:X:556:LEU:HD23	2:X:560:LEU:CD2	2.18	0.74
2:W:409:PRO:O	2:W:454:TYR:OH	2.06	0.74
2:Z:391:LYS:HZ1	2:Z:440:ASN:ND2	1.84	0.74
2:W:409:PRO:HD2	2:W:451:ASP:O	1.88	0.74
2:W:446:THR:CG2	2:W:542:THR:HG21	2.07	0.74
2:X:391:LYS:HZ3	2:X:440:ASN:HD21	1.34	0.74
2:Y:454:TYR:HE2	2:Y:469:PRO:HA	1.43	0.74
2:X:628:TYR:HD2	2:X:639:THR:HG22	1.50	0.74
2:W:112:VAL:O	2:W:112:VAL:HG13	1.88	0.74
2:U:26:THR:HA	2:U:77:ASP:OD1	1.87	0.74
2:Z:409:PRO:O	2:Z:454:TYR:OH	2.06	0.74
2:Z:627:PHE:CZ	2:Z:640:LEU:HD23	2.23	0.74
2:Y:409:PRO:O	2:Y:454:TYR:OH	2.06	0.74
2:V:627:PHE:CZ	2:V:640:LEU:HD23	2.23	0.73
2:X:523:ASN:HD21	2:X:538:ASP:HB3	1.53	0.73
2:X:627:PHE:CZ	2:X:640:LEU:HD23	2.22	0.73
2:X:454:TYR:HE2	2:X:469:PRO:HA	1.43	0.73
2:W:496:ARG:O	2:W:496:ARG:HG3	1.88	0.73
2:W:521:ALA:HB1	2:W:540:THR:HA	1.70	0.73
2:W:556:LEU:HD23	2:W:560:LEU:CD2	2.18	0.73
2:Z:556:LEU:HD23	2:Z:560:LEU:CD2	2.18	0.73
2:Y:627:PHE:CZ	2:Y:640:LEU:HD23	2.23	0.73
2:V:409:PRO:O	2:V:454:TYR:OH	2.06	0.73
2:Z:517:LEU:HD22	2:Z:524:PRO:HB3	1.71	0.73
2:Y:556:LEU:HD23	2:Y:560:LEU:CD2	2.19	0.73
1:F:108:GLN:HB3	1:F:200:PRO:HD2	1.70	0.73
2:V:526:THR:CG2	2:V:535:LEU:HD11	2.19	0.73
2:V:564:ILE:HD11	2:V:642:PHE:HB2	1.71	0.73
2:Y:391:LYS:HZ3	2:Y:440:ASN:HD21	1.36	0.73
2:Z:410:PRO:O	2:Z:413:THR:HG22	1.89	0.73
2:Y:410:PRO:O	2:Y:413:THR:HG22	1.89	0.73
2:U:564:ILE:HD11	2:U:642:PHE:HB2	1.71	0.73
2:V:409:PRO:HD2	2:V:451:ASP:O	1.88	0.73
2:V:112:VAL:O	2:V:112:VAL:HG13	1.88	0.73
2:U:172:SER:C	2:U:174:SER:HA	2.09	0.73
2:V:454:TYR:CE2	2:V:469:PRO:CA	2.67	0.73
2:W:526:THR:CG2	2:W:535:LEU:HD11	2.19	0.73
2:Y:22:ASN:O	2:Y:23:SER:OG	2.04	0.73
2:Y:51:VAL:HG13	2:Y:55:GLY:O	1.89	0.73
2:X:51:VAL:HG13	2:X:55:GLY:O	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:172:SER:C	2:W:174:SER:HA	2.09	0.73
2:V:517:LEU:HD22	2:V:524:PRO:HB3	1.71	0.72
2:V:556:LEU:HD23	2:V:560:LEU:CD2	2.18	0.72
2:X:517:LEU:O	2:X:520:GLU:HB3	1.89	0.72
2:X:172:SER:C	2:X:174:SER:HA	2.10	0.72
2:Z:526:THR:CG2	2:Z:535:LEU:HD21	2.18	0.72
2:Z:523:ASN:HD21	2:Z:538:ASP:HB3	1.53	0.72
2:W:523:ASN:HD21	2:W:538:ASP:HB3	1.53	0.72
2:Z:112:VAL:HG13	2:Z:112:VAL:O	1.88	0.72
2:V:526:THR:CG2	2:V:535:LEU:HD21	2.19	0.72
2:Y:379:ALA:HB2	2:Y:454:TYR:CZ	2.12	0.72
2:X:409:PRO:O	2:X:454:TYR:OH	2.06	0.72
2:X:379:ALA:HB2	2:X:454:TYR:CZ	2.12	0.72
2:U:382:SER:HB2	2:U:385:THR:HG22	1.71	0.72
2:U:483:ASN:O	2:U:555:ARG:CD	2.38	0.72
2:U:627:PHE:CZ	2:U:640:LEU:HD23	2.23	0.72
2:W:526:THR:CG2	2:W:535:LEU:HD21	2.19	0.72
2:W:51:VAL:HG13	2:W:55:GLY:O	1.89	0.72
2:U:409:PRO:O	2:U:454:TYR:OH	2.06	0.72
2:U:526:THR:CG2	2:U:535:LEU:HD21	2.19	0.72
2:U:556:LEU:HD23	2:U:560:LEU:CD2	2.19	0.72
2:V:630:GLN:HG3	2:V:636:ASN:O	1.90	0.72
2:Y:112:VAL:HG13	2:Y:112:VAL:O	1.88	0.72
2:U:112:VAL:HG13	2:U:112:VAL:O	1.87	0.72
2:Y:172:SER:C	2:Y:174:SER:HA	2.10	0.72
2:U:517:LEU:O	2:U:520:GLU:HB3	1.90	0.72
2:U:526:THR:CG2	2:U:535:LEU:HD11	2.19	0.72
2:Y:526:THR:CG2	2:Y:535:LEU:HD11	2.19	0.72
2:V:51:VAL:HG13	2:V:55:GLY:O	1.90	0.72
2:Z:172:SER:C	2:Z:174:SER:HA	2.09	0.72
2:V:172:SER:C	2:V:174:SER:HA	2.10	0.72
2:Y:413:THR:HG23	2:Y:414:VAL:HG23	1.72	0.72
2:Z:590:GLN:O	2:Z:593:GLN:HG3	1.90	0.72
2:Z:382:SER:HB2	2:Z:385:THR:HG22	1.71	0.72
2:V:483:ASN:O	2:V:555:ARG:CD	2.37	0.72
2:V:517:LEU:O	2:V:520:GLU:HB3	1.89	0.72
2:V:514:ARG:HG3	2:V:535:LEU:CD1	2.20	0.72
2:Z:564:ILE:HD11	2:Z:642:PHE:HB2	1.72	0.72
2:Y:521:ALA:HB1	2:Y:540:THR:HA	1.70	0.72
2:W:517:LEU:O	2:W:520:GLU:HB3	1.89	0.72
2:Y:382:SER:HB2	2:Y:385:THR:HG22	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:521:ALA:HB1	2:U:540:THR:HA	1.70	0.72
2:Z:483:ASN:O	2:Z:555:ARG:CD	2.37	0.72
2:Z:499:ILE:HD13	2:Z:499:ILE:H	1.55	0.72
2:Z:526:THR:CG2	2:Z:535:LEU:HD11	2.19	0.72
2:Y:517:LEU:O	2:Y:520:GLU:HB3	1.90	0.72
2:Z:51:VAL:HG13	2:Z:55:GLY:O	1.89	0.72
2:X:112:VAL:HG13	2:X:112:VAL:O	1.88	0.72
2:V:391:LYS:HZ3	2:V:440:ASN:ND2	1.87	0.72
2:X:413:THR:HG23	2:X:414:VAL:HG23	1.72	0.72
2:Y:523:ASN:HD21	2:Y:538:ASP:HB3	1.53	0.72
2:Y:564:ILE:HD11	2:Y:642:PHE:HB2	1.71	0.72
2:W:517:LEU:HD22	2:W:524:PRO:HB3	1.71	0.72
2:W:630:GLN:HG3	2:W:636:ASN:O	1.90	0.72
2:W:564:ILE:HD11	2:W:642:PHE:HB2	1.72	0.72
2:Z:496:ARG:O	2:Z:496:ARG:HG3	1.88	0.72
2:X:427:VAL:CG1	2:X:516:ARG:HH21	1.93	0.72
2:Y:483:ASN:O	2:Y:555:ARG:CD	2.38	0.72
2:U:557:PHE:CE1	2:U:629:ILE:HB	2.25	0.71
2:Y:379:ALA:HB1	2:Y:454:TYR:OH	1.73	0.71
2:W:483:ASN:O	2:W:555:ARG:CD	2.37	0.71
2:U:454:TYR:HD2	2:U:469:PRO:HA	1.53	0.71
2:X:499:ILE:H	2:X:499:ILE:HD13	1.55	0.71
2:Y:590:GLN:O	2:Y:593:GLN:HG3	1.90	0.71
2:Z:547:PRO:O	2:Z:553:VAL:CG2	2.39	0.71
2:X:483:ASN:O	2:X:555:ARG:CD	2.38	0.71
2:Y:630:GLN:HG3	2:Y:636:ASN:O	1.90	0.71
2:Z:413:THR:HG23	2:Z:414:VAL:HG23	1.72	0.71
2:Y:614:THR:HG21	2:Y:619:ASP:O	1.91	0.71
2:W:583:SER:O	2:W:586:THR:HG22	1.90	0.71
2:V:36:GLY:HA2	2:V:82:ARG:HD2	1.73	0.71
2:U:410:PRO:O	2:U:413:THR:HG22	1.89	0.71
2:U:517:LEU:HD22	2:U:524:PRO:HB3	1.72	0.71
2:V:454:TYR:HE2	2:V:469:PRO:CA	2.03	0.71
2:V:557:PHE:CE1	2:V:629:ILE:HB	2.26	0.71
2:Z:557:PHE:CE1	2:Z:629:ILE:HB	2.26	0.71
2:X:23:SER:CB	2:X:483:ASN:HB2	2.21	0.71
2:X:526:THR:CG2	2:X:535:LEU:HD11	2.20	0.71
2:X:521:ALA:HB1	2:X:540:THR:HA	1.70	0.71
2:X:630:GLN:HG3	2:X:636:ASN:O	1.90	0.71
2:Y:496:ARG:HG3	2:Y:496:ARG:O	1.90	0.71
2:V:614:THR:HG21	2:V:619:ASP:O	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:614:THR:HG21	2:Z:619:ASP:O	1.90	0.71
2:Z:36:GLY:HA2	2:Z:82:ARG:HD2	1.72	0.71
2:X:590:GLN:O	2:X:593:GLN:HG3	1.90	0.71
2:Z:517:LEU:O	2:Z:520:GLU:HB3	1.89	0.71
2:Y:454:TYR:HE2	2:Y:469:PRO:CA	2.03	0.71
2:Y:517:LEU:HD22	2:Y:524:PRO:HB3	1.70	0.71
2:X:526:THR:CG2	2:X:535:LEU:HD21	2.20	0.71
2:X:564:ILE:HD11	2:X:642:PHE:HB2	1.71	0.71
2:V:382:SER:HB2	2:V:385:THR:HG22	1.71	0.71
2:X:31:GLY:HA3	2:X:64:TYR:CD2	2.25	0.71
2:W:382:SER:HB2	2:W:385:THR:HG22	1.71	0.71
2:U:630:GLN:HG3	2:U:636:ASN:O	1.90	0.71
2:U:614:THR:HG21	2:U:619:ASP:O	1.90	0.71
2:X:410:PRO:O	2:X:413:THR:HG22	1.90	0.71
2:Y:114:ASP:OD2	2:Y:175:SER:HB2	1.91	0.71
2:U:36:GLY:HA2	2:U:82:ARG:HD2	1.73	0.71
2:U:499:ILE:HD13	2:U:499:ILE:H	1.55	0.71
2:U:547:PRO:O	2:U:553:VAL:CG2	2.39	0.71
2:Z:454:TYR:HE2	2:Z:469:PRO:CA	2.03	0.71
2:Z:521:ALA:HB1	2:Z:540:THR:HA	1.71	0.71
2:X:517:LEU:HD22	2:X:524:PRO:HB3	1.71	0.71
2:X:557:PHE:CE1	2:X:629:ILE:HB	2.26	0.71
2:V:576:ASN:HB3	2:V:620:ARG:HH22	1.56	0.71
2:W:31:GLY:HA3	2:W:64:TYR:CD2	2.25	0.71
2:V:583:SER:O	2:V:586:THR:HG22	1.91	0.71
2:V:410:PRO:O	2:V:413:THR:HG22	1.89	0.71
2:U:394:VAL:HG11	2:U:443:ILE:HD12	1.72	0.71
2:W:410:PRO:O	2:W:413:THR:HG22	1.89	0.71
2:Y:31:GLY:HA3	2:Y:64:TYR:CD2	2.25	0.71
2:V:556:LEU:O	2:V:560:LEU:HD23	1.91	0.71
2:Z:521:ALA:HB1	2:Z:539:LYS:O	1.91	0.71
2:W:454:TYR:HE2	2:W:469:PRO:CA	2.03	0.71
2:Y:556:LEU:O	2:Y:560:LEU:HD23	1.91	0.71
2:U:583:SER:O	2:U:586:THR:HG22	1.91	0.71
2:U:590:GLN:O	2:U:593:GLN:HG3	1.90	0.71
2:Y:36:GLY:HA2	2:Y:82:ARG:HD2	1.72	0.71
2:U:406:LEU:HD11	2:U:475:ALA:HB2	1.73	0.71
2:U:556:LEU:O	2:U:560:LEU:HD23	1.91	0.71
2:Y:526:THR:CG2	2:Y:535:LEU:HD21	2.19	0.71
2:Y:557:PHE:CE1	2:Y:629:ILE:HB	2.26	0.71
2:U:51:VAL:HG13	2:U:55:GLY:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:114:ASP:OD2	2:X:175:SER:HB2	1.91	0.71
2:W:36:GLY:HA2	2:W:82:ARG:HD2	1.72	0.71
2:Z:514:ARG:HG3	2:Z:535:LEU:CD1	2.20	0.70
2:Z:630:GLN:HG3	2:Z:636:ASN:O	1.90	0.70
2:Y:521:ALA:HB1	2:Y:539:LYS:O	1.91	0.70
2:W:23:SER:CB	2:W:483:ASN:HB2	2.21	0.70
2:W:51:VAL:CA	2:W:55:GLY:HA2	2.19	0.70
2:X:382:SER:HB2	2:X:385:THR:HG22	1.71	0.70
2:U:454:TYR:HE2	2:U:469:PRO:CA	2.03	0.70
2:U:521:ALA:HB1	2:U:539:LYS:O	1.91	0.70
2:V:547:PRO:O	2:V:553:VAL:CG2	2.39	0.70
2:Z:23:SER:CB	2:Z:483:ASN:HB2	2.21	0.70
2:Z:556:LEU:O	2:Z:560:LEU:HD23	1.91	0.70
2:Y:499:ILE:HD13	2:Y:499:ILE:H	1.55	0.70
2:X:496:ARG:HG3	2:X:496:ARG:O	1.90	0.70
2:Y:23:SER:CB	2:Y:483:ASN:HB2	2.21	0.70
2:Y:391:LYS:HZ1	2:Y:440:ASN:ND2	1.88	0.70
2:X:583:SER:O	2:X:586:THR:HG22	1.91	0.70
2:X:483:ASN:O	2:X:555:ARG:CG	2.39	0.70
2:W:483:ASN:O	2:W:555:ARG:CG	2.39	0.70
2:W:614:THR:HG21	2:W:619:ASP:O	1.91	0.70
2:X:47:GLU:HG3	2:X:69:MET:HG3	1.73	0.70
2:Y:583:SER:O	2:Y:586:THR:HG22	1.91	0.70
2:Y:547:PRO:O	2:Y:553:VAL:CG2	2.39	0.70
2:X:614:THR:HG21	2:X:619:ASP:O	1.91	0.70
2:U:413:THR:HG23	2:U:414:VAL:HG23	1.72	0.70
2:U:31:GLY:HA3	2:U:64:TYR:CD2	2.25	0.70
2:U:114:ASP:OD2	2:U:175:SER:HB2	1.91	0.70
2:V:394:VAL:HG11	2:V:443:ILE:HD12	1.72	0.70
2:Z:31:GLY:HA3	2:Z:64:TYR:CD2	2.26	0.70
2:Z:454:TYR:HD2	2:Z:469:PRO:HA	1.53	0.70
2:Y:406:LEU:HD11	2:Y:475:ALA:HB2	1.73	0.70
2:W:547:PRO:O	2:W:553:VAL:CG2	2.39	0.70
2:V:496:ARG:O	2:V:496:ARG:HG3	1.89	0.70
2:W:413:THR:HG23	2:W:414:VAL:HG23	1.72	0.70
2:V:590:GLN:O	2:V:593:GLN:HG3	1.90	0.70
2:U:559:MET:O	2:U:562:THR:HG22	1.92	0.70
2:Z:406:LEU:HD11	2:Z:475:ALA:HB2	1.74	0.70
2:X:22:ASN:O	2:X:23:SER:OG	2.04	0.70
2:X:547:PRO:O	2:X:553:VAL:CG2	2.39	0.70
2:X:559:MET:O	2:X:562:THR:HG22	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:499:ILE:H	2:W:499:ILE:HD13	1.55	0.70
2:U:496:ARG:O	2:U:496:ARG:HG3	1.90	0.70
2:Z:427:VAL:CG1	2:Z:516:ARG:NH2	2.47	0.70
2:Z:114:ASP:OD2	2:Z:175:SER:HB2	1.91	0.70
2:V:114:ASP:OD2	2:V:175:SER:HB2	1.91	0.70
2:V:31:GLY:HA3	2:V:64:TYR:CD2	2.26	0.70
2:Y:394:VAL:HG11	2:Y:443:ILE:HD12	1.73	0.70
2:Z:483:ASN:O	2:Z:555:ARG:CG	2.39	0.70
2:X:556:LEU:O	2:X:560:LEU:HD23	1.91	0.70
2:W:556:LEU:O	2:W:560:LEU:HD23	1.91	0.70
2:V:413:THR:HG23	2:V:414:VAL:HG23	1.71	0.70
2:V:406:LEU:HD11	2:V:475:ALA:HB2	1.73	0.70
2:V:523:ASN:HD21	2:V:538:ASP:HB3	1.53	0.70
2:V:23:SER:CB	2:V:483:ASN:HB2	2.21	0.70
2:W:557:PHE:CE1	2:W:629:ILE:HB	2.26	0.70
2:Z:583:SER:O	2:Z:586:THR:HG22	1.91	0.70
2:X:36:GLY:HA2	2:X:82:ARG:HD2	1.72	0.70
1:F:124:THR:HG21	1:F:130:MET:HG2	1.73	0.70
2:W:114:ASP:OD2	2:W:175:SER:HB2	1.92	0.70
2:Z:394:VAL:HG11	2:Z:443:ILE:HD12	1.73	0.70
2:W:394:VAL:HG11	2:W:443:ILE:HD12	1.73	0.70
2:U:483:ASN:O	2:U:555:ARG:CG	2.39	0.69
2:Z:524:PRO:CG	2:Z:535:LEU:HD12	2.22	0.69
2:W:521:ALA:HB1	2:W:539:LYS:O	1.91	0.69
2:Y:559:MET:O	2:Y:562:THR:HG22	1.92	0.69
2:W:47:GLU:HG3	2:W:69:MET:HG3	1.74	0.69
2:Z:559:MET:O	2:Z:562:THR:HG22	1.92	0.69
2:X:524:PRO:CG	2:X:535:LEU:HD12	2.22	0.69
2:Y:483:ASN:O	2:Y:555:ARG:CG	2.39	0.69
2:W:215:LYS:HE3	2:W:329:ASN:HD21	1.57	0.69
2:Y:47:GLU:HG3	2:Y:69:MET:HG3	1.74	0.69
2:V:483:ASN:O	2:V:555:ARG:CG	2.39	0.69
2:X:576:ASN:HB3	2:X:620:ARG:HH22	1.56	0.69
2:X:394:VAL:HG11	2:X:443:ILE:HD12	1.73	0.69
2:W:590:GLN:O	2:W:593:GLN:HG3	1.91	0.69
2:V:521:ALA:HB1	2:V:539:LYS:O	1.91	0.69
2:Y:524:PRO:CG	2:Y:535:LEU:HD12	2.22	0.69
2:X:521:ALA:HB1	2:X:539:LYS:O	1.91	0.69
2:W:524:PRO:CG	2:W:535:LEU:HD12	2.22	0.69
2:W:559:MET:O	2:W:562:THR:HG22	1.92	0.69
2:V:499:ILE:H	2:V:499:ILE:HD13	1.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:454:TYR:HE2	2:X:469:PRO:CA	2.03	0.69
2:U:391:LYS:HZ1	2:U:440:ASN:ND2	1.90	0.69
2:Y:576:ASN:HB3	2:Y:620:ARG:HH22	1.56	0.69
2:U:524:PRO:CG	2:U:535:LEU:HD12	2.22	0.69
2:W:576:ASN:HB3	2:W:620:ARG:HH22	1.56	0.69
2:U:514:ARG:HG3	2:U:535:LEU:CD1	2.20	0.69
2:V:524:PRO:CG	2:V:535:LEU:HD12	2.22	0.69
2:Z:455:LYS:HG3	2:Z:502:VAL:HG22	1.75	0.69
2:X:406:LEU:HD11	2:X:475:ALA:HB2	1.73	0.69
2:V:55:GLY:O	2:V:65:PHE:CE1	2.46	0.69
2:W:628:TYR:HD2	2:W:639:THR:HG22	1.51	0.69
2:Z:576:ASN:HB3	2:Z:620:ARG:HH22	1.56	0.69
2:W:289:ILE:H	2:W:289:ILE:HD12	1.57	0.69
2:U:23:SER:CB	2:U:483:ASN:HB2	2.21	0.69
2:V:559:MET:O	2:V:562:THR:HG22	1.93	0.69
2:V:454:TYR:HD2	2:V:469:PRO:HA	1.53	0.69
2:Y:514:ARG:HG3	2:Y:535:LEU:CD1	2.21	0.69
2:Y:517:LEU:O	2:Y:522:ILE:HG22	1.93	0.69
2:X:523:ASN:HD21	2:X:538:ASP:CB	2.06	0.69
2:X:427:VAL:CG1	2:X:516:ARG:NH2	2.47	0.69
2:Y:561:LYS:HB3	2:Y:640:LEU:CD2	2.23	0.69
2:Z:391:LYS:HZ3	2:Z:440:ASN:HD21	1.41	0.69
2:U:576:ASN:HB3	2:U:620:ARG:HH22	1.56	0.69
2:W:614:THR:CG2	2:W:620:ARG:HA	2.23	0.69
2:U:517:LEU:HD12	2:U:518:TYR:H	1.58	0.69
2:V:564:ILE:HG13	2:V:565:GLY:N	2.08	0.69
2:Y:521:ALA:CB	2:Y:540:THR:HA	2.22	0.69
2:W:406:LEU:HD11	2:W:475:ALA:HB2	1.73	0.69
2:W:55:GLY:O	2:W:65:PHE:CE1	2.46	0.69
2:U:523:ASN:HD21	2:U:538:ASP:CB	2.06	0.69
2:V:521:ALA:CB	2:V:540:THR:HA	2.22	0.69
2:Z:561:LYS:HB3	2:Z:640:LEU:CD2	2.23	0.69
2:X:561:LYS:HB3	2:X:640:LEU:CD2	2.23	0.69
2:Z:55:GLY:O	2:Z:65:PHE:CE1	2.46	0.69
2:X:55:GLY:O	2:X:65:PHE:CE1	2.46	0.69
2:V:622:GLU:OE1	2:V:645:THR:HA	1.93	0.69
2:X:450:ILE:CG1	2:X:451:ASP:H	1.89	0.68
2:W:514:ARG:CG	2:W:535:LEU:HD13	2.22	0.68
2:Y:614:THR:CG2	2:Y:620:ARG:HA	2.23	0.68
2:Z:47:GLU:HG3	2:Z:69:MET:HG3	1.73	0.68
2:V:561:LYS:HB3	2:V:640:LEU:CD2	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:561:LYS:HB3	2:W:640:LEU:CD2	2.23	0.68
2:Z:51:VAL:CA	2:Z:55:GLY:HA2	2.20	0.68
2:U:622:GLU:OE1	2:U:645:THR:HA	1.93	0.68
2:W:622:GLU:OE1	2:W:645:THR:HA	1.93	0.68
2:V:47:GLU:HG3	2:V:69:MET:HG3	1.73	0.68
2:V:215:LYS:HE3	2:V:329:ASN:HD21	1.58	0.68
2:V:289:ILE:HD12	2:V:289:ILE:H	1.58	0.68
2:Z:521:ALA:CB	2:Z:540:THR:HA	2.23	0.68
2:X:517:LEU:O	2:X:522:ILE:HG22	1.93	0.68
2:V:51:VAL:CA	2:V:55:GLY:HA2	2.20	0.68
2:Y:622:GLU:OE1	2:Y:645:THR:HA	1.93	0.68
2:V:575:LEU:O	2:V:580:THR:HG21	1.94	0.68
2:Z:622:GLU:OE1	2:Z:645:THR:HA	1.93	0.68
1:D:124:THR:HG21	1:D:130:MET:HG2	1.75	0.68
2:U:561:LYS:HB3	2:U:640:LEU:CD2	2.23	0.68
2:W:22:ASN:O	2:W:23:SER:OG	2.04	0.68
2:Z:614:THR:CG2	2:Z:620:ARG:HA	2.23	0.68
2:U:289:ILE:HD12	2:U:289:ILE:H	1.58	0.68
2:X:514:ARG:HG3	2:X:535:LEU:CD1	2.21	0.68
2:Y:564:ILE:HG13	2:Y:565:GLY:N	2.08	0.68
2:V:614:THR:CG2	2:V:620:ARG:HA	2.23	0.68
2:X:596:LYS:HD3	2:X:596:LYS:O	1.94	0.68
2:W:514:ARG:HG3	2:W:535:LEU:CD1	2.20	0.68
2:Y:55:GLY:O	2:Y:65:PHE:CE1	2.46	0.68
2:X:622:GLU:OE1	2:X:645:THR:HA	1.93	0.68
2:V:596:LYS:O	2:V:596:LYS:HD3	1.94	0.68
2:Y:578:ALA:O	2:Y:581:ARG:HB3	1.94	0.68
2:Y:304:ILE:HG13	2:Y:305:TYR:CE2	2.29	0.68
2:W:521:ALA:CB	2:W:540:THR:HA	2.23	0.68
2:V:523:ASN:HD21	2:V:538:ASP:CB	2.07	0.68
2:Z:517:LEU:O	2:Z:522:ILE:HG22	1.93	0.68
2:Z:564:ILE:HG13	2:Z:565:GLY:N	2.08	0.68
2:W:454:TYR:HD2	2:W:469:PRO:HA	1.53	0.68
2:W:523:ASN:HD21	2:W:538:ASP:CB	2.06	0.68
2:W:522:ILE:O	2:W:524:PRO:HD3	1.94	0.68
2:U:575:LEU:O	2:U:580:THR:HG21	1.94	0.68
2:Z:578:ALA:O	2:Z:581:ARG:HB3	1.94	0.68
2:V:578:ALA:O	2:V:581:ARG:HB3	1.94	0.68
2:U:521:ALA:CB	2:U:540:THR:HA	2.23	0.68
2:U:517:LEU:O	2:U:522:ILE:HG22	1.93	0.68
2:V:408:SER:HB2	2:V:471:ALA:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:409:PRO:HD2	2:Z:451:ASP:O	1.88	0.68
2:W:517:LEU:HD12	2:W:518:TYR:H	1.58	0.68
2:W:526:THR:HG21	2:W:535:LEU:HD21	1.76	0.68
2:Y:171:ILE:HG22	2:Y:172:SER:N	2.09	0.68
2:U:47:GLU:HG3	2:U:69:MET:HG3	1.74	0.68
2:U:500:LEU:HB2	2:U:501:ASN:OD1	1.94	0.68
2:X:215:LYS:HE3	2:X:329:ASN:HD21	1.58	0.68
2:U:598:LEU:HD23	2:U:598:LEU:O	1.94	0.68
2:X:598:LEU:O	2:X:598:LEU:HD23	1.94	0.68
2:Z:517:LEU:HD12	2:Z:518:TYR:H	1.58	0.68
2:X:23:SER:HB3	2:X:483:ASN:CB	2.22	0.68
2:X:517:LEU:HD12	2:X:518:TYR:H	1.58	0.68
2:X:521:ALA:CB	2:X:540:THR:HA	2.23	0.68
2:W:23:SER:HB3	2:W:483:ASN:CB	2.22	0.68
2:U:596:LYS:HD3	2:U:596:LYS:O	1.94	0.68
1:B:108:GLN:HB3	1:B:200:PRO:HD2	1.75	0.68
2:U:512:ALA:HA	2:U:515:ASP:OD2	1.94	0.68
2:V:514:ARG:NE	2:V:535:LEU:HD22	2.09	0.67
2:V:522:ILE:O	2:V:524:PRO:HD3	1.94	0.67
2:W:517:LEU:O	2:W:522:ILE:HG22	1.93	0.67
2:U:55:GLY:O	2:U:65:PHE:CE1	2.46	0.67
2:V:23:SER:HB3	2:V:483:ASN:CB	2.22	0.67
2:Z:514:ARG:CG	2:Z:535:LEU:HD13	2.22	0.67
2:U:171:ILE:HG22	2:U:172:SER:N	2.09	0.67
2:Z:171:ILE:HG22	2:Z:172:SER:N	2.09	0.67
2:Y:596:LYS:HD3	2:Y:596:LYS:O	1.94	0.67
2:Y:215:LYS:HE3	2:Y:329:ASN:HD21	1.57	0.67
2:Z:408:SER:HB2	2:Z:471:ALA:HB2	1.76	0.67
2:X:455:LYS:HG3	2:X:502:VAL:HG22	1.76	0.67
2:Y:427:VAL:O	2:Y:431:THR:HG22	1.94	0.67
2:Y:427:VAL:CG1	2:Y:516:ARG:NH2	2.47	0.67
2:X:55:GLY:O	2:X:65:PHE:HE1	1.78	0.67
2:W:228:GLY:CA	2:W:345:SER:HB3	2.24	0.67
2:U:578:ALA:O	2:U:581:ARG:HB3	1.93	0.67
2:Z:215:LYS:HE3	2:Z:329:ASN:HD21	1.58	0.67
2:X:289:ILE:H	2:X:289:ILE:HD12	1.58	0.67
2:Z:96:ALA:HB2	2:Z:191:SER:HA	1.76	0.67
2:Z:598:LEU:HD23	2:Z:598:LEU:O	1.94	0.67
2:Y:598:LEU:O	2:Y:598:LEU:HD23	1.94	0.67
2:Z:304:ILE:HG13	2:Z:305:TYR:CE2	2.30	0.67
2:X:564:ILE:HG13	2:X:565:GLY:N	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:51:VAL:CA	2:Y:55:GLY:HA2	2.20	0.67
2:Y:55:GLY:O	2:Y:65:PHE:HE1	1.78	0.67
2:X:228:GLY:CA	2:X:345:SER:HB3	2.23	0.67
2:W:391:LYS:HZ3	2:W:440:ASN:ND2	1.89	0.67
2:U:614:THR:CG2	2:U:620:ARG:HA	2.24	0.67
2:X:614:THR:CG2	2:X:620:ARG:HA	2.24	0.67
2:W:575:LEU:O	2:W:580:THR:HG21	1.94	0.67
2:Z:523:ASN:HD21	2:Z:538:ASP:CB	2.07	0.67
2:W:427:VAL:CG1	2:W:516:ARG:NH2	2.47	0.67
2:U:55:GLY:O	2:U:65:PHE:HE1	1.77	0.67
2:W:596:LYS:HD3	2:W:596:LYS:O	1.94	0.67
2:W:578:ALA:O	2:W:581:ARG:HB3	1.94	0.67
2:V:598:LEU:HD23	2:V:598:LEU:O	1.94	0.67
2:U:455:LYS:HG3	2:U:502:VAL:HG22	1.76	0.67
2:V:514:ARG:CG	2:V:535:LEU:HD13	2.22	0.67
2:V:517:LEU:O	2:V:522:ILE:HG22	1.93	0.67
2:Y:450:ILE:CG1	2:Y:451:ASP:H	1.89	0.67
2:W:427:VAL:CG1	2:W:516:ARG:HH21	1.94	0.67
2:V:55:GLY:O	2:V:65:PHE:HE1	1.77	0.67
2:U:228:GLY:CA	2:U:345:SER:HB3	2.24	0.67
2:V:228:GLY:CA	2:V:345:SER:HB3	2.24	0.67
2:Y:575:LEU:O	2:Y:580:THR:HG21	1.94	0.67
2:V:171:ILE:HG22	2:V:172:SER:N	2.09	0.67
2:U:215:LYS:HE3	2:U:329:ASN:HD21	1.58	0.67
2:Y:500:LEU:HB2	2:Y:501:ASN:OD1	1.95	0.67
2:V:351:THR:HG23	2:V:354:ASP:H	1.60	0.67
2:Y:522:ILE:O	2:Y:524:PRO:HD3	1.94	0.67
2:X:514:ARG:CG	2:X:535:LEU:HD13	2.23	0.67
2:X:449:ALA:CA	2:X:540:THR:HG23	2.25	0.67
2:X:427:VAL:O	2:X:431:THR:HG22	1.94	0.67
2:W:171:ILE:HG22	2:W:172:SER:N	2.09	0.67
2:V:500:LEU:HB2	2:V:501:ASN:OD1	1.95	0.67
2:X:304:ILE:HG13	2:X:305:TYR:CE2	2.30	0.67
2:Y:289:ILE:HD12	2:Y:289:ILE:H	1.58	0.67
2:Z:500:LEU:HB2	2:Z:501:ASN:OD1	1.95	0.67
2:U:450:ILE:CG1	2:U:451:ASP:H	1.89	0.67
2:U:514:ARG:CG	2:U:535:LEU:HD13	2.22	0.67
2:U:514:ARG:NE	2:U:535:LEU:HD22	2.10	0.67
2:Y:455:LYS:HG3	2:Y:502:VAL:HG22	1.75	0.67
2:Z:427:VAL:O	2:Z:431:THR:HG22	1.94	0.67
2:Z:55:GLY:O	2:Z:65:PHE:HE1	1.78	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:391:LYS:HZ1	2:X:440:ASN:ND2	1.91	0.67
2:V:517:LEU:HD12	2:V:518:TYR:H	1.59	0.67
2:Y:408:SER:HB2	2:Y:471:ALA:HB2	1.77	0.67
2:Y:514:ARG:CG	2:Y:535:LEU:HD13	2.23	0.67
2:X:526:THR:HG21	2:X:535:LEU:HD21	1.77	0.67
2:V:427:VAL:O	2:V:431:THR:HG22	1.94	0.67
2:Z:575:LEU:O	2:Z:580:THR:HG21	1.94	0.67
2:Z:596:LYS:HD3	2:Z:596:LYS:O	1.94	0.67
2:X:578:ALA:O	2:X:581:ARG:HB3	1.94	0.67
2:W:598:LEU:HD23	2:W:598:LEU:O	1.95	0.67
2:U:522:ILE:O	2:U:524:PRO:HD3	1.94	0.66
2:Y:409:PRO:HD2	2:Y:451:ASP:O	1.88	0.66
2:Y:523:ASN:HD21	2:Y:538:ASP:CB	2.07	0.66
2:X:409:PRO:HD2	2:X:451:ASP:O	1.88	0.66
1:F:19:ASP:HA	1:F:22:SER:HB2	1.77	0.66
2:U:304:ILE:HG13	2:U:305:TYR:CE2	2.30	0.66
2:U:564:ILE:HG13	2:U:565:GLY:N	2.08	0.66
2:X:379:ALA:CB	2:X:454:TYR:CE2	2.78	0.66
2:W:408:SER:HB2	2:W:471:ALA:HB2	1.77	0.66
2:U:51:VAL:CA	2:U:55:GLY:HA2	2.20	0.66
1:F:109:TYR:HB3	1:F:161:ARG:HH22	1.60	0.66
2:W:500:LEU:HB2	2:W:501:ASN:OD1	1.95	0.66
1:E:69:GLU:OE2	1:E:126:TYR:OH	2.09	0.66
2:W:512:ALA:HA	2:W:515:ASP:OD2	1.96	0.66
2:Z:289:ILE:HD12	2:Z:289:ILE:H	1.59	0.66
2:Z:526:THR:HG21	2:Z:535:LEU:HD21	1.76	0.66
2:U:427:VAL:O	2:U:431:THR:HG22	1.94	0.66
2:X:575:LEU:O	2:X:580:THR:HG21	1.94	0.66
2:Z:351:THR:HG23	2:Z:354:ASP:H	1.60	0.66
2:W:304:ILE:HG13	2:W:305:TYR:CE2	2.29	0.66
2:V:455:LYS:HG3	2:V:502:VAL:HG22	1.76	0.66
2:W:564:ILE:HG13	2:W:565:GLY:N	2.08	0.66
2:Y:351:THR:HG23	2:Y:354:ASP:H	1.60	0.66
2:V:304:ILE:HG13	2:V:305:TYR:CE2	2.29	0.66
2:U:96:ALA:HB2	2:U:191:SER:HA	1.77	0.66
2:X:522:ILE:O	2:X:524:PRO:HD3	1.95	0.66
2:W:96:ALA:HB2	2:W:191:SER:HA	1.77	0.66
2:X:500:LEU:HB2	2:X:501:ASN:OD1	1.95	0.66
2:W:514:ARG:NE	2:W:535:LEU:HD22	2.10	0.66
2:W:427:VAL:O	2:W:431:THR:HG22	1.94	0.66
2:Z:228:GLY:CA	2:Z:345:SER:HB3	2.23	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:96:ALA:HB2	2:Y:191:SER:HA	1.77	0.66
2:V:526:THR:HG21	2:V:535:LEU:HD21	1.77	0.66
2:Z:522:ILE:O	2:Z:524:PRO:HD3	1.95	0.66
2:Y:379:ALA:CB	2:Y:454:TYR:CE2	2.78	0.66
2:U:427:VAL:CG1	2:U:516:ARG:NH2	2.47	0.66
2:Y:454:TYR:HD2	2:Y:469:PRO:HA	1.53	0.66
2:W:450:ILE:CG1	2:W:451:ASP:H	1.89	0.66
2:U:391:LYS:NZ	2:U:440:ASN:HD21	1.92	0.66
2:V:121:VAL:HG22	2:V:166:ASN:HB3	1.78	0.66
2:U:449:ALA:CA	2:U:540:THR:HG23	2.26	0.66
2:U:544:VAL:HG12	2:U:545:PRO:N	2.11	0.66
2:V:409:PRO:C	2:V:454:TYR:HE1	1.98	0.66
2:V:544:VAL:HG12	2:V:545:PRO:N	2.11	0.66
2:W:379:ALA:CB	2:W:454:TYR:CE2	2.79	0.66
2:W:455:LYS:HG3	2:W:502:VAL:HG22	1.76	0.66
2:U:526:THR:HG21	2:U:535:LEU:HD21	1.76	0.66
2:Z:449:ALA:CA	2:Z:540:THR:HG23	2.25	0.66
2:Y:514:ARG:NE	2:Y:535:LEU:HD22	2.09	0.66
2:X:351:THR:HG23	2:X:354:ASP:H	1.61	0.66
2:W:351:THR:HG23	2:W:354:ASP:H	1.61	0.66
2:U:23:SER:HB3	2:U:483:ASN:CB	2.22	0.65
2:W:55:GLY:O	2:W:65:PHE:HE1	1.78	0.65
2:X:171:ILE:HG22	2:X:172:SER:N	2.09	0.65
2:X:121:VAL:HG22	2:X:166:ASN:HB3	1.79	0.65
2:Y:449:ALA:CA	2:Y:540:THR:HG23	2.26	0.65
2:Y:517:LEU:HD12	2:Y:518:TYR:H	1.59	0.65
2:V:427:VAL:CG1	2:V:516:ARG:HH21	1.93	0.65
2:U:630:GLN:HE21	2:U:636:ASN:N	1.95	0.65
2:V:449:ALA:CA	2:V:540:THR:HG23	2.26	0.65
2:Z:379:ALA:CB	2:Z:454:TYR:CE2	2.79	0.65
2:X:408:SER:HB2	2:X:471:ALA:HB2	1.77	0.65
2:Z:517:LEU:HD13	2:Z:524:PRO:HG3	1.78	0.65
2:W:449:ALA:CA	2:W:540:THR:HG23	2.25	0.65
2:V:427:VAL:CG1	2:V:516:ARG:NH2	2.47	0.65
2:U:408:SER:HB2	2:U:471:ALA:HB2	1.77	0.65
2:U:379:ALA:CB	2:U:454:TYR:CE2	2.78	0.65
2:Y:544:VAL:HG12	2:Y:545:PRO:N	2.11	0.65
2:U:427:VAL:CG1	2:U:516:ARG:HH21	1.93	0.65
2:Y:512:ALA:HA	2:Y:515:ASP:OD2	1.96	0.65
2:V:512:ALA:HA	2:V:515:ASP:OD2	1.96	0.65
2:U:517:LEU:HD13	2:U:524:PRO:HG3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:409:PRO:C	2:W:454:TYR:HE1	1.98	0.65
2:V:427:VAL:HG21	2:V:516:ARG:CZ	2.27	0.65
1:A:124:THR:HG21	1:A:130:MET:HG2	1.77	0.65
2:V:96:ALA:HB2	2:V:191:SER:HA	1.77	0.65
2:Z:514:ARG:NE	2:Z:535:LEU:HD22	2.10	0.65
2:Y:526:THR:HG21	2:Y:535:LEU:HD21	1.76	0.65
2:U:505:LEU:HD13	2:U:525:VAL:CG1	2.27	0.65
2:Z:512:ALA:HA	2:Z:515:ASP:OD2	1.96	0.65
2:X:544:VAL:HG12	2:X:545:PRO:N	2.11	0.65
2:X:505:LEU:HD13	2:X:525:VAL:CG1	2.26	0.65
2:V:66:MET:HG2	2:V:468:VAL:HG11	1.79	0.65
2:U:351:THR:HG23	2:U:354:ASP:H	1.61	0.65
1:C:69:GLU:OE2	1:C:126:TYR:OH	2.14	0.65
2:X:512:ALA:HA	2:X:515:ASP:OD2	1.96	0.65
2:Z:409:PRO:C	2:Z:454:TYR:HE1	1.98	0.64
2:Z:544:VAL:HG12	2:Z:545:PRO:N	2.11	0.64
2:X:454:TYR:HD2	2:X:469:PRO:HA	1.53	0.64
2:X:514:ARG:NE	2:X:535:LEU:HD22	2.10	0.64
2:W:427:VAL:HG21	2:W:516:ARG:CZ	2.28	0.64
2:Y:427:VAL:HG21	2:Y:516:ARG:CZ	2.27	0.64
2:Y:630:GLN:HE21	2:Y:636:ASN:N	1.95	0.64
2:U:121:VAL:HG22	2:U:166:ASN:HB3	1.79	0.64
1:A:108:GLN:HB3	1:A:200:PRO:HD2	1.79	0.64
2:W:121:VAL:HG22	2:W:166:ASN:HB3	1.78	0.64
2:V:379:ALA:CB	2:V:454:TYR:CE2	2.79	0.64
2:W:544:VAL:HG12	2:W:545:PRO:N	2.11	0.64
2:Z:450:ILE:N	2:Z:540:THR:HG23	2.13	0.64
2:Y:517:LEU:HD13	2:Y:524:PRO:HG3	1.78	0.64
2:U:427:VAL:HG21	2:U:516:ARG:CZ	2.28	0.64
2:Z:66:MET:HG2	2:Z:468:VAL:HG11	1.80	0.64
2:Y:526:THR:HG23	2:Y:535:LEU:CG	2.28	0.64
2:Z:603:GLU:HG2	2:Z:637:TYR:OH	1.98	0.64
2:Z:23:SER:HB3	2:Z:483:ASN:CB	2.22	0.64
2:X:526:THR:HG23	2:X:535:LEU:CG	2.27	0.64
2:W:603:GLU:HG2	2:W:637:TYR:OH	1.98	0.64
2:Z:450:ILE:CG1	2:Z:451:ASP:H	1.89	0.64
2:X:630:GLN:HE21	2:X:636:ASN:N	1.94	0.64
2:W:379:ALA:HB1	2:W:454:TYR:OH	1.74	0.64
2:W:505:LEU:HD13	2:W:525:VAL:CG1	2.26	0.64
2:Y:603:GLU:HG2	2:Y:637:TYR:OH	1.98	0.64
2:X:603:GLU:HG2	2:X:637:TYR:OH	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:121:VAL:HG22	2:Y:166:ASN:HB3	1.78	0.64
2:U:526:THR:HG23	2:U:535:LEU:CG	2.27	0.64
2:V:514:ARG:HG2	2:V:518:TYR:CE1	2.33	0.64
2:V:526:THR:HG23	2:V:535:LEU:CG	2.28	0.64
2:W:526:THR:HG23	2:W:535:LEU:CG	2.28	0.64
2:U:100:GLU:HG3	2:U:186:LYS:H	1.63	0.64
2:Y:409:PRO:C	2:Y:454:TYR:HE1	1.98	0.64
2:W:517:LEU:HD13	2:W:524:PRO:HG3	1.78	0.64
2:V:505:LEU:HD13	2:V:525:VAL:CG1	2.27	0.64
2:Y:215:LYS:HE3	2:Y:329:ASN:ND2	2.13	0.64
2:V:100:GLU:HG3	2:V:186:LYS:H	1.63	0.64
2:V:517:LEU:HD13	2:V:524:PRO:HG3	1.78	0.64
2:X:517:LEU:HD13	2:X:524:PRO:HG3	1.78	0.64
2:U:603:GLU:HG2	2:U:637:TYR:OH	1.98	0.64
2:U:409:PRO:HD2	2:U:451:ASP:O	1.88	0.64
2:Z:526:THR:HG23	2:Z:535:LEU:CG	2.27	0.64
2:Z:557:PHE:CE2	2:Z:631:PRO:HD3	2.33	0.64
2:Z:561:LYS:HB3	2:Z:640:LEU:HD21	1.80	0.64
2:Z:427:VAL:HG21	2:Z:516:ARG:CZ	2.27	0.64
2:Y:561:LYS:HB3	2:Y:640:LEU:HD21	1.80	0.64
2:X:51:VAL:CA	2:X:55:GLY:HA2	2.19	0.64
2:U:450:ILE:N	2:U:540:THR:HG23	2.13	0.63
2:V:215:LYS:HE3	2:V:329:ASN:ND2	2.13	0.63
2:W:66:MET:HG2	2:W:468:VAL:HG11	1.80	0.63
2:W:100:GLU:HG3	2:W:186:LYS:H	1.62	0.63
2:U:409:PRO:C	2:U:454:TYR:HE1	1.98	0.63
2:V:547:PRO:C	2:V:553:VAL:HG21	2.19	0.63
2:Z:630:GLN:HE21	2:Z:636:ASN:N	1.95	0.63
2:W:557:PHE:CE2	2:W:631:PRO:HD3	2.34	0.63
1:E:66:ALA:O	1:E:68:VAL:N	2.32	0.63
2:Y:66:MET:HG2	2:Y:468:VAL:HG11	1.80	0.63
2:V:557:PHE:CE2	2:V:631:PRO:HD3	2.34	0.63
2:V:630:GLN:HE21	2:V:636:ASN:N	1.95	0.63
2:V:561:LYS:HB3	2:V:640:LEU:HD21	1.80	0.63
2:X:514:ARG:HG2	2:X:518:TYR:HE1	1.63	0.63
2:W:215:LYS:HE3	2:W:329:ASN:ND2	2.13	0.63
2:U:514:ARG:HG2	2:U:518:TYR:CE1	2.34	0.63
2:U:517:LEU:HD11	2:U:524:PRO:HG3	1.79	0.63
2:Z:514:ARG:HG2	2:Z:518:TYR:CE1	2.33	0.63
2:X:409:PRO:C	2:X:454:TYR:HE1	1.98	0.63
2:X:557:PHE:CE2	2:X:631:PRO:HD3	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:517:LEU:HD11	2:W:524:PRO:HG3	1.80	0.63
2:Y:228:GLY:CA	2:Y:345:SER:HB3	2.24	0.63
2:V:603:GLU:HG2	2:V:637:TYR:OH	1.98	0.63
2:U:215:LYS:HE3	2:U:329:ASN:ND2	2.13	0.63
2:Y:100:GLU:HG3	2:Y:186:LYS:H	1.63	0.63
2:X:96:ALA:HB2	2:X:191:SER:HA	1.78	0.63
2:Z:100:GLU:HG3	2:Z:186:LYS:H	1.64	0.63
2:V:499:ILE:HG13	2:V:502:VAL:HG21	1.81	0.63
2:Y:499:ILE:HG13	2:Y:502:VAL:HG21	1.81	0.63
2:Y:517:LEU:HD11	2:Y:524:PRO:HG3	1.80	0.63
2:Y:547:PRO:C	2:Y:553:VAL:HG21	2.19	0.63
2:W:514:ARG:HG2	2:W:518:TYR:CE1	2.33	0.63
2:Z:499:ILE:HG13	2:Z:502:VAL:HG21	1.81	0.63
2:Z:514:ARG:O	2:Z:518:TYR:HD1	1.82	0.63
2:Z:517:LEU:HD11	2:Z:524:PRO:HG3	1.80	0.63
2:X:547:PRO:C	2:X:553:VAL:HG21	2.19	0.63
2:W:561:LYS:HB3	2:W:640:LEU:HD21	1.80	0.63
1:E:108:GLN:HB3	1:E:200:PRO:HD2	1.81	0.63
2:U:499:ILE:HG13	2:U:502:VAL:HG21	1.81	0.63
2:Y:404:LEU:CD2	2:Y:554:ARG:NH1	2.60	0.63
2:Z:561:LYS:O	2:Z:564:ILE:HG12	1.99	0.63
2:Y:514:ARG:O	2:Y:518:TYR:HD1	1.82	0.63
2:Y:450:ILE:N	2:Y:540:THR:HG23	2.14	0.63
2:X:499:ILE:HG13	2:X:502:VAL:HG21	1.81	0.63
2:W:499:ILE:HG13	2:W:502:VAL:HG21	1.81	0.63
2:W:514:ARG:O	2:W:518:TYR:HD1	1.82	0.63
2:X:427:VAL:HG21	2:X:516:ARG:CZ	2.27	0.63
2:U:628:TYR:CE2	2:U:639:THR:HG22	2.34	0.63
2:Z:391:LYS:NZ	2:Z:440:ASN:HD21	1.91	0.63
1:F:69:GLU:OE2	1:F:126:TYR:OH	2.11	0.63
2:X:215:LYS:HE3	2:X:329:ASN:ND2	2.13	0.63
2:Z:121:VAL:HG22	2:Z:166:ASN:HB3	1.79	0.63
2:U:514:ARG:HG2	2:U:518:TYR:HE1	1.64	0.63
2:U:547:PRO:C	2:U:553:VAL:HG21	2.19	0.63
2:V:517:LEU:HD11	2:V:524:PRO:HG3	1.79	0.63
2:W:107:GLY:HA3	2:W:110:TYR:HE1	1.64	0.63
2:W:107:GLY:HA3	2:W:110:TYR:CE1	2.34	0.63
2:U:66:MET:HG2	2:U:468:VAL:HG11	1.80	0.63
2:Y:213:ASN:N	2:Y:213:ASN:HD22	1.97	0.63
2:U:557:PHE:CE2	2:U:631:PRO:HD3	2.34	0.62
2:V:514:ARG:O	2:V:518:TYR:HD1	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:547:PRO:C	2:Z:553:VAL:HG21	2.19	0.62
2:W:514:ARG:HG2	2:W:518:TYR:HE1	1.64	0.62
2:W:547:PRO:C	2:W:553:VAL:HG21	2.19	0.62
2:X:66:MET:HG2	2:X:468:VAL:HG11	1.79	0.62
2:U:23:SER:HG	2:U:483:ASN:HB3	1.63	0.62
2:W:450:ILE:N	2:W:540:THR:HG23	2.13	0.62
2:Z:628:TYR:CE2	2:Z:639:THR:HG22	2.34	0.62
1:E:124:THR:HG21	1:E:130:MET:HG2	1.81	0.62
2:Z:514:ARG:HG2	2:Z:518:TYR:HE1	1.64	0.62
2:X:517:LEU:HD11	2:X:524:PRO:HG3	1.80	0.62
2:W:630:GLN:HE21	2:W:636:ASN:N	1.96	0.62
2:V:514:ARG:HG2	2:V:518:TYR:HE1	1.63	0.62
2:V:561:LYS:O	2:V:564:ILE:HG12	1.98	0.62
2:Z:407:CYS:O	2:Z:450:ILE:HA	1.99	0.62
2:X:514:ARG:O	2:X:518:TYR:HD1	1.82	0.62
2:X:561:LYS:O	2:X:564:ILE:HG12	1.99	0.62
2:Y:561:LYS:O	2:Y:564:ILE:HG12	1.99	0.62
2:U:561:LYS:HB3	2:U:640:LEU:HD21	1.79	0.62
2:V:628:TYR:CE2	2:V:639:THR:HG22	2.34	0.62
2:U:514:ARG:O	2:U:518:TYR:HD1	1.83	0.62
2:V:555:ARG:O	2:V:559:MET:HE2	1.99	0.62
2:X:514:ARG:HG2	2:X:518:TYR:CE1	2.33	0.62
2:Y:557:PHE:CE2	2:Y:631:PRO:HD3	2.34	0.62
2:X:107:GLY:HA3	2:X:110:TYR:CE1	2.35	0.62
2:U:213:ASN:HD22	2:U:213:ASN:N	1.98	0.62
2:U:561:LYS:O	2:U:564:ILE:HG12	1.99	0.62
2:V:450:ILE:CG1	2:V:451:ASP:H	1.89	0.62
2:Z:555:ARG:O	2:Z:559:MET:HE2	1.99	0.62
2:Y:514:ARG:HG2	2:Y:518:TYR:CE1	2.34	0.62
2:X:561:LYS:HB3	2:X:640:LEU:HD21	1.80	0.62
2:Y:628:TYR:CE2	2:Y:639:THR:HG22	2.34	0.62
2:V:107:GLY:HA3	2:V:110:TYR:CE1	2.34	0.62
2:U:407:CYS:O	2:U:450:ILE:HA	2.00	0.62
2:V:450:ILE:CG1	2:V:451:ASP:N	2.53	0.62
2:X:407:CYS:O	2:X:450:ILE:HA	2.00	0.62
2:X:450:ILE:N	2:X:540:THR:HG23	2.13	0.62
2:Z:514:ARG:HA	2:Z:517:LEU:HG	1.82	0.62
2:W:573:PHE:HD2	2:W:574:GLU:CD	2.03	0.62
2:V:213:ASN:HD22	2:V:213:ASN:N	1.98	0.62
2:U:514:ARG:O	2:U:517:LEU:HG	1.99	0.62
2:V:450:ILE:N	2:V:540:THR:HG23	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:555:ARG:O	2:Y:559:MET:HE2	2.00	0.62
2:Z:215:LYS:HE3	2:Z:329:ASN:ND2	2.13	0.62
2:X:100:GLU:HG3	2:X:186:LYS:H	1.63	0.62
2:U:455:LYS:HE2	2:U:502:VAL:HG22	1.82	0.61
2:Z:556:LEU:CD1	2:Z:631:PRO:HA	2.30	0.61
2:Y:614:THR:HG21	2:Y:620:ARG:HA	1.82	0.61
2:U:573:PHE:HD2	2:U:574:GLU:CD	2.04	0.61
2:V:573:PHE:HD2	2:V:574:GLU:CD	2.04	0.61
2:X:628:TYR:CE2	2:X:639:THR:HG22	2.35	0.61
2:Y:107:GLY:HA3	2:Y:110:TYR:CE1	2.35	0.61
2:Z:573:PHE:HD2	2:Z:574:GLU:CD	2.03	0.61
2:W:213:ASN:N	2:W:213:ASN:HD22	1.98	0.61
2:W:407:CYS:O	2:W:450:ILE:HA	2.00	0.61
2:U:107:GLY:HA3	2:U:110:TYR:CE1	2.34	0.61
2:Z:107:GLY:HA3	2:Z:110:TYR:CE1	2.34	0.61
2:W:561:LYS:O	2:W:564:ILE:HG12	1.99	0.61
2:Z:278:GLN:HG2	2:Z:296:SER:HB2	1.83	0.61
2:X:213:ASN:N	2:X:213:ASN:HD22	1.97	0.61
2:U:555:ARG:O	2:U:559:MET:HE2	2.00	0.61
2:V:407:CYS:O	2:V:450:ILE:HA	2.00	0.61
2:Z:404:LEU:CD2	2:Z:554:ARG:NH1	2.60	0.61
2:Y:407:CYS:O	2:Y:450:ILE:HA	2.00	0.61
2:Y:514:ARG:O	2:Y:517:LEU:HG	2.00	0.61
2:X:107:GLY:HA3	2:X:110:TYR:HE1	1.65	0.61
2:V:514:ARG:HA	2:V:517:LEU:HG	1.81	0.61
2:W:517:LEU:HB2	2:W:522:ILE:HG21	1.83	0.61
2:U:161:PRO:HB3	2:U:187:ILE:HB	1.82	0.61
2:V:161:PRO:HB3	2:V:187:ILE:HB	1.83	0.61
2:X:573:PHE:HD2	2:X:574:GLU:CD	2.04	0.61
2:W:514:ARG:HA	2:W:517:LEU:HG	1.82	0.61
2:U:278:GLN:HG2	2:U:296:SER:HB2	1.82	0.61
2:Z:213:ASN:HD22	2:Z:213:ASN:N	1.98	0.61
2:U:556:LEU:CD1	2:U:631:PRO:HA	2.30	0.61
2:V:514:ARG:O	2:V:517:LEU:HG	1.99	0.61
2:W:514:ARG:O	2:W:517:LEU:HG	2.01	0.61
2:Y:556:LEU:CD1	2:Y:631:PRO:HA	2.31	0.61
2:Z:455:LYS:HE2	2:Z:502:VAL:HG22	1.82	0.61
2:Z:514:ARG:O	2:Z:517:LEU:HG	2.00	0.61
2:Y:514:ARG:HA	2:Y:517:LEU:HG	1.82	0.61
2:X:514:ARG:O	2:X:517:LEU:HG	2.00	0.61
1:D:108:GLN:HB3	1:D:200:PRO:HD2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:514:ARG:HA	2:U:517:LEU:HG	1.83	0.61
2:X:455:LYS:HE2	2:X:502:VAL:HG22	1.82	0.61
2:X:556:LEU:CD1	2:X:631:PRO:HA	2.31	0.61
2:Y:278:GLN:HG2	2:Y:296:SER:HB2	1.83	0.61
2:Z:107:GLY:HA3	2:Z:110:TYR:HE1	1.65	0.60
2:Y:107:GLY:HA3	2:Y:110:TYR:HE1	1.65	0.60
2:Y:617:VAL:HG23	2:Y:619:ASP:N	2.16	0.60
2:X:575:LEU:HD12	2:X:575:LEU:N	2.16	0.60
2:V:107:GLY:HA3	2:V:110:TYR:HE1	1.65	0.60
2:V:556:LEU:CD1	2:V:631:PRO:HA	2.30	0.60
2:W:628:TYR:CE2	2:W:639:THR:HG22	2.35	0.60
2:X:97:GLY:HA3	2:X:256:PRO:HG2	1.84	0.60
2:Y:573:PHE:HD2	2:Y:574:GLU:CD	2.04	0.60
2:U:627:PHE:HD1	2:U:629:ILE:HG13	1.67	0.60
2:V:455:LYS:HE2	2:V:502:VAL:HG22	1.83	0.60
2:X:514:ARG:HA	2:X:517:LEU:HG	1.82	0.60
2:W:555:ARG:O	2:W:559:MET:HE2	2.02	0.60
2:Y:575:LEU:HD12	2:Y:575:LEU:N	2.17	0.60
2:Z:575:LEU:HD12	2:Z:575:LEU:N	2.16	0.60
2:U:617:VAL:HG23	2:U:619:ASP:N	2.17	0.60
2:X:614:THR:HG21	2:X:620:ARG:HA	1.83	0.60
2:W:575:LEU:HD12	2:W:575:LEU:N	2.17	0.60
2:Z:614:THR:HG21	2:Z:620:ARG:HA	1.83	0.60
1:F:66:ALA:O	1:F:68:VAL:N	2.32	0.60
2:W:97:GLY:HA3	2:W:256:PRO:HG2	1.83	0.60
2:V:517:LEU:HB2	2:V:522:ILE:HG21	1.84	0.60
2:Y:514:ARG:HG2	2:Y:518:TYR:HE1	1.64	0.60
2:X:526:THR:HG23	2:X:535:LEU:HG	1.84	0.60
2:W:627:PHE:HD1	2:W:629:ILE:HG13	1.67	0.60
2:W:556:LEU:CD1	2:W:631:PRO:HA	2.31	0.60
2:Z:617:VAL:HG23	2:Z:619:ASP:N	2.17	0.60
2:W:614:THR:HG21	2:W:620:ARG:HA	1.83	0.60
2:U:107:GLY:HA3	2:U:110:TYR:HE1	1.65	0.60
2:X:161:PRO:HB3	2:X:187:ILE:HB	1.83	0.60
1:B:124:THR:HG21	1:B:130:MET:HG2	1.82	0.60
2:U:404:LEU:CD2	2:U:554:ARG:NH1	2.60	0.60
2:Y:23:SER:HB3	2:Y:483:ASN:CB	2.23	0.60
2:Y:97:GLY:HA3	2:Y:256:PRO:HG2	1.83	0.60
2:V:627:PHE:HD1	2:V:629:ILE:HG13	1.67	0.60
2:W:404:LEU:CD2	2:W:554:ARG:NH1	2.60	0.60
2:W:455:LYS:HE2	2:W:502:VAL:HG22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:627:PHE:HD1	2:Y:629:ILE:HG13	1.66	0.60
2:Z:505:LEU:HD13	2:Z:525:VAL:CG1	2.27	0.60
2:X:278:GLN:HG2	2:X:296:SER:HB2	1.83	0.60
2:Z:161:PRO:HB3	2:Z:187:ILE:HB	1.83	0.60
2:U:542:THR:HG23	2:U:543:SER:N	2.17	0.59
2:X:627:PHE:HD1	2:X:629:ILE:HG13	1.67	0.59
2:V:391:LYS:CE	2:V:440:ASN:O	2.49	0.59
2:V:617:VAL:HG23	2:V:619:ASP:N	2.17	0.59
2:Y:419:VAL:HA	2:Y:422:ALA:HB3	1.84	0.59
2:V:278:GLN:HG2	2:V:296:SER:HB2	1.83	0.59
2:V:542:THR:HG23	2:V:543:SER:N	2.17	0.59
2:Y:517:LEU:HB2	2:Y:522:ILE:HG21	1.82	0.59
2:X:555:ARG:O	2:X:559:MET:HE2	2.02	0.59
2:Z:517:LEU:HB2	2:Z:522:ILE:HG21	1.83	0.59
2:Z:526:THR:HG23	2:Z:535:LEU:HD11	1.84	0.59
2:Z:627:PHE:HD1	2:Z:629:ILE:HG13	1.67	0.59
2:U:391:LYS:CE	2:U:440:ASN:O	2.49	0.59
2:W:278:GLN:HG2	2:W:296:SER:HB2	1.83	0.59
1:C:114:ILE:HG12	1:C:115:LYS:N	2.17	0.59
2:V:419:VAL:HA	2:V:422:ALA:HB3	1.84	0.59
2:W:419:VAL:HA	2:W:422:ALA:HB3	1.84	0.59
2:V:404:LEU:CD2	2:V:554:ARG:NH1	2.60	0.59
2:Y:455:LYS:HE2	2:Y:502:VAL:HG22	1.83	0.59
2:X:517:LEU:HB2	2:X:522:ILE:HG21	1.83	0.59
2:V:60:GLU:HG2	2:V:347:ASN:HB2	1.85	0.59
2:U:526:THR:HG23	2:U:535:LEU:HG	1.83	0.59
2:W:391:LYS:CE	2:W:440:ASN:O	2.49	0.59
1:F:114:ILE:HG12	1:F:115:LYS:H	1.68	0.59
2:U:526:THR:HG23	2:U:535:LEU:HD11	1.85	0.59
2:Z:560:LEU:O	2:Z:564:ILE:HG23	2.03	0.59
2:W:542:THR:HG23	2:W:543:SER:N	2.17	0.59
2:W:617:VAL:HG23	2:W:619:ASP:N	2.17	0.59
2:Y:178:LEU:CD2	2:Y:178:LEU:N	2.66	0.59
2:Y:161:PRO:HB3	2:Y:187:ILE:HB	1.84	0.59
2:U:419:VAL:HA	2:U:422:ALA:HB3	1.84	0.59
2:Z:97:GLY:HA3	2:Z:256:PRO:HG2	1.84	0.59
2:V:575:LEU:N	2:V:575:LEU:HD12	2.17	0.59
2:Z:419:VAL:HA	2:Z:422:ALA:HB3	1.85	0.59
2:V:97:GLY:HA3	2:V:256:PRO:HG2	1.84	0.59
2:X:419:VAL:HA	2:X:422:ALA:HB3	1.84	0.59
2:U:557:PHE:HE2	2:U:631:PRO:HD3	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:614:THR:HG21	2:V:620:ARG:HA	1.83	0.59
2:U:575:LEU:HD12	2:U:575:LEU:N	2.17	0.59
2:X:617:VAL:HG23	2:X:619:ASP:N	2.17	0.59
2:V:557:PHE:HE2	2:V:631:PRO:HD3	1.68	0.59
2:X:557:PHE:HE2	2:X:631:PRO:HD3	1.68	0.59
2:Z:178:LEU:N	2:Z:178:LEU:CD2	2.66	0.59
2:U:97:GLY:HA3	2:U:256:PRO:HG2	1.83	0.59
2:V:526:THR:HG23	2:V:535:LEU:HD11	1.85	0.59
2:Z:23:SER:HG	2:Z:483:ASN:HB3	1.68	0.59
2:U:60:GLU:HG2	2:U:347:ASN:HB2	1.85	0.59
2:Z:450:ILE:N	2:Z:540:THR:CG2	2.66	0.58
2:Y:526:THR:HG23	2:Y:535:LEU:HD11	1.84	0.58
2:W:526:THR:HG23	2:W:535:LEU:HD11	1.84	0.58
2:W:560:LEU:O	2:W:564:ILE:HG23	2.03	0.58
2:Z:398:ASP:O	2:Z:401:GLN:HG3	2.03	0.58
2:U:560:LEU:O	2:U:564:ILE:HG23	2.03	0.58
2:U:557:PHE:HZ	2:U:629:ILE:O	1.87	0.58
1:B:151:GLU:OE2	1:B:161:ARG:NH1	2.34	0.58
2:X:456:TYR:HB3	2:X:504:LYS:HB3	1.85	0.58
2:Z:576:ASN:HA	2:Z:580:THR:HG21	1.86	0.58
2:Z:581:ARG:HB2	2:Z:623:PHE:CZ	2.39	0.58
2:Y:60:GLU:HG2	2:Y:347:ASN:HB2	1.85	0.58
2:Z:542:THR:HG23	2:Z:543:SER:N	2.18	0.58
2:Y:456:TYR:HB3	2:Y:504:LYS:HB3	1.86	0.58
2:Y:505:LEU:HD13	2:Y:525:VAL:CG1	2.27	0.58
2:X:391:LYS:CE	2:X:440:ASN:O	2.50	0.58
2:V:178:LEU:CD2	2:V:178:LEU:N	2.66	0.58
2:X:398:ASP:O	2:X:401:GLN:HG3	2.04	0.58
2:W:398:ASP:O	2:W:401:GLN:HG3	2.03	0.58
2:V:450:ILE:HD13	2:V:522:ILE:HD12	1.86	0.58
2:Z:557:PHE:HE1	2:Z:629:ILE:HB	1.68	0.58
2:X:373:PHE:HB2	2:X:405:VAL:HA	1.86	0.58
2:Z:391:LYS:CE	2:Z:440:ASN:O	2.49	0.58
2:U:614:THR:HG21	2:U:620:ARG:HA	1.83	0.58
2:U:517:LEU:HB2	2:U:522:ILE:HG21	1.83	0.58
2:U:557:PHE:HE1	2:U:629:ILE:HB	1.69	0.58
2:V:523:ASN:ND2	2:V:538:ASP:HA	2.19	0.58
2:V:560:LEU:O	2:V:564:ILE:HG23	2.03	0.58
2:W:523:ASN:ND2	2:W:538:ASP:HA	2.19	0.58
2:W:501:ASN:N	2:W:501:ASN:OD1	2.36	0.58
2:W:161:PRO:HB3	2:W:187:ILE:HB	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:398:ASP:O	2:U:401:GLN:HG3	2.04	0.58
2:Y:450:ILE:N	2:Y:540:THR:CG2	2.67	0.58
2:X:404:LEU:CD2	2:X:554:ARG:NH1	2.60	0.58
2:X:523:ASN:OD1	2:X:538:ASP:HA	2.04	0.58
2:Y:557:PHE:HE1	2:Y:629:ILE:HB	1.68	0.58
2:Y:391:LYS:CE	2:Y:440:ASN:O	2.49	0.58
2:Y:501:ASN:N	2:Y:501:ASN:OD1	2.37	0.58
2:V:526:THR:HG23	2:V:535:LEU:HG	1.85	0.58
2:X:560:LEU:O	2:X:564:ILE:HG23	2.03	0.58
2:W:429:TRP:CZ2	2:W:441:PHE:HB2	2.39	0.58
2:U:178:LEU:CD2	2:U:178:LEU:N	2.66	0.58
2:Y:398:ASP:O	2:Y:401:GLN:HG3	2.03	0.58
2:X:133:GLU:HB3	2:X:142:LYS:HB3	1.86	0.58
2:V:450:ILE:N	2:V:540:THR:CG2	2.66	0.58
2:Z:23:SER:OG	2:Z:483:ASN:HB2	2.04	0.58
2:Y:373:PHE:HB2	2:Y:404:LEU:O	2.04	0.58
2:Y:373:PHE:HB2	2:Y:405:VAL:HA	1.85	0.58
2:Y:560:LEU:O	2:Y:564:ILE:HG23	2.03	0.58
2:V:501:ASN:N	2:V:501:ASN:OD1	2.36	0.58
2:X:581:ARG:HB2	2:X:623:PHE:CZ	2.39	0.58
2:Z:60:GLU:HG2	2:Z:347:ASN:HB2	1.85	0.58
1:E:109:TYR:HB3	1:E:161:ARG:HH22	1.69	0.58
2:U:455:LYS:HG2	2:U:456:TYR:N	2.19	0.58
2:V:456:TYR:HB3	2:V:504:LYS:HB3	1.85	0.58
2:Z:455:LYS:HG2	2:Z:456:TYR:N	2.19	0.58
2:Z:523:ASN:OD1	2:Z:538:ASP:HA	2.04	0.58
2:Y:526:THR:HG23	2:Y:535:LEU:HG	1.85	0.58
2:X:429:TRP:CZ2	2:X:441:PHE:HB2	2.39	0.58
2:Z:614:THR:HG23	2:Z:615:PRO:O	2.04	0.58
2:Y:133:GLU:HB3	2:Y:142:LYS:HB3	1.86	0.58
2:X:23:SER:OG	2:X:483:ASN:HB2	2.04	0.57
2:X:526:THR:HG23	2:X:535:LEU:HD11	1.85	0.57
2:X:542:THR:HG23	2:X:543:SER:N	2.18	0.57
2:U:429:TRP:CZ2	2:U:441:PHE:HB2	2.39	0.57
2:W:391:LYS:HZ1	2:W:440:ASN:ND2	1.99	0.57
2:Z:429:TRP:CZ2	2:Z:441:PHE:HB2	2.39	0.57
2:X:614:THR:HG23	2:X:615:PRO:O	2.04	0.57
2:Y:581:ARG:HB2	2:Y:623:PHE:CZ	2.38	0.57
1:E:125:ARG:HH21	1:E:184:ARG:HG2	1.68	0.57
2:V:499:ILE:HG13	2:V:502:VAL:CG2	2.35	0.57
2:X:557:PHE:HZ	2:X:629:ILE:O	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:456:TYR:O	2:W:503:ILE:HG12	2.04	0.57
2:W:526:THR:HG23	2:W:535:LEU:HG	1.85	0.57
2:Y:429:TRP:CZ2	2:Y:441:PHE:HB2	2.39	0.57
1:A:151:GLU:OE2	1:A:161:ARG:NH1	2.30	0.57
2:V:576:ASN:HA	2:V:580:THR:HG21	1.86	0.57
2:U:576:ASN:HA	2:U:580:THR:HG21	1.85	0.57
2:U:501:ASN:N	2:U:501:ASN:OD1	2.36	0.57
2:W:133:GLU:HB3	2:W:142:LYS:HB3	1.86	0.57
2:Z:557:PHE:HZ	2:Z:629:ILE:O	1.87	0.57
2:Z:557:PHE:HE2	2:Z:631:PRO:HD3	1.68	0.57
2:W:523:ASN:OD1	2:W:538:ASP:HA	2.04	0.57
1:A:109:TYR:HB3	1:A:161:ARG:NH2	2.19	0.57
2:V:614:THR:HG23	2:V:615:PRO:O	2.04	0.57
2:Z:501:ASN:N	2:Z:501:ASN:OD1	2.36	0.57
2:U:450:ILE:HG23	2:U:522:ILE:HG13	1.86	0.57
2:U:523:ASN:OD1	2:U:538:ASP:HA	2.04	0.57
2:U:627:PHE:CE2	2:U:640:LEU:HD23	2.40	0.57
2:V:557:PHE:HZ	2:V:629:ILE:O	1.87	0.57
2:Z:499:ILE:HG13	2:Z:502:VAL:CG2	2.34	0.57
2:Z:450:ILE:HD13	2:Z:522:ILE:HD12	1.86	0.57
2:W:450:ILE:N	2:W:540:THR:CG2	2.66	0.57
2:W:557:PHE:HZ	2:W:629:ILE:O	1.87	0.57
2:Y:627:PHE:CD1	2:Y:629:ILE:HG13	2.39	0.57
2:Y:557:PHE:HZ	2:Y:629:ILE:O	1.86	0.57
2:Z:526:THR:HG23	2:Z:535:LEU:HG	1.85	0.57
2:X:499:ILE:HG13	2:X:502:VAL:CG2	2.34	0.57
2:W:373:PHE:HB2	2:W:405:VAL:HA	1.86	0.57
2:W:499:ILE:HG13	2:W:502:VAL:CG2	2.34	0.57
2:V:429:TRP:CZ2	2:V:441:PHE:HB2	2.39	0.57
2:X:501:ASN:OD1	2:X:501:ASN:N	2.37	0.57
2:Z:423:VAL:HG21	2:Z:513:GLN:CD	2.25	0.57
2:U:423:VAL:HG21	2:U:513:GLN:CD	2.25	0.57
2:V:523:ASN:OD1	2:V:538:ASP:HA	2.04	0.57
2:Y:542:THR:HG23	2:Y:543:SER:N	2.17	0.57
2:X:455:LYS:HG2	2:X:456:TYR:N	2.19	0.57
2:X:523:ASN:ND2	2:X:538:ASP:HA	2.19	0.57
2:W:450:ILE:HD13	2:W:522:ILE:HD12	1.86	0.57
2:Y:558:ASN:HA	2:Y:561:LYS:HE2	1.87	0.57
2:X:571:ARG:HG3	2:X:572:LEU:N	2.20	0.57
2:U:614:THR:HG23	2:U:615:PRO:O	2.05	0.57
2:W:60:GLU:HG2	2:W:347:ASN:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:558:ASN:HA	2:U:561:LYS:HE2	1.87	0.57
2:Y:499:ILE:HG13	2:Y:502:VAL:CG2	2.35	0.57
2:Y:523:ASN:OD1	2:Y:538:ASP:HA	2.04	0.57
2:V:423:VAL:HG21	2:V:513:GLN:CD	2.25	0.57
2:U:23:SER:OG	2:U:483:ASN:HB2	2.04	0.57
2:Z:456:TYR:HB3	2:Z:504:LYS:HB3	1.85	0.57
2:Y:450:ILE:HD13	2:Y:522:ILE:HD12	1.86	0.57
2:X:456:TYR:O	2:X:503:ILE:HG12	2.05	0.57
2:W:23:SER:HG	2:W:483:ASN:HB3	1.66	0.57
2:W:514:ARG:CG	2:W:518:TYR:HE1	2.18	0.57
2:W:557:PHE:HE2	2:W:631:PRO:HD3	1.68	0.57
2:Y:557:PHE:HE2	2:Y:631:PRO:HD3	1.68	0.57
2:W:614:THR:HG23	2:W:615:PRO:O	2.05	0.57
2:U:596:LYS:HG2	2:U:601:ILE:O	2.05	0.57
2:V:581:ARG:HB2	2:V:623:PHE:CZ	2.39	0.57
2:U:581:ARG:HB2	2:U:623:PHE:CZ	2.39	0.57
2:V:398:ASP:O	2:V:401:GLN:HG3	2.04	0.57
2:V:514:ARG:CG	2:V:518:TYR:HE1	2.18	0.57
2:X:450:ILE:HG23	2:X:522:ILE:HG13	1.87	0.57
2:X:514:ARG:CG	2:X:518:TYR:HE1	2.18	0.57
2:W:373:PHE:HB2	2:W:404:LEU:O	2.04	0.57
2:W:456:TYR:HB3	2:W:504:LYS:HB3	1.86	0.57
2:W:455:LYS:HG2	2:W:456:TYR:N	2.19	0.57
2:Y:576:ASN:HA	2:Y:580:THR:HG21	1.86	0.57
2:X:60:GLU:HG2	2:X:347:ASN:HB2	1.85	0.57
2:U:605:ARG:HE	2:U:607:VAL:HB	1.70	0.57
2:U:523:ASN:ND2	2:U:538:ASP:HA	2.19	0.57
2:V:455:LYS:HG2	2:V:456:TYR:N	2.19	0.57
2:Y:456:TYR:O	2:Y:503:ILE:HG12	2.04	0.57
2:W:23:SER:OG	2:W:483:ASN:HB2	2.04	0.57
1:C:151:GLU:OE2	1:C:161:ARG:NH1	2.37	0.57
2:W:596:LYS:HG2	2:W:601:ILE:O	2.04	0.57
2:W:581:ARG:HB2	2:W:623:PHE:CZ	2.39	0.57
2:Z:133:GLU:HB3	2:Z:142:LYS:HB3	1.86	0.57
2:W:624:VAL:HG12	2:W:643:VAL:HB	1.87	0.57
2:W:423:VAL:HG21	2:W:513:GLN:CD	2.25	0.57
2:V:373:PHE:HB2	2:V:405:VAL:HA	1.86	0.56
2:U:431:THR:O	2:U:432:ALA:HB2	2.05	0.56
2:Y:627:PHE:CE2	2:Y:640:LEU:HD23	2.40	0.56
2:W:571:ARG:HG3	2:W:572:LEU:N	2.20	0.56
2:U:133:GLU:HB3	2:U:142:LYS:HB3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:373:PHE:HB2	2:U:404:LEU:O	2.04	0.56
2:U:373:PHE:HB2	2:U:405:VAL:HA	1.86	0.56
2:Z:514:ARG:CG	2:Z:518:TYR:HE1	2.18	0.56
2:Z:523:ASN:ND2	2:Z:538:ASP:HA	2.19	0.56
2:Y:450:ILE:HG23	2:Y:522:ILE:HG13	1.86	0.56
2:V:391:LYS:HZ1	2:V:440:ASN:ND2	2.00	0.56
2:Z:605:ARG:HE	2:Z:607:VAL:HB	1.70	0.56
2:V:605:ARG:HE	2:V:607:VAL:HB	1.70	0.56
1:B:66:ALA:O	1:B:68:VAL:N	2.38	0.56
2:U:456:TYR:HB3	2:U:504:LYS:HB3	1.86	0.56
2:U:450:ILE:N	2:U:540:THR:CG2	2.66	0.56
2:U:514:ARG:CG	2:U:518:TYR:HE1	2.18	0.56
2:V:373:PHE:HB2	2:V:404:LEU:O	2.04	0.56
2:V:456:TYR:O	2:V:503:ILE:HG12	2.04	0.56
2:Z:373:PHE:HB2	2:Z:404:LEU:O	2.05	0.56
2:Z:558:ASN:HA	2:Z:561:LYS:HE2	1.86	0.56
2:Z:627:PHE:CE2	2:Z:640:LEU:HD23	2.41	0.56
2:Z:627:PHE:HZ	2:Z:640:LEU:HD23	1.69	0.56
2:Y:523:ASN:ND2	2:Y:538:ASP:HA	2.19	0.56
2:X:558:ASN:HA	2:X:561:LYS:HE2	1.87	0.56
2:Y:23:SER:HG	2:Y:483:ASN:HB3	1.71	0.56
2:W:178:LEU:CD2	2:W:178:LEU:N	2.66	0.56
2:W:576:ASN:HA	2:W:580:THR:HG21	1.86	0.56
2:Y:596:LYS:HG2	2:Y:601:ILE:O	2.05	0.56
2:X:596:LYS:HG2	2:X:601:ILE:O	2.04	0.56
1:F:114:ILE:HG12	1:F:115:LYS:N	2.20	0.56
2:U:627:PHE:HZ	2:U:640:LEU:HD23	1.70	0.56
2:Z:456:TYR:O	2:Z:503:ILE:HG12	2.04	0.56
2:Y:455:LYS:HG2	2:Y:456:TYR:N	2.19	0.56
2:X:373:PHE:HB2	2:X:404:LEU:O	2.05	0.56
2:X:627:PHE:CD1	2:X:629:ILE:HG13	2.40	0.56
2:X:624:VAL:HG12	2:X:643:VAL:HB	1.87	0.56
2:U:283:VAL:HG21	2:U:323:ILE:HD13	1.88	0.56
2:U:585:ARG:HH21	2:U:606:VAL:HG12	1.70	0.56
2:X:605:ARG:HE	2:X:607:VAL:HB	1.70	0.56
2:V:585:ARG:HH21	2:V:606:VAL:HG12	1.71	0.56
2:V:627:PHE:CD1	2:V:629:ILE:HG13	2.41	0.56
2:X:557:PHE:HE1	2:X:629:ILE:HB	1.68	0.56
1:B:69:GLU:OE2	1:B:126:TYR:OH	2.18	0.56
2:Y:423:VAL:HG21	2:Y:513:GLN:CD	2.25	0.56
2:Z:585:ARG:HH21	2:Z:606:VAL:HG12	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:558:ASN:HA	2:V:561:LYS:HE2	1.87	0.56
2:Z:373:PHE:HB2	2:Z:405:VAL:HA	1.86	0.56
2:Y:614:THR:HG23	2:Y:615:PRO:O	2.05	0.56
2:V:133:GLU:HB3	2:V:142:LYS:HB3	1.86	0.56
2:V:283:VAL:HG21	2:V:323:ILE:HD13	1.88	0.56
2:W:585:ARG:HH21	2:W:606:VAL:HG12	1.71	0.56
2:Z:627:PHE:CD1	2:Z:629:ILE:HG13	2.40	0.56
2:X:627:PHE:CE2	2:X:640:LEU:HD23	2.40	0.56
2:X:627:PHE:HZ	2:X:640:LEU:HD23	1.68	0.56
2:X:576:ASN:HA	2:X:580:THR:HG21	1.86	0.56
2:X:423:VAL:HG21	2:X:513:GLN:CD	2.25	0.56
2:Z:283:VAL:HG21	2:Z:323:ILE:HD13	1.88	0.56
2:U:635:ILE:HG23	2:U:635:ILE:O	2.06	0.56
2:U:456:TYR:O	2:U:503:ILE:HG12	2.04	0.56
2:U:499:ILE:HG13	2:U:502:VAL:CG2	2.35	0.56
2:V:627:PHE:CE2	2:V:640:LEU:HD23	2.40	0.56
2:X:450:ILE:HD13	2:X:522:ILE:HD12	1.86	0.56
2:W:450:ILE:HG23	2:W:522:ILE:HG13	1.86	0.56
2:X:431:THR:O	2:X:432:ALA:HB2	2.06	0.56
2:Y:571:ARG:HG3	2:Y:572:LEU:N	2.19	0.56
2:Z:150:ILE:HG22	2:Z:167:TRP:HZ3	1.71	0.56
2:Y:518:TYR:HE2	2:Y:536:TYR:HB2	1.69	0.56
2:W:50:LEU:HD12	2:W:50:LEU:C	2.26	0.56
2:V:50:LEU:HD12	2:V:50:LEU:C	2.26	0.56
2:Y:605:ARG:HE	2:Y:607:VAL:HB	1.70	0.56
2:Z:635:ILE:HG23	2:Z:635:ILE:O	2.06	0.56
2:Y:283:VAL:HG21	2:Y:323:ILE:HD13	1.87	0.56
2:U:450:ILE:HD13	2:U:522:ILE:HD12	1.87	0.56
2:Z:450:ILE:HG23	2:Z:522:ILE:HG13	1.86	0.56
2:W:627:PHE:CD1	2:W:629:ILE:HG13	2.40	0.56
2:Z:431:THR:O	2:Z:432:ALA:HB2	2.06	0.56
2:X:50:LEU:HD12	2:X:50:LEU:C	2.26	0.56
2:U:571:ARG:HG3	2:U:572:LEU:N	2.20	0.56
2:Z:596:LYS:HG2	2:Z:601:ILE:O	2.06	0.56
2:U:302:LYS:HD3	2:U:306:ASP:HA	1.88	0.56
2:V:302:LYS:HD3	2:V:306:ASP:HA	1.88	0.56
2:V:450:ILE:HG23	2:V:522:ILE:HG13	1.87	0.55
2:X:450:ILE:N	2:X:540:THR:CG2	2.66	0.55
2:W:431:THR:O	2:W:432:ALA:HB2	2.06	0.55
2:U:50:LEU:C	2:U:50:LEU:HD12	2.26	0.55
1:D:124:THR:HG23	1:D:126:TYR:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:150:ILE:HG22	2:Z:167:TRP:CZ3	2.41	0.55
2:Y:46:ASN:HB2	2:Y:49:ASP:HB2	1.88	0.55
2:Y:514:ARG:CG	2:Y:518:TYR:HE1	2.18	0.55
2:V:431:THR:O	2:V:432:ALA:HB2	2.05	0.55
2:Z:50:LEU:HD12	2:Z:50:LEU:C	2.26	0.55
2:Y:84:VAL:CG1	2:Y:85:ASP:O	2.53	0.55
2:X:381:GLU:HB3	2:X:385:THR:HG23	1.88	0.55
2:X:236:ILE:HD12	2:X:236:ILE:H	1.71	0.55
2:Y:585:ARG:HH21	2:Y:606:VAL:HG12	1.70	0.55
2:U:236:ILE:H	2:U:236:ILE:HD12	1.71	0.55
2:X:585:ARG:HH21	2:X:606:VAL:HG12	1.71	0.55
2:U:627:PHE:CD1	2:U:629:ILE:HG13	2.40	0.55
2:V:23:SER:HG	2:V:483:ASN:HB3	1.68	0.55
2:Z:539:LYS:HG2	2:Z:541:ALA:N	2.22	0.55
2:X:23:SER:HG	2:X:483:ASN:HB3	1.70	0.55
2:Y:627:PHE:HZ	2:Y:640:LEU:HD23	1.70	0.55
2:U:84:VAL:CG1	2:U:85:ASP:O	2.54	0.55
1:D:69:GLU:OE2	1:D:126:TYR:OH	2.13	0.55
1:F:19:ASP:OD2	1:F:213:TYR:OH	2.22	0.55
1:E:124:THR:HG23	1:E:126:TYR:H	1.71	0.55
2:W:605:ARG:HE	2:W:607:VAL:HB	1.70	0.55
2:W:150:ILE:HG22	2:W:167:TRP:HZ3	1.72	0.55
2:Z:446:THR:C	2:Z:539:LYS:HE3	2.21	0.55
2:W:558:ASN:HA	2:W:561:LYS:HE2	1.87	0.55
2:Y:431:THR:O	2:Y:432:ALA:HB2	2.06	0.55
2:Z:84:VAL:CG1	2:Z:85:ASP:O	2.54	0.55
2:Y:236:ILE:H	2:Y:236:ILE:HD12	1.71	0.55
2:V:635:ILE:HG23	2:V:635:ILE:O	2.06	0.55
2:Z:503:ILE:O	2:Z:504:LYS:HB2	2.06	0.55
2:X:454:TYR:HE2	2:X:469:PRO:CB	2.19	0.55
2:W:454:TYR:HE2	2:W:469:PRO:CB	2.19	0.55
2:W:627:PHE:CE2	2:W:640:LEU:HD23	2.40	0.55
2:W:570:TYR:CD2	2:W:584:PHE:CZ	2.95	0.55
2:V:596:LYS:HG2	2:V:601:ILE:O	2.05	0.55
2:X:150:ILE:HG22	2:X:167:TRP:HZ3	1.72	0.55
2:X:635:ILE:O	2:X:635:ILE:HG23	2.06	0.55
2:W:557:PHE:HE1	2:W:629:ILE:HB	1.69	0.55
2:X:89:ALA:HB3	2:X:194:LEU:HD11	1.88	0.55
1:E:19:ASP:HA	1:E:22:SER:HB2	1.89	0.55
1:D:114:ILE:HG12	1:D:115:LYS:H	1.71	0.55
2:V:150:ILE:HG22	2:V:167:TRP:HZ3	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:630:GLN:HE21	2:U:636:ASN:H	1.55	0.55
2:V:454:TYR:HE2	2:V:469:PRO:CB	2.19	0.55
2:Z:454:TYR:HE2	2:Z:469:PRO:CB	2.19	0.55
2:Y:50:LEU:HD12	2:Y:50:LEU:C	2.26	0.55
2:V:571:ARG:HG3	2:V:572:LEU:N	2.20	0.55
2:Y:150:ILE:HG22	2:Y:167:TRP:HZ3	1.72	0.55
2:W:302:LYS:HD3	2:W:306:ASP:HA	1.88	0.55
2:U:624:VAL:HG12	2:U:643:VAL:HB	1.87	0.55
2:U:454:TYR:HE2	2:U:469:PRO:CB	2.19	0.55
2:V:539:LYS:HD2	2:V:554:ARG:HD2	1.89	0.55
2:V:539:LYS:HG2	2:V:541:ALA:N	2.22	0.55
2:Y:503:ILE:O	2:Y:504:LYS:HB2	2.06	0.55
2:V:84:VAL:CG1	2:V:85:ASP:O	2.53	0.55
2:V:381:GLU:HB3	2:V:385:THR:HG23	1.88	0.55
1:F:124:THR:CG2	1:F:130:MET:HG2	2.37	0.55
2:W:274:GLN:H	2:W:278:GLN:NE2	2.05	0.55
2:V:347:ASN:O	2:V:348:ALA:C	2.45	0.55
2:W:150:ILE:HG22	2:W:167:TRP:CZ3	2.41	0.55
2:U:150:ILE:HG22	2:U:167:TRP:CZ3	2.42	0.55
2:V:23:SER:OG	2:V:483:ASN:HB2	2.04	0.55
2:V:557:PHE:HE1	2:V:629:ILE:HB	1.68	0.55
2:V:630:GLN:HE21	2:V:636:ASN:H	1.55	0.55
2:Y:455:LYS:HE2	2:Y:502:VAL:CG2	2.37	0.55
2:Z:571:ARG:HG3	2:Z:572:LEU:N	2.20	0.55
2:U:89:ALA:HB3	2:U:194:LEU:HD11	1.88	0.55
2:Z:89:ALA:HB3	2:Z:194:LEU:HD11	1.89	0.55
2:U:234:ILE:HB	2:U:340:LEU:HD12	1.89	0.55
2:Z:236:ILE:H	2:Z:236:ILE:HD12	1.72	0.55
2:V:206:THR:O	2:V:206:THR:HG22	2.07	0.55
2:Z:302:LYS:HD3	2:Z:306:ASP:HA	1.89	0.55
2:Z:455:LYS:HE2	2:Z:502:VAL:CG2	2.37	0.55
2:W:539:LYS:HG2	2:W:541:ALA:N	2.22	0.55
2:Z:570:TYR:HD2	2:Z:584:PHE:CZ	2.25	0.55
2:Y:381:GLU:HB3	2:Y:385:THR:HG23	1.88	0.55
2:X:347:ASN:O	2:X:348:ALA:C	2.46	0.55
1:C:114:ILE:HG12	1:C:115:LYS:H	1.72	0.55
2:Y:454:TYR:HE2	2:Y:469:PRO:CB	2.19	0.54
2:W:89:ALA:HB3	2:W:194:LEU:HD11	1.88	0.54
2:V:274:GLN:H	2:V:278:GLN:NE2	2.05	0.54
2:X:624:VAL:HB	2:X:643:VAL:HG12	1.89	0.54
2:Y:624:VAL:HG12	2:Y:643:VAL:HB	1.87	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:283:VAL:HG21	2:W:323:ILE:HD13	1.89	0.54
2:V:624:VAL:HG12	2:V:643:VAL:HB	1.87	0.54
1:A:6:TYR:N	1:A:204:ASP:OD2	2.38	0.54
2:U:206:THR:HG22	2:U:206:THR:O	2.07	0.54
2:Y:206:THR:HG22	2:Y:206:THR:O	2.07	0.54
2:Z:539:LYS:HD2	2:Z:554:ARG:HD2	1.89	0.54
2:Y:539:LYS:HD2	2:Y:554:ARG:HD2	1.88	0.54
2:Z:382:SER:O	2:Z:383:LEU:C	2.45	0.54
2:W:381:GLU:HB3	2:W:385:THR:HG23	1.89	0.54
2:Z:274:GLN:H	2:Z:278:GLN:NE2	2.05	0.54
2:W:624:VAL:HB	2:W:643:VAL:HG12	1.89	0.54
2:X:234:ILE:HB	2:X:340:LEU:HD12	1.89	0.54
2:Z:624:VAL:HG12	2:Z:643:VAL:HB	1.88	0.54
2:V:526:THR:HG23	2:V:535:LEU:CD1	2.37	0.54
2:Z:526:THR:HG23	2:Z:535:LEU:CD1	2.37	0.54
2:X:455:LYS:HE2	2:X:502:VAL:CG2	2.37	0.54
2:V:570:TYR:CD2	2:V:584:PHE:CZ	2.95	0.54
2:Z:570:TYR:CD2	2:Z:584:PHE:CZ	2.95	0.54
2:U:570:TYR:HD2	2:U:584:PHE:CZ	2.26	0.54
2:X:570:TYR:CD2	2:X:584:PHE:CZ	2.95	0.54
2:X:618:ILE:HG23	2:X:619:ASP:N	2.22	0.54
2:Y:382:SER:O	2:Y:383:LEU:C	2.46	0.54
2:W:382:SER:O	2:W:383:LEU:C	2.46	0.54
2:Y:274:GLN:H	2:Y:278:GLN:NE2	2.05	0.54
2:X:274:GLN:H	2:X:278:GLN:NE2	2.05	0.54
2:U:150:ILE:HG22	2:U:167:TRP:HZ3	1.73	0.54
1:A:6:TYR:CD2	1:A:208:LEU:HG	2.42	0.54
2:V:234:ILE:HB	2:V:340:LEU:HD12	1.89	0.54
2:W:635:ILE:HG23	2:W:635:ILE:O	2.06	0.54
2:Y:635:ILE:HG23	2:Y:635:ILE:O	2.06	0.54
2:X:503:ILE:O	2:X:504:LYS:HB2	2.06	0.54
2:X:526:THR:HG23	2:X:535:LEU:CD1	2.37	0.54
2:U:570:TYR:CD2	2:U:584:PHE:CZ	2.95	0.54
2:U:381:GLU:HB3	2:U:385:THR:HG23	1.88	0.54
2:X:90:LYS:HB2	2:X:344:LEU:HB3	1.90	0.54
2:W:206:THR:O	2:W:206:THR:HG22	2.07	0.54
2:X:539:LYS:HG2	2:X:541:ALA:N	2.22	0.54
2:Y:150:ILE:HG22	2:Y:167:TRP:CZ3	2.42	0.54
2:U:624:VAL:HB	2:U:643:VAL:HG12	1.89	0.54
2:Y:90:LYS:HB2	2:Y:344:LEU:HB3	1.90	0.54
2:X:283:VAL:HG21	2:X:323:ILE:HD13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:236:ILE:H	2:W:236:ILE:HD12	1.73	0.54
2:U:539:LYS:HD2	2:U:554:ARG:HD2	1.89	0.54
2:U:539:LYS:HG2	2:U:541:ALA:N	2.22	0.54
2:V:455:LYS:HE2	2:V:502:VAL:CG2	2.37	0.54
2:Y:526:THR:HG23	2:Y:535:LEU:CD1	2.37	0.54
2:Y:570:TYR:HD2	2:Y:584:PHE:CZ	2.26	0.54
2:Y:580:THR:O	2:Y:584:PHE:HD1	1.91	0.54
2:U:580:THR:O	2:U:584:PHE:HD1	1.91	0.54
2:X:84:VAL:CG1	2:X:85:ASP:O	2.53	0.54
2:W:84:VAL:CG1	2:W:85:ASP:O	2.54	0.54
2:W:347:ASN:O	2:W:348:ALA:C	2.45	0.54
2:X:150:ILE:HG22	2:X:167:TRP:CZ3	2.41	0.54
2:V:150:ILE:HG22	2:V:167:TRP:CZ3	2.42	0.54
2:V:236:ILE:HD12	2:V:236:ILE:H	1.71	0.54
2:X:244:TYR:CD2	2:X:273:PRO:HD2	2.43	0.54
2:W:234:ILE:HB	2:W:340:LEU:HD12	1.89	0.54
2:Z:206:THR:O	2:Z:206:THR:HG22	2.07	0.54
2:U:455:LYS:HE2	2:U:502:VAL:CG2	2.37	0.54
2:X:580:THR:O	2:X:584:PHE:HD1	1.91	0.54
2:X:382:SER:O	2:X:383:LEU:C	2.45	0.54
2:Y:244:TYR:CD2	2:Y:273:PRO:HD2	2.43	0.54
2:X:46:ASN:HB2	2:X:49:ASP:HB2	1.89	0.54
2:X:302:LYS:HD3	2:X:306:ASP:HA	1.88	0.54
2:Z:46:ASN:HB2	2:Z:49:ASP:HB2	1.88	0.54
2:U:503:ILE:O	2:U:504:LYS:HB2	2.06	0.54
2:Z:523:ASN:CG	2:Z:538:ASP:HA	2.29	0.54
2:W:455:LYS:HE2	2:W:502:VAL:CG2	2.37	0.54
2:W:503:ILE:O	2:W:504:LYS:HB2	2.06	0.54
2:Z:228:GLY:HA2	2:Z:345:SER:CB	2.31	0.54
2:X:570:TYR:HD2	2:X:584:PHE:CZ	2.25	0.54
2:Y:302:LYS:HD3	2:Y:306:ASP:HA	1.89	0.54
2:U:46:ASN:HB2	2:U:49:ASP:HB2	1.90	0.54
2:Z:408:SER:CB	2:Z:451:ASP:HB3	2.38	0.54
2:X:379:ALA:HB1	2:X:454:TYR:OH	1.73	0.54
2:Y:630:GLN:HE21	2:Y:636:ASN:H	1.55	0.54
2:V:570:TYR:HD2	2:V:584:PHE:CZ	2.26	0.54
2:Y:89:ALA:HB3	2:Y:194:LEU:HD11	1.89	0.54
2:U:371:GLN:HB3	2:U:484:VAL:HG23	1.90	0.54
2:Z:630:GLN:HE21	2:Z:636:ASN:H	1.55	0.54
2:W:526:THR:HG23	2:W:535:LEU:CD1	2.37	0.54
2:W:228:GLY:HA2	2:W:345:SER:CB	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:570:TYR:HD2	2:W:584:PHE:CZ	2.25	0.54
2:X:371:GLN:HB3	2:X:484:VAL:HG23	1.89	0.54
2:W:371:GLN:HB3	2:W:484:VAL:HG23	1.90	0.54
2:V:173:SER:N	2:V:174:SER:HA	2.22	0.54
2:W:90:LYS:HB2	2:W:344:LEU:HB3	1.90	0.54
2:V:627:PHE:HZ	2:V:640:LEU:HD23	1.69	0.53
2:Y:570:TYR:CD2	2:Y:584:PHE:CZ	2.95	0.53
2:V:89:ALA:HB3	2:V:194:LEU:HD11	1.88	0.53
2:Z:347:ASN:O	2:Z:348:ALA:C	2.45	0.53
2:V:46:ASN:HB2	2:V:49:ASP:HB2	1.89	0.53
2:W:244:TYR:CD2	2:W:273:PRO:HD2	2.43	0.53
1:B:125:ARG:HH21	1:B:184:ARG:HG2	1.73	0.53
2:X:630:GLN:HE21	2:X:636:ASN:H	1.55	0.53
2:X:51:VAL:HG22	2:X:65:PHE:HZ	1.72	0.53
2:W:228:GLY:HA2	2:W:345:SER:H	1.73	0.53
2:Z:580:THR:O	2:Z:584:PHE:HD1	1.91	0.53
1:B:109:TYR:HB3	1:B:161:ARG:NH2	2.20	0.53
2:V:371:GLN:HB3	2:V:484:VAL:HG23	1.91	0.53
2:Z:381:GLU:HB3	2:Z:385:THR:HG23	1.89	0.53
2:U:274:GLN:H	2:U:278:GLN:NE2	2.05	0.53
2:Z:234:ILE:HB	2:Z:340:LEU:HD12	1.89	0.53
2:W:46:ASN:HB2	2:W:49:ASP:HB2	1.89	0.53
2:Z:244:TYR:CD2	2:Z:273:PRO:HD2	2.44	0.53
2:U:526:THR:HG23	2:U:535:LEU:CD1	2.37	0.53
2:X:539:LYS:HD2	2:X:554:ARG:HD2	1.89	0.53
2:W:627:PHE:HZ	2:W:640:LEU:HD23	1.69	0.53
2:W:51:VAL:HG22	2:W:65:PHE:HZ	1.73	0.53
2:U:382:SER:O	2:U:383:LEU:C	2.45	0.53
2:Z:451:ASP:OD2	2:Z:471:ALA:N	2.42	0.53
2:Y:449:ALA:HB2	2:Y:539:LYS:HA	1.90	0.53
2:Y:539:LYS:HG2	2:Y:541:ALA:N	2.23	0.53
2:U:51:VAL:HG22	2:U:65:PHE:HZ	1.73	0.53
2:U:228:GLY:HA2	2:U:345:SER:H	1.74	0.53
2:V:382:SER:O	2:V:383:LEU:C	2.45	0.53
2:Y:624:VAL:HB	2:Y:643:VAL:HG12	1.89	0.53
2:X:206:THR:HG22	2:X:206:THR:O	2.07	0.53
2:U:379:ALA:HB1	2:U:454:TYR:OH	1.74	0.53
2:W:539:LYS:HD2	2:W:554:ARG:HD2	1.89	0.53
2:W:580:THR:O	2:W:584:PHE:HD1	1.91	0.53
2:Y:172:SER:O	2:Y:174:SER:HA	2.09	0.53
2:U:244:TYR:CD2	2:U:273:PRO:HD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:503:ILE:O	2:V:504:LYS:HB2	2.06	0.53
2:V:557:PHE:HE2	2:V:631:PRO:CD	2.21	0.53
2:Z:562:THR:HG23	2:Z:563:ASN:N	2.24	0.53
2:X:517:LEU:CD2	2:X:524:PRO:HB3	2.39	0.53
2:W:451:ASP:OD2	2:W:471:ALA:N	2.42	0.53
2:V:580:THR:O	2:V:584:PHE:HD1	1.91	0.53
1:F:124:THR:HG23	1:F:126:TYR:H	1.73	0.53
2:Z:90:LYS:HB2	2:Z:344:LEU:HB3	1.90	0.53
2:U:557:PHE:HE2	2:U:631:PRO:CG	2.22	0.53
2:Y:446:THR:CB	2:Y:542:THR:HG22	2.39	0.53
2:W:618:ILE:HG23	2:W:619:ASP:N	2.24	0.53
2:Z:371:GLN:HB3	2:Z:484:VAL:HG23	1.90	0.53
2:Z:397:GLY:HA2	2:Z:403:CYS:SG	2.49	0.53
2:V:397:GLY:HA2	2:V:403:CYS:SG	2.49	0.53
2:Y:114:ASP:CG	2:Y:175:SER:HB2	2.28	0.53
2:W:374:ILE:HG23	2:W:472:ALA:HA	1.91	0.53
2:U:347:ASN:O	2:U:348:ALA:C	2.46	0.53
2:V:624:VAL:HB	2:V:643:VAL:HG12	1.90	0.53
2:V:90:LYS:HB2	2:V:344:LEU:HB3	1.90	0.53
2:U:557:PHE:HE2	2:U:631:PRO:CD	2.21	0.53
2:Y:408:SER:CB	2:Y:451:ASP:HB3	2.39	0.53
2:Y:451:ASP:OD2	2:Y:471:ALA:N	2.42	0.53
2:X:562:THR:HG23	2:X:563:ASN:N	2.24	0.53
2:W:562:THR:HG23	2:W:563:ASN:N	2.24	0.53
2:V:228:GLY:HA2	2:V:345:SER:H	1.74	0.53
2:V:618:ILE:HG23	2:V:619:ASP:N	2.23	0.53
2:W:397:GLY:HA2	2:W:403:CYS:SG	2.49	0.53
2:Z:172:SER:O	2:Z:174:SER:HA	2.09	0.53
2:Z:114:ASP:CG	2:Z:175:SER:HB2	2.29	0.53
1:D:124:THR:CG2	1:D:130:MET:HG2	2.39	0.53
2:Z:624:VAL:HB	2:Z:643:VAL:HG12	1.89	0.53
2:Z:374:ILE:HG23	2:Z:472:ALA:HA	1.91	0.53
2:V:399:VAL:HG12	2:V:399:VAL:O	2.09	0.53
2:Z:448:ALA:HB3	2:Z:540:THR:OG1	2.09	0.53
2:Y:523:ASN:CG	2:Y:538:ASP:HA	2.29	0.53
2:X:557:PHE:HE2	2:X:631:PRO:CG	2.22	0.53
2:W:449:ALA:HB2	2:W:539:LYS:HA	1.91	0.53
2:U:172:SER:O	2:U:174:SER:HA	2.08	0.53
2:X:173:SER:N	2:X:174:SER:HA	2.23	0.53
2:X:595:ASN:CB	2:X:601:ILE:HD12	2.39	0.53
2:X:275:THR:OG1	2:X:278:GLN:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:234:ILE:HB	2:Y:340:LEU:HD12	1.89	0.53
1:B:19:ASP:HA	1:B:22:SER:HB2	1.90	0.53
2:X:374:ILE:HG23	2:X:472:ALA:HA	1.91	0.53
2:X:198:ILE:HG23	2:X:201:ALA:HB2	1.91	0.53
2:U:523:ASN:CG	2:U:538:ASP:HA	2.29	0.53
2:Y:448:ALA:HB3	2:Y:540:THR:OG1	2.09	0.53
2:X:557:PHE:HE2	2:X:631:PRO:CD	2.21	0.53
2:W:448:ALA:HB3	2:W:540:THR:OG1	2.09	0.53
2:Z:51:VAL:HG22	2:Z:65:PHE:HZ	1.73	0.53
2:Y:397:GLY:HA2	2:Y:403:CYS:SG	2.49	0.53
2:X:446:THR:CB	2:X:542:THR:HG22	2.39	0.52
2:W:408:SER:CB	2:W:451:ASP:HB3	2.38	0.52
2:V:51:VAL:HG22	2:V:65:PHE:HZ	1.74	0.52
2:W:275:THR:OG1	2:W:278:GLN:HG3	2.09	0.52
1:E:26:ILE:HD11	1:E:37:ILE:HD11	1.91	0.52
2:W:198:ILE:HG23	2:W:201:ALA:HB2	1.91	0.52
2:V:511:GLN:HE21	2:V:511:GLN:HA	1.74	0.52
2:Y:399:VAL:O	2:Y:399:VAL:HG12	2.09	0.52
1:A:56:TRP:HB3	1:A:71:ILE:HD13	1.91	0.52
2:U:449:ALA:HB2	2:U:539:LYS:HA	1.91	0.52
2:V:408:SER:CB	2:V:451:ASP:HB3	2.38	0.52
2:V:446:THR:CB	2:V:542:THR:HG22	2.39	0.52
2:X:449:ALA:HB2	2:X:539:LYS:HA	1.92	0.52
2:W:557:PHE:HE2	2:W:631:PRO:CG	2.22	0.52
2:Y:618:ILE:HG23	2:Y:619:ASP:N	2.23	0.52
2:Z:618:ILE:HG23	2:Z:619:ASP:N	2.23	0.52
2:Z:576:ASN:HB3	2:Z:620:ARG:NH2	2.25	0.52
2:W:595:ASN:CB	2:W:601:ILE:HD12	2.39	0.52
2:W:172:SER:O	2:W:174:SER:HA	2.09	0.52
2:V:114:ASP:CG	2:V:175:SER:HB2	2.29	0.52
2:U:374:ILE:HG23	2:U:472:ALA:HA	1.91	0.52
2:Y:347:ASN:O	2:Y:348:ALA:C	2.45	0.52
2:V:562:THR:HG23	2:V:563:ASN:N	2.24	0.52
2:V:557:PHE:HE2	2:V:631:PRO:CG	2.22	0.52
2:Z:446:THR:CB	2:Z:542:THR:HG22	2.39	0.52
2:X:502:VAL:HG12	2:X:504:LYS:H	1.74	0.52
2:X:523:ASN:CG	2:X:538:ASP:HA	2.29	0.52
2:W:523:ASN:CG	2:W:538:ASP:HA	2.29	0.52
2:W:630:GLN:HE21	2:W:636:ASN:H	1.57	0.52
2:X:228:GLY:HA2	2:X:345:SER:H	1.73	0.52
2:V:391:LYS:HE3	2:V:441:PHE:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:173:SER:N	2:Y:174:SER:HA	2.22	0.52
2:V:275:THR:OG1	2:V:278:GLN:HG3	2.10	0.52
2:U:408:SER:CB	2:U:451:ASP:HB3	2.39	0.52
2:U:517:LEU:CD2	2:U:524:PRO:HB3	2.39	0.52
2:U:562:THR:HG23	2:U:563:ASN:N	2.24	0.52
2:V:518:TYR:O	2:V:519:GLN:HB3	2.10	0.52
2:Z:449:ALA:HB2	2:Z:539:LYS:HA	1.92	0.52
2:Z:557:PHE:HE2	2:Z:631:PRO:CG	2.22	0.52
2:Y:557:PHE:HE2	2:Y:631:PRO:CD	2.22	0.52
1:A:124:THR:CG2	1:A:130:MET:HG2	2.40	0.52
2:V:374:ILE:HG23	2:V:472:ALA:HA	1.92	0.52
2:Z:275:THR:OG1	2:Z:278:GLN:HG3	2.09	0.52
2:U:90:LYS:HB2	2:U:344:LEU:HB3	1.90	0.52
2:V:244:TYR:CD2	2:V:273:PRO:HD2	2.43	0.52
2:X:448:ALA:HB3	2:X:540:THR:OG1	2.09	0.52
2:X:451:ASP:OD2	2:X:471:ALA:N	2.42	0.52
2:W:517:LEU:CD2	2:W:524:PRO:HB3	2.38	0.52
2:Y:562:THR:HG23	2:Y:563:ASN:N	2.24	0.52
2:Y:51:VAL:HG22	2:Y:65:PHE:HZ	1.73	0.52
2:Y:371:GLN:HB3	2:Y:484:VAL:HG23	1.90	0.52
2:Y:84:VAL:HG13	2:Y:89:ALA:HB2	1.92	0.52
2:X:114:ASP:CG	2:X:175:SER:HB2	2.29	0.52
1:F:66:ALA:C	1:F:68:VAL:H	2.13	0.52
2:U:399:VAL:O	2:U:399:VAL:HG12	2.09	0.52
2:Y:453:ASN:H	2:Y:453:ASN:HD22	1.58	0.52
2:V:451:ASP:OD2	2:V:471:ALA:N	2.42	0.52
2:Y:454:TYR:HE2	2:Y:469:PRO:HB3	1.75	0.52
2:X:408:SER:CB	2:X:451:ASP:HB3	2.39	0.52
2:W:502:VAL:HG12	2:W:504:LYS:H	1.75	0.52
2:X:51:VAL:HG22	2:X:65:PHE:CZ	2.45	0.52
2:X:397:GLY:HA2	2:X:403:CYS:SG	2.49	0.52
2:X:172:SER:O	2:X:174:SER:HA	2.09	0.52
1:B:27:LYS:HE2	1:B:29:GLN:HG2	1.91	0.52
2:U:448:ALA:HB3	2:U:540:THR:OG1	2.09	0.52
2:V:517:LEU:CD2	2:V:524:PRO:HB3	2.39	0.52
2:V:523:ASN:CG	2:V:538:ASP:HA	2.29	0.52
2:Z:518:TYR:O	2:Z:519:GLN:HB3	2.10	0.52
2:Z:557:PHE:HE2	2:Z:631:PRO:CD	2.21	0.52
2:W:518:TYR:O	2:W:519:GLN:HB3	2.10	0.52
2:Y:228:GLY:HA2	2:Y:345:SER:H	1.74	0.52
1:C:109:TYR:HB3	1:C:161:ARG:NH2	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:178:LEU:CD2	2:X:178:LEU:N	2.66	0.52
2:U:582:SER:O	2:U:583:SER:HB3	2.10	0.52
2:W:114:ASP:CG	2:W:175:SER:HB2	2.30	0.52
2:Y:275:THR:OG1	2:Y:278:GLN:HG3	2.10	0.52
2:Z:29:LEU:O	2:Z:80:VAL:HA	2.10	0.52
2:W:29:LEU:O	2:W:80:VAL:HA	2.10	0.52
2:U:451:ASP:OD2	2:U:471:ALA:N	2.42	0.52
2:V:448:ALA:HB3	2:V:540:THR:OG1	2.10	0.52
2:Z:517:LEU:CD2	2:Z:524:PRO:HB3	2.39	0.52
2:W:446:THR:CB	2:W:542:THR:HG22	2.39	0.52
2:Y:557:PHE:HE2	2:Y:631:PRO:CG	2.22	0.52
2:Z:228:GLY:HA2	2:Z:345:SER:H	1.75	0.52
2:U:618:ILE:HG23	2:U:619:ASP:N	2.23	0.52
2:U:84:VAL:HG13	2:U:89:ALA:HB2	1.92	0.52
2:U:397:GLY:HA2	2:U:403:CYS:SG	2.49	0.52
2:Y:595:ASN:CB	2:Y:601:ILE:HD12	2.39	0.52
2:V:198:ILE:HG23	2:V:201:ALA:HB2	1.92	0.52
2:Y:29:LEU:O	2:Y:80:VAL:HA	2.09	0.52
2:Y:374:ILE:HG23	2:Y:472:ALA:HA	1.91	0.52
2:V:172:SER:O	2:V:174:SER:HA	2.09	0.52
2:Y:582:SER:O	2:Y:583:SER:HB3	2.10	0.52
2:V:605:ARG:HD3	2:V:608:CYS:SG	2.50	0.52
2:U:237:GLU:HG3	2:U:337:ILE:CD1	2.40	0.52
1:A:106:VAL:HG12	1:A:107:SER:H	1.74	0.52
2:V:29:LEU:O	2:V:80:VAL:HA	2.10	0.52
2:Z:453:ASN:HD22	2:Z:453:ASN:H	1.58	0.52
2:X:453:ASN:H	2:X:453:ASN:HD22	1.58	0.52
2:X:518:TYR:HE2	2:X:536:TYR:HB2	1.70	0.52
2:W:51:VAL:HG22	2:W:65:PHE:CZ	2.45	0.52
2:U:391:LYS:HE3	2:U:441:PHE:HA	1.92	0.52
2:V:595:ASN:CB	2:V:601:ILE:HD12	2.39	0.52
2:U:275:THR:OG1	2:U:278:GLN:HG3	2.09	0.52
2:X:29:LEU:O	2:X:80:VAL:HA	2.10	0.52
2:U:518:TYR:O	2:U:519:GLN:HB3	2.10	0.51
2:Y:518:TYR:O	2:Y:519:GLN:HB3	2.10	0.51
2:U:228:GLY:HA2	2:U:345:SER:N	2.25	0.51
2:W:228:GLY:HA2	2:W:345:SER:N	2.25	0.51
2:X:582:SER:O	2:X:583:SER:HB3	2.10	0.51
2:U:114:ASP:CG	2:U:175:SER:HB2	2.29	0.51
2:W:399:VAL:HG12	2:W:399:VAL:O	2.09	0.51
2:Z:454:TYR:HE2	2:Z:469:PRO:HB3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:454:TYR:HE2	2:X:469:PRO:HB3	1.76	0.51
2:Y:496:ARG:N	2:Y:534:VAL:HG11	2.25	0.51
2:W:518:TYR:HE2	2:W:536:TYR:HB2	1.69	0.51
2:U:496:ARG:N	2:U:534:VAL:HG11	2.25	0.51
2:X:228:GLY:HA2	2:X:345:SER:N	2.25	0.51
2:Y:576:ASN:HB3	2:Y:620:ARG:NH2	2.26	0.51
2:W:173:SER:N	2:W:174:SER:HA	2.22	0.51
2:V:30:ALA:HB3	2:V:359:TRP:CD2	2.46	0.51
2:Z:198:ILE:HG23	2:Z:201:ALA:HB2	1.92	0.51
2:Y:511:GLN:HE21	2:Y:511:GLN:HA	1.75	0.51
2:V:449:ALA:HB2	2:V:539:LYS:HA	1.92	0.51
2:Y:502:VAL:HG12	2:Y:504:LYS:H	1.74	0.51
2:W:557:PHE:HE2	2:W:631:PRO:CD	2.21	0.51
2:X:84:VAL:HG13	2:X:89:ALA:HB2	1.92	0.51
2:W:582:SER:O	2:W:583:SER:HB3	2.10	0.51
2:U:198:ILE:HG23	2:U:201:ALA:HB2	1.92	0.51
2:Z:511:GLN:HE21	2:Z:511:GLN:HA	1.76	0.51
2:W:511:GLN:HA	2:W:511:GLN:HE21	1.75	0.51
2:U:539:LYS:HD3	2:U:541:ALA:HB2	1.92	0.51
2:W:454:TYR:HE2	2:W:469:PRO:HB3	1.75	0.51
2:V:496:ARG:N	2:V:534:VAL:HG11	2.25	0.51
2:Z:496:ARG:N	2:Z:534:VAL:HG11	2.25	0.51
2:X:391:LYS:HE3	2:X:441:PHE:HA	1.92	0.51
2:W:391:LYS:HE3	2:W:441:PHE:HA	1.93	0.51
2:Z:25:GLY:HA2	2:Z:484:VAL:HG21	1.93	0.51
2:V:582:SER:O	2:V:583:SER:HB3	2.11	0.51
2:X:70:ASN:HB3	2:X:457:GLN:HE22	1.76	0.51
2:Y:198:ILE:HG23	2:Y:201:ALA:HB2	1.92	0.51
2:W:453:ASN:H	2:W:453:ASN:HD22	1.58	0.51
2:V:228:GLY:HA2	2:V:345:SER:N	2.25	0.51
2:Y:25:GLY:HA2	2:Y:484:VAL:HG21	1.93	0.51
2:U:194:LEU:HD23	2:U:195:LEU:N	2.26	0.51
2:Z:84:VAL:HG13	2:Z:89:ALA:HB2	1.93	0.51
2:Z:161:PRO:O	2:Z:186:LYS:HB3	2.11	0.51
2:U:605:ARG:O	2:U:609:ASP:HB2	2.10	0.51
2:U:453:ASN:H	2:U:453:ASN:HD22	1.58	0.51
2:U:446:THR:CB	2:U:542:THR:HG22	2.39	0.51
2:V:617:VAL:HG23	2:V:619:ASP:O	2.11	0.51
2:X:25:GLY:HA2	2:X:484:VAL:HG21	1.93	0.51
2:W:194:LEU:HD23	2:W:195:LEU:N	2.26	0.51
2:U:161:PRO:O	2:U:186:LYS:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:161:PRO:O	2:V:186:LYS:HB3	2.11	0.51
2:W:161:PRO:O	2:W:186:LYS:HB3	2.11	0.51
2:X:352:ALA:O	2:X:355:LEU:HB2	2.10	0.51
1:C:108:GLN:HB3	1:C:200:PRO:HD2	1.91	0.51
1:F:5:PHE:CE2	1:F:201:PRO:HB3	2.45	0.51
2:V:502:VAL:HG12	2:V:504:LYS:H	1.75	0.51
2:Z:539:LYS:HD3	2:Z:541:ALA:HB2	1.92	0.51
2:Y:51:VAL:HG22	2:Y:65:PHE:CZ	2.45	0.51
2:Z:595:ASN:CB	2:Z:601:ILE:HD12	2.39	0.51
2:U:173:SER:N	2:U:174:SER:HA	2.22	0.51
2:W:215:LYS:CE	2:W:329:ASN:HD21	2.24	0.51
2:Y:605:ARG:O	2:Y:609:ASP:HB2	2.10	0.51
2:W:237:GLU:HG3	2:W:337:ILE:CD1	2.40	0.51
2:U:511:GLN:HA	2:U:511:GLN:HE21	1.75	0.51
2:X:518:TYR:O	2:X:519:GLN:HB3	2.10	0.51
2:Z:51:VAL:HG22	2:Z:65:PHE:CZ	2.45	0.51
2:Z:617:VAL:HG23	2:Z:619:ASP:O	2.11	0.51
2:X:617:VAL:HG23	2:X:619:ASP:O	2.11	0.51
2:W:617:VAL:HG23	2:W:619:ASP:O	2.10	0.51
2:W:25:GLY:HA2	2:W:484:VAL:HG21	1.93	0.51
2:U:25:GLY:HA2	2:U:484:VAL:HG21	1.93	0.51
1:E:124:THR:CG2	1:E:130:MET:HG2	2.41	0.51
2:X:161:PRO:O	2:X:186:LYS:HB3	2.11	0.51
2:Z:605:ARG:O	2:Z:609:ASP:HB2	2.10	0.51
2:X:605:ARG:HD3	2:X:608:CYS:SG	2.50	0.51
2:W:605:ARG:O	2:W:609:ASP:HB2	2.11	0.51
2:X:254:ILE:HG12	2:X:337:ILE:HB	1.93	0.51
2:X:237:GLU:HG3	2:X:337:ILE:CD1	2.41	0.51
1:A:212:THR:HA	1:A:222:ASP:HA	1.92	0.51
2:Z:30:ALA:HB3	2:Z:359:TRP:CD2	2.46	0.51
2:V:453:ASN:H	2:V:453:ASN:HD22	1.58	0.51
2:W:407:CYS:N	2:W:449:ALA:O	2.44	0.51
2:Y:617:VAL:HG23	2:Y:619:ASP:O	2.11	0.51
2:V:84:VAL:HG13	2:V:89:ALA:HB2	1.92	0.51
2:W:84:VAL:HG13	2:W:89:ALA:HB2	1.92	0.51
2:Z:582:SER:O	2:Z:583:SER:HB3	2.11	0.51
2:U:300:GLY:O	2:U:302:LYS:HG3	2.11	0.51
2:X:30:ALA:HB3	2:X:359:TRP:CD2	2.46	0.51
2:V:237:GLU:HG3	2:V:337:ILE:CD1	2.41	0.51
2:Z:391:LYS:HE3	2:Z:441:PHE:HA	1.92	0.51
1:D:151:GLU:OE2	1:D:161:ARG:NH1	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:71:PHE:CD2	2:Y:71:PHE:C	2.85	0.51
2:W:605:ARG:HD3	2:W:608:CYS:SG	2.51	0.51
2:Y:220:PRO:HD2	2:Y:338:LEU:HD11	1.93	0.51
2:Y:30:ALA:HB3	2:Y:359:TRP:CD2	2.46	0.51
2:Z:237:GLU:HG3	2:Z:337:ILE:CD1	2.41	0.51
2:Z:352:ALA:O	2:Z:355:LEU:HB2	2.10	0.51
2:U:450:ILE:HD13	2:U:522:ILE:CD1	2.42	0.50
2:Z:407:CYS:N	2:Z:449:ALA:O	2.44	0.50
2:Z:543:SER:O	2:Z:544:VAL:HG23	2.11	0.50
2:Y:517:LEU:CD2	2:Y:524:PRO:HB3	2.39	0.50
2:W:547:PRO:HB2	2:W:553:VAL:HG11	1.93	0.50
2:U:51:VAL:HG22	2:U:65:PHE:CZ	2.46	0.50
2:X:605:ARG:O	2:X:609:ASP:HB2	2.11	0.50
2:V:300:GLY:O	2:V:302:LYS:HG3	2.11	0.50
2:X:300:GLY:O	2:X:302:LYS:HG3	2.11	0.50
1:C:147:THR:HG23	1:C:163:ILE:HB	1.93	0.50
1:C:19:ASP:HA	1:C:22:SER:HB2	1.93	0.50
2:X:399:VAL:HG12	2:X:399:VAL:O	2.09	0.50
2:U:407:CYS:N	2:U:449:ALA:O	2.45	0.50
2:W:627:PHE:CD1	2:W:629:ILE:CD1	2.94	0.50
2:Y:627:PHE:CD1	2:Y:629:ILE:CD1	2.94	0.50
2:Z:228:GLY:HA2	2:Z:345:SER:N	2.26	0.50
2:Y:391:LYS:HE3	2:Y:441:PHE:HA	1.92	0.50
2:V:391:LYS:NZ	2:V:440:ASN:HD21	1.92	0.50
2:U:595:ASN:CB	2:U:601:ILE:HD12	2.39	0.50
2:Z:194:LEU:HD23	2:Z:195:LEU:N	2.26	0.50
2:Y:583:SER:CA	2:Y:586:THR:HG22	2.42	0.50
2:U:605:ARG:HD3	2:U:608:CYS:SG	2.51	0.50
2:W:300:GLY:O	2:W:302:LYS:HG3	2.12	0.50
2:Y:237:GLU:HG3	2:Y:337:ILE:CD1	2.41	0.50
2:U:29:LEU:O	2:U:80:VAL:HA	2.10	0.50
2:V:450:ILE:HD13	2:V:522:ILE:CD1	2.41	0.50
2:Z:502:VAL:HG12	2:Z:504:LYS:H	1.75	0.50
2:Y:446:THR:C	2:Y:539:LYS:HE3	2.21	0.50
2:X:547:PRO:HB2	2:X:553:VAL:HG11	1.94	0.50
2:Z:173:SER:N	2:Z:174:SER:HA	2.22	0.50
2:V:25:GLY:HA2	2:V:484:VAL:HG21	1.93	0.50
2:W:583:SER:CA	2:W:586:THR:HG22	2.42	0.50
2:Y:605:ARG:HD3	2:Y:608:CYS:SG	2.51	0.50
2:W:254:ILE:HG12	2:W:337:ILE:HB	1.93	0.50
2:U:352:ALA:O	2:U:355:LEU:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:557:PHE:CE1	2:U:638:ILE:HG22	2.47	0.50
2:V:407:CYS:N	2:V:449:ALA:O	2.45	0.50
2:V:560:LEU:HD13	2:V:591:TYR:HE2	1.76	0.50
2:V:51:VAL:HG22	2:V:65:PHE:CZ	2.46	0.50
2:X:194:LEU:HD23	2:X:195:LEU:N	2.27	0.50
2:U:588:THR:HG23	2:U:589:ALA:N	2.27	0.50
2:Y:352:ALA:O	2:Y:355:LEU:HB2	2.10	0.50
2:U:220:PRO:HD2	2:U:338:LEU:HD11	1.94	0.50
2:U:30:ALA:HB3	2:U:359:TRP:CD2	2.46	0.50
2:W:352:ALA:O	2:W:355:LEU:HB2	2.11	0.50
2:V:539:LYS:HD3	2:V:541:ALA:HB2	1.93	0.50
2:Z:560:LEU:HD13	2:Z:591:TYR:HE2	1.76	0.50
2:W:379:ALA:HB2	2:W:454:TYR:CE2	2.46	0.50
2:W:557:PHE:CE1	2:W:638:ILE:HG22	2.47	0.50
2:Y:194:LEU:HD23	2:Y:195:LEU:N	2.26	0.50
2:V:583:SER:CA	2:V:586:THR:HG22	2.41	0.50
2:Z:300:GLY:O	2:Z:302:LYS:HG3	2.11	0.50
2:V:254:ILE:HG12	2:V:337:ILE:HB	1.93	0.50
1:A:147:THR:HG23	1:A:163:ILE:HB	1.92	0.50
2:Z:588:THR:HG23	2:Z:589:ALA:N	2.27	0.50
1:D:223:LEU:HD12	1:D:224:PRO:HD2	1.92	0.50
2:X:511:GLN:HE21	2:X:511:GLN:HA	1.75	0.50
2:U:454:TYR:HE2	2:U:469:PRO:HB3	1.75	0.50
2:V:627:PHE:CD1	2:V:629:ILE:CD1	2.95	0.50
2:V:627:PHE:CE1	2:V:629:ILE:HD12	2.47	0.50
2:X:450:ILE:CG1	2:X:451:ASP:N	2.53	0.50
2:W:557:PHE:CE2	2:W:631:PRO:HG3	2.47	0.50
2:Y:557:PHE:CE2	2:Y:631:PRO:HG3	2.47	0.50
2:W:622:GLU:HG2	2:W:644:ALA:O	2.12	0.50
2:X:576:ASN:HB3	2:X:620:ARG:NH2	2.25	0.50
2:Y:289:ILE:N	2:Y:289:ILE:HD12	2.24	0.50
2:Z:71:PHE:CD2	2:Z:71:PHE:C	2.85	0.50
2:W:71:PHE:CD2	2:W:71:PHE:C	2.85	0.50
2:Y:161:PRO:O	2:Y:186:LYS:HB3	2.11	0.50
2:Z:605:ARG:HD3	2:Z:608:CYS:SG	2.51	0.50
2:Z:70:ASN:HB3	2:Z:457:GLN:HE22	1.77	0.50
2:Z:627:PHE:CD1	2:Z:629:ILE:CD1	2.95	0.50
2:Z:627:PHE:CZ	2:Z:640:LEU:CD2	2.95	0.50
2:Y:560:LEU:HD13	2:Y:591:TYR:HE2	1.76	0.50
2:Z:215:LYS:CE	2:Z:329:ASN:HD21	2.25	0.50
2:Y:236:ILE:HD12	2:Y:236:ILE:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:588:THR:HG23	2:Y:589:ALA:N	2.27	0.50
2:U:627:PHE:CE1	2:U:629:ILE:HD12	2.47	0.50
2:Z:557:PHE:CE1	2:Z:638:ILE:HG22	2.47	0.50
2:X:407:CYS:N	2:X:449:ALA:O	2.44	0.50
2:Y:557:PHE:CE1	2:Y:638:ILE:CG2	2.95	0.50
2:Y:228:GLY:HA2	2:Y:345:SER:N	2.25	0.50
2:U:617:VAL:HG23	2:U:619:ASP:O	2.11	0.50
2:U:583:SER:CA	2:U:586:THR:HG22	2.42	0.50
2:X:289:ILE:HD12	2:X:289:ILE:N	2.24	0.50
1:A:124:THR:HG23	1:A:126:TYR:H	1.77	0.50
2:W:70:ASN:HB3	2:W:457:GLN:HE22	1.76	0.50
1:C:66:ALA:O	1:C:68:VAL:N	2.45	0.50
2:Z:220:PRO:HD2	2:Z:338:LEU:HD11	1.94	0.50
1:D:66:ALA:O	1:D:68:VAL:N	2.45	0.50
1:E:114:ILE:HG12	1:E:115:LYS:H	1.76	0.50
2:V:352:ALA:O	2:V:355:LEU:HB2	2.11	0.50
2:V:446:THR:C	2:V:539:LYS:HE3	2.20	0.50
2:Z:557:PHE:CE2	2:Z:631:PRO:HG3	2.47	0.50
2:Z:557:PHE:CE1	2:Z:638:ILE:CG2	2.95	0.50
2:Y:407:CYS:N	2:Y:449:ALA:O	2.44	0.50
2:X:543:SER:O	2:X:544:VAL:HG23	2.12	0.50
2:X:557:PHE:CE2	2:X:631:PRO:HG3	2.47	0.50
2:W:523:ASN:HD21	2:W:538:ASP:CA	2.25	0.50
2:V:71:PHE:C	2:V:71:PHE:CD2	2.85	0.50
1:E:12:ARG:NH2	1:E:199:TYR:OH	2.45	0.50
2:V:605:ARG:O	2:V:609:ASP:HB2	2.11	0.50
2:Y:624:VAL:CG1	2:Y:643:VAL:HG12	2.42	0.50
1:B:77:LEU:HD13	1:B:120:LEU:HD23	1.94	0.50
2:U:362:PHE:HA	2:U:368:VAL:HG21	1.94	0.50
2:U:543:SER:O	2:U:544:VAL:HG23	2.12	0.49
2:V:454:TYR:HE2	2:V:469:PRO:HB3	1.75	0.49
2:X:539:LYS:HD3	2:X:541:ALA:HB2	1.94	0.49
2:W:627:PHE:CE1	2:W:629:ILE:HD12	2.47	0.49
2:W:557:PHE:CE1	2:W:638:ILE:CG2	2.95	0.49
2:U:383:LEU:O	2:U:386:ALA:HB3	2.13	0.49
2:X:583:SER:CA	2:X:586:THR:HG22	2.41	0.49
2:Z:583:SER:CA	2:Z:586:THR:HG22	2.42	0.49
2:U:289:ILE:HD12	2:U:289:ILE:N	2.24	0.49
2:X:215:LYS:CE	2:X:329:ASN:HD21	2.25	0.49
2:Y:215:LYS:CE	2:Y:329:ASN:HD21	2.25	0.49
2:V:236:ILE:N	2:V:236:ILE:HD12	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:70:ASN:HB3	2:V:457:GLN:HE22	1.77	0.49
1:B:74:ARG:NH2	1:B:231:GLU:OE2	2.43	0.49
2:Z:362:PHE:HA	2:Z:368:VAL:HG21	1.94	0.49
2:X:220:PRO:HD2	2:X:338:LEU:HD11	1.94	0.49
2:Z:399:VAL:O	2:Z:399:VAL:HG12	2.10	0.49
2:W:450:ILE:HD13	2:W:522:ILE:CD1	2.41	0.49
2:V:622:GLU:HG2	2:V:644:ALA:O	2.12	0.49
2:X:622:GLU:HG2	2:X:644:ALA:O	2.12	0.49
2:V:304:ILE:HG13	2:V:305:TYR:CD2	2.47	0.49
2:X:236:ILE:HD12	2:X:236:ILE:N	2.27	0.49
2:Y:300:GLY:O	2:Y:302:LYS:HG3	2.11	0.49
2:U:523:ASN:HD21	2:U:538:ASP:CA	2.26	0.49
2:Z:450:ILE:HD13	2:Z:522:ILE:CD1	2.41	0.49
2:Y:450:ILE:HD13	2:Y:522:ILE:CD1	2.41	0.49
2:X:627:PHE:CD1	2:X:629:ILE:CD1	2.94	0.49
2:X:627:PHE:CD1	2:X:629:ILE:HD12	2.48	0.49
2:W:539:LYS:HD3	2:W:541:ALA:HB2	1.93	0.49
2:U:304:ILE:HG13	2:U:305:TYR:CD2	2.47	0.49
2:Z:289:ILE:N	2:Z:289:ILE:HD12	2.24	0.49
2:W:304:ILE:HG13	2:W:305:TYR:CD2	2.47	0.49
2:X:624:VAL:CG1	2:X:643:VAL:HG12	2.42	0.49
2:W:30:ALA:HB3	2:W:359:TRP:CD2	2.46	0.49
1:D:147:THR:HG23	1:D:163:ILE:HB	1.94	0.49
2:U:502:VAL:HG12	2:U:504:LYS:H	1.75	0.49
2:V:523:ASN:HD21	2:V:538:ASP:CA	2.25	0.49
2:Z:523:ASN:HD21	2:Z:538:ASP:CA	2.26	0.49
2:Z:627:PHE:CE1	2:Z:629:ILE:HD12	2.47	0.49
2:Y:450:ILE:CG1	2:Y:451:ASP:N	2.53	0.49
2:Y:543:SER:O	2:Y:544:VAL:HG23	2.12	0.49
2:W:543:SER:O	2:W:544:VAL:HG23	2.12	0.49
2:W:627:PHE:CZ	2:W:640:LEU:CD2	2.95	0.49
2:Z:383:LEU:O	2:Z:386:ALA:HB3	2.12	0.49
2:U:236:ILE:N	2:U:236:ILE:HD12	2.27	0.49
2:Z:236:ILE:HD12	2:Z:236:ILE:N	2.27	0.49
2:W:236:ILE:N	2:W:236:ILE:HD12	2.28	0.49
2:Y:511:GLN:NE2	2:Y:511:GLN:HA	2.28	0.49
2:U:557:PHE:CE2	2:U:631:PRO:HG3	2.47	0.49
2:V:456:TYR:HB2	2:V:467:TRP:CZ3	2.48	0.49
2:V:518:TYR:HE2	2:V:536:TYR:HB2	1.70	0.49
2:Z:547:PRO:HB2	2:Z:553:VAL:HG11	1.94	0.49
2:Z:557:PHE:CZ	2:Z:638:ILE:CG2	2.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:523:ASN:HD21	2:Y:538:ASP:CA	2.25	0.49
2:Y:547:PRO:HB2	2:Y:553:VAL:HG11	1.94	0.49
2:X:560:LEU:HD13	2:X:591:TYR:HE2	1.76	0.49
2:X:627:PHE:CE1	2:X:629:ILE:HD12	2.47	0.49
1:D:109:TYR:HB3	1:D:161:ARG:NH2	2.18	0.49
2:V:576:ASN:HB3	2:V:620:ARG:NH2	2.25	0.49
2:Y:304:ILE:HG13	2:Y:305:TYR:CD2	2.47	0.49
2:U:70:ASN:HB3	2:U:457:GLN:HE22	1.76	0.49
2:V:588:THR:HG23	2:V:589:ALA:N	2.27	0.49
2:X:245:ALA:C	2:X:247:GLY:H	2.16	0.49
2:U:557:PHE:CE1	2:U:638:ILE:CG2	2.95	0.49
2:U:560:LEU:HD13	2:U:591:TYR:HE2	1.76	0.49
2:V:409:PRO:C	2:V:454:TYR:CE1	2.71	0.49
2:X:376:GLY:HA2	2:X:390:GLN:NE2	2.28	0.49
2:V:615:PRO:O	2:V:617:VAL:HG22	2.13	0.49
2:X:615:PRO:O	2:X:617:VAL:HG22	2.13	0.49
2:V:194:LEU:HD23	2:V:195:LEU:N	2.26	0.49
2:U:71:PHE:CD2	2:U:71:PHE:C	2.85	0.49
2:Z:304:ILE:HG13	2:Z:305:TYR:CD2	2.47	0.49
2:Y:362:PHE:HA	2:Y:368:VAL:HG21	1.94	0.49
2:V:245:ALA:C	2:V:247:GLY:H	2.15	0.49
2:U:109:ASN:O	2:U:177:GLY:HA3	2.13	0.49
2:U:627:PHE:CD1	2:U:629:ILE:CD1	2.95	0.49
2:V:557:PHE:CE2	2:V:631:PRO:HG3	2.47	0.49
2:V:557:PHE:CE1	2:V:638:ILE:HG22	2.47	0.49
2:Y:456:TYR:HB2	2:Y:467:TRP:CZ3	2.48	0.49
2:X:456:TYR:HB2	2:X:467:TRP:CZ3	2.48	0.49
2:X:450:ILE:HD13	2:X:522:ILE:CD1	2.41	0.49
2:X:557:PHE:CE1	2:X:638:ILE:HG22	2.47	0.49
2:W:560:LEU:HD13	2:W:591:TYR:HE2	1.76	0.49
2:W:627:PHE:CD1	2:W:629:ILE:HD12	2.48	0.49
2:Y:627:PHE:CE1	2:Y:629:ILE:HD12	2.47	0.49
1:E:66:ALA:C	1:E:68:VAL:H	2.13	0.49
2:V:511:GLN:NE2	2:V:511:GLN:HA	2.27	0.49
2:Y:254:ILE:HG12	2:Y:337:ILE:HB	1.93	0.49
1:B:212:THR:HA	1:B:222:ASP:HA	1.94	0.49
2:V:629:ILE:HG22	2:V:630:GLN:N	2.28	0.49
2:Y:376:GLY:HA2	2:Y:390:GLN:NE2	2.28	0.49
2:Y:448:ALA:CB	2:Y:540:THR:OG1	2.61	0.49
2:W:615:PRO:O	2:W:617:VAL:HG22	2.13	0.49
2:V:624:VAL:CG1	2:V:643:VAL:HG12	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:624:VAL:CG1	2:Z:643:VAL:HG12	2.43	0.49
2:V:220:PRO:HD2	2:V:338:LEU:HD11	1.94	0.49
2:U:456:TYR:HB2	2:U:467:TRP:CZ3	2.48	0.49
2:W:456:TYR:HB2	2:W:467:TRP:CZ3	2.48	0.49
2:Y:557:PHE:CE1	2:Y:638:ILE:HG22	2.47	0.49
2:U:228:GLY:HA2	2:U:345:SER:CB	2.32	0.49
2:Z:615:PRO:O	2:Z:617:VAL:HG22	2.13	0.49
2:X:304:ILE:HG13	2:X:305:TYR:CD2	2.47	0.49
2:X:71:PHE:C	2:X:71:PHE:CD2	2.85	0.49
2:U:254:ILE:HG12	2:U:337:ILE:HB	1.93	0.49
1:B:6:TYR:CD2	1:B:208:LEU:HG	2.48	0.49
2:U:547:PRO:HB2	2:U:553:VAL:HG11	1.94	0.49
2:V:379:ALA:HB2	2:V:454:TYR:CE2	2.46	0.49
2:V:627:PHE:CD1	2:V:629:ILE:HD12	2.48	0.49
2:Z:456:TYR:HB2	2:Z:467:TRP:CZ3	2.48	0.49
2:X:445:SER:HB3	2:X:448:ALA:HB2	1.95	0.49
2:X:557:PHE:CE1	2:X:638:ILE:CG2	2.95	0.49
2:W:376:GLY:HA2	2:W:390:GLN:NE2	2.28	0.49
2:W:445:SER:HB3	2:W:448:ALA:HB2	1.95	0.49
2:U:622:GLU:HG2	2:U:644:ALA:O	2.12	0.49
2:V:383:LEU:O	2:V:386:ALA:HB3	2.13	0.49
2:Z:511:GLN:NE2	2:Z:511:GLN:HA	2.28	0.49
2:Z:245:ALA:C	2:Z:247:GLY:H	2.15	0.49
2:Y:109:ASN:O	2:Y:177:GLY:HA3	2.13	0.49
2:Y:70:ASN:HB3	2:Y:457:GLN:HE22	1.77	0.49
2:U:446:THR:C	2:U:539:LYS:HE3	2.21	0.48
2:V:557:PHE:CE1	2:V:638:ILE:CG2	2.95	0.48
2:X:523:ASN:HD21	2:X:538:ASP:CA	2.26	0.48
2:X:557:PHE:CZ	2:X:638:ILE:CG2	2.95	0.48
2:U:615:PRO:O	2:U:617:VAL:HG22	2.13	0.48
2:Z:622:GLU:HG2	2:Z:644:ALA:O	2.12	0.48
2:W:624:VAL:CG1	2:W:643:VAL:HG12	2.43	0.48
2:X:511:GLN:NE2	2:X:511:GLN:HA	2.28	0.48
2:V:362:PHE:HA	2:V:368:VAL:HG21	1.94	0.48
2:W:245:ALA:C	2:W:247:GLY:H	2.15	0.48
2:V:448:ALA:CB	2:V:540:THR:OG1	2.61	0.48
2:V:543:SER:O	2:V:544:VAL:HG23	2.12	0.48
2:V:547:PRO:HB2	2:V:553:VAL:HG11	1.94	0.48
2:Y:539:LYS:HD3	2:Y:541:ALA:HB2	1.94	0.48
2:Y:622:GLU:HG2	2:Y:644:ALA:O	2.12	0.48
2:X:362:PHE:HA	2:X:368:VAL:HG21	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:109:ASN:O	2:Z:177:GLY:HA3	2.13	0.48
2:U:456:TYR:CZ	2:U:465:ASN:HB3	2.48	0.48
2:V:376:GLY:HA2	2:V:390:GLN:NE2	2.28	0.48
2:V:408:SER:HA	2:V:451:ASP:O	2.14	0.48
2:Z:408:SER:HA	2:Z:451:ASP:O	2.13	0.48
2:Z:627:PHE:CD1	2:Z:629:ILE:HD12	2.48	0.48
2:W:448:ALA:O	2:W:540:THR:N	2.43	0.48
1:D:130:MET:HE2	1:D:188:TRP:CD2	2.48	0.48
2:W:511:GLN:NE2	2:W:511:GLN:HA	2.27	0.48
2:Z:254:ILE:HG12	2:Z:337:ILE:HB	1.93	0.48
1:C:124:THR:HG21	1:C:130:MET:HG2	1.95	0.48
2:U:408:SER:HA	2:U:451:ASP:O	2.13	0.48
2:Z:382:SER:CB	2:Z:385:THR:HG22	2.42	0.48
2:Y:383:LEU:O	2:Y:386:ALA:HB3	2.13	0.48
2:U:624:VAL:CG1	2:U:643:VAL:HG12	2.43	0.48
2:U:511:GLN:HA	2:U:511:GLN:NE2	2.28	0.48
2:V:453:ASN:H	2:V:453:ASN:ND2	2.11	0.48
2:Y:125:ILE:HD12	2:Y:153:LYS:HG2	1.95	0.48
2:W:109:ASN:O	2:W:177:GLY:HA3	2.13	0.48
2:U:245:ALA:C	2:U:247:GLY:H	2.16	0.48
2:W:220:PRO:HD2	2:W:338:LEU:HD11	1.94	0.48
2:U:518:TYR:HE2	2:U:536:TYR:HB2	1.70	0.48
2:U:448:ALA:CB	2:U:540:THR:OG1	2.61	0.48
2:U:627:PHE:CD1	2:U:629:ILE:HD12	2.48	0.48
2:Y:449:ALA:CB	2:Y:539:LYS:HA	2.44	0.48
2:Y:379:ALA:HB2	2:Y:454:TYR:CE2	2.46	0.48
2:Y:627:PHE:CD1	2:Y:629:ILE:HD12	2.48	0.48
2:X:413:THR:OG1	2:X:425:ASN:HB3	2.14	0.48
2:W:289:ILE:N	2:W:289:ILE:HD12	2.24	0.48
2:V:63:ASP:O	2:V:67:SER:HB2	2.14	0.48
2:Y:453:ASN:N	2:Y:453:ASN:ND2	2.62	0.48
1:D:6:TYR:CD2	1:D:208:LEU:HG	2.49	0.48
2:W:588:THR:HG23	2:W:589:ALA:N	2.27	0.48
1:F:54:ASN:HA	1:F:57:THR:HG22	1.95	0.48
2:X:588:THR:HG23	2:X:589:ALA:N	2.27	0.48
2:V:284:ARG:HA	2:V:288:ALA:O	2.14	0.48
2:U:629:ILE:HG22	2:U:630:GLN:N	2.28	0.48
2:V:627:PHE:CZ	2:V:640:LEU:CD2	2.95	0.48
2:Z:376:GLY:HA2	2:Z:390:GLN:NE2	2.28	0.48
2:Y:615:PRO:O	2:Y:617:VAL:HG22	2.13	0.48
2:Z:413:THR:OG1	2:Z:425:ASN:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:63:ASP:O	2:W:67:SER:HB2	2.14	0.48
2:Y:453:ASN:ND2	2:Y:453:ASN:H	2.11	0.48
2:Y:63:ASP:O	2:Y:67:SER:HB2	2.14	0.48
2:Z:536:TYR:CG	2:Z:537:GLY:N	2.82	0.48
2:Y:502:VAL:HG12	2:Y:503:ILE:N	2.28	0.48
2:X:448:ALA:CB	2:X:540:THR:OG1	2.61	0.48
2:W:446:THR:C	2:W:539:LYS:HE3	2.21	0.48
2:U:577:ASN:H	2:U:580:THR:CG2	2.27	0.48
2:W:383:LEU:O	2:W:386:ALA:HB3	2.13	0.48
2:X:63:ASP:O	2:X:67:SER:HB2	2.14	0.48
2:Z:453:ASN:ND2	2:Z:453:ASN:H	2.11	0.48
2:U:30:ALA:HB3	2:U:359:TRP:CE2	2.49	0.48
2:W:610:THR:HG23	2:W:611:THR:N	2.29	0.48
2:U:376:GLY:HA2	2:U:390:GLN:NE2	2.28	0.48
2:Z:448:ALA:CB	2:Z:540:THR:OG1	2.61	0.48
2:X:627:PHE:CZ	2:X:640:LEU:CD2	2.94	0.48
2:U:440:ASN:C	2:U:440:ASN:HD22	2.17	0.48
2:W:362:PHE:HA	2:W:368:VAL:HG21	1.94	0.48
2:V:109:ASN:O	2:V:177:GLY:HA3	2.13	0.48
2:X:125:ILE:HD12	2:X:153:LYS:HG2	1.96	0.48
2:U:284:ARG:HA	2:U:288:ALA:O	2.14	0.48
2:U:449:ALA:CB	2:U:539:LYS:HA	2.44	0.48
2:X:456:TYR:CZ	2:X:465:ASN:HB3	2.49	0.48
2:W:408:SER:HA	2:W:451:ASP:O	2.14	0.48
2:W:536:TYR:CG	2:W:537:GLY:N	2.82	0.48
2:W:449:ALA:CB	2:W:539:LYS:HA	2.44	0.48
2:Y:413:THR:OG1	2:Y:425:ASN:HB3	2.14	0.48
2:V:413:THR:OG1	2:V:425:ASN:HB3	2.14	0.48
2:W:453:ASN:H	2:W:453:ASN:ND2	2.11	0.48
2:X:109:ASN:O	2:X:177:GLY:HA3	2.13	0.48
2:W:285:ARG:O	2:W:286:ASN:HB2	2.14	0.48
2:Z:125:ILE:HD12	2:Z:153:LYS:HG2	1.96	0.48
2:Z:284:ARG:HA	2:Z:288:ALA:O	2.14	0.48
2:U:547:PRO:C	2:U:553:VAL:CG2	2.82	0.48
2:V:547:PRO:C	2:V:553:VAL:CG2	2.82	0.48
2:X:496:ARG:N	2:X:534:VAL:HG11	2.25	0.48
2:X:453:ASN:N	2:X:453:ASN:ND2	2.62	0.48
2:Y:23:SER:OG	2:Y:483:ASN:HB2	2.05	0.48
2:Y:629:ILE:HG22	2:Y:630:GLN:N	2.28	0.48
2:U:612:ASN:HD21	2:U:614:THR:HG22	1.79	0.48
2:Z:610:THR:HG23	2:Z:611:THR:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:610:THR:HG23	2:V:611:THR:N	2.29	0.48
2:Z:445:SER:HB3	2:Z:448:ALA:HB2	1.95	0.47
2:Y:456:TYR:CZ	2:Y:465:ASN:HB3	2.49	0.47
2:X:449:ALA:CB	2:X:539:LYS:HA	2.44	0.47
2:X:546:SER:N	2:X:547:PRO:HD2	2.29	0.47
2:V:577:ASN:H	2:V:580:THR:CG2	2.27	0.47
2:Z:171:ILE:CG2	2:Z:172:SER:H	2.25	0.47
2:U:382:SER:CB	2:U:385:THR:HG22	2.42	0.47
2:W:413:THR:OG1	2:W:425:ASN:HB3	2.14	0.47
2:Y:285:ARG:O	2:Y:286:ASN:HB2	2.14	0.47
2:Y:284:ARG:HA	2:Y:288:ALA:O	2.14	0.47
2:V:445:SER:HB3	2:V:448:ALA:HB2	1.95	0.47
2:X:629:ILE:HG22	2:X:630:GLN:N	2.28	0.47
2:W:629:ILE:HG22	2:W:630:GLN:N	2.28	0.47
2:W:440:ASN:C	2:W:440:ASN:HD22	2.17	0.47
2:Z:577:ASN:H	2:Z:580:THR:CG2	2.27	0.47
2:X:383:LEU:O	2:X:386:ALA:HB3	2.13	0.47
2:V:289:ILE:N	2:V:289:ILE:HD12	2.24	0.47
2:X:285:ARG:O	2:X:286:ASN:HB2	2.14	0.47
2:U:58:THR:H	2:U:61:THR:HB	1.79	0.47
2:U:285:ARG:O	2:U:286:ASN:HB2	2.14	0.47
2:V:285:ARG:O	2:V:286:ASN:HB2	2.14	0.47
2:U:445:SER:HB3	2:U:448:ALA:HB2	1.95	0.47
2:U:526:THR:OG1	2:U:535:LEU:HD21	2.15	0.47
2:W:448:ALA:CB	2:W:540:THR:OG1	2.62	0.47
2:W:456:TYR:CZ	2:W:465:ASN:HB3	2.49	0.47
2:Y:577:ASN:H	2:Y:580:THR:CG2	2.27	0.47
2:U:453:ASN:H	2:U:453:ASN:ND2	2.11	0.47
2:U:557:PHE:CZ	2:U:638:ILE:CG2	2.95	0.47
2:V:536:TYR:CG	2:V:537:GLY:N	2.82	0.47
2:V:546:SER:N	2:V:547:PRO:HD2	2.30	0.47
2:Z:502:VAL:HG12	2:Z:503:ILE:N	2.29	0.47
2:X:408:SER:HA	2:X:451:ASP:O	2.13	0.47
2:X:536:TYR:CG	2:X:537:GLY:N	2.82	0.47
2:Y:627:PHE:CZ	2:Y:640:LEU:CD2	2.95	0.47
2:Y:27:ALA:HB2	2:Y:71:PHE:CZ	2.49	0.47
2:Z:63:ASP:O	2:Z:67:SER:HB2	2.14	0.47
2:X:30:ALA:HB3	2:X:359:TRP:CE2	2.49	0.47
2:W:284:ARG:HA	2:W:288:ALA:O	2.14	0.47
2:Y:610:THR:HG23	2:Y:611:THR:N	2.29	0.47
2:X:37:PRO:HB2	2:X:40:GLN:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:5:PHE:CE2	1:E:201:PRO:HB3	2.50	0.47
2:Z:285:ARG:O	2:Z:286:ASN:HB2	2.14	0.47
2:U:546:SER:N	2:U:547:PRO:HD2	2.30	0.47
2:Z:407:CYS:O	2:Z:451:ASP:N	2.48	0.47
2:X:553:VAL:HG23	2:X:554:ARG:N	2.30	0.47
2:W:557:PHE:CZ	2:W:638:ILE:CG2	2.94	0.47
2:Y:440:ASN:C	2:Y:440:ASN:HD22	2.17	0.47
2:Z:440:ASN:C	2:Z:440:ASN:HD22	2.17	0.47
2:U:602:TYR:CG	2:U:603:GLU:N	2.83	0.47
2:Y:245:ALA:C	2:Y:247:GLY:H	2.15	0.47
2:V:456:TYR:CZ	2:V:465:ASN:HB3	2.49	0.47
2:Z:526:THR:OG1	2:Z:535:LEU:HD21	2.15	0.47
2:Y:407:CYS:O	2:Y:451:ASP:HB3	2.15	0.47
2:V:614:THR:HB	2:V:620:ARG:CA	2.40	0.47
2:W:576:ASN:HB3	2:W:620:ARG:NH2	2.25	0.47
2:Y:382:SER:CB	2:Y:385:THR:HG22	2.42	0.47
2:V:30:ALA:HB3	2:V:359:TRP:CE2	2.49	0.47
2:V:58:THR:H	2:V:61:THR:HB	1.79	0.47
2:Z:37:PRO:HB2	2:Z:40:GLN:HB2	1.96	0.47
2:W:125:ILE:HD12	2:W:153:LYS:HG2	1.96	0.47
1:A:114:ILE:HG12	1:A:115:LYS:N	2.29	0.47
2:U:536:TYR:CG	2:U:537:GLY:N	2.82	0.47
2:V:526:THR:OG1	2:V:535:LEU:HD21	2.15	0.47
2:V:561:LYS:HG3	2:V:562:THR:N	2.29	0.47
2:Z:407:CYS:O	2:Z:451:ASP:HB3	2.14	0.47
2:Z:449:ALA:CB	2:Z:539:LYS:HA	2.45	0.47
2:Z:456:TYR:CZ	2:Z:465:ASN:HB3	2.49	0.47
2:Z:546:SER:N	2:Z:547:PRO:HD2	2.30	0.47
2:Z:561:LYS:HG3	2:Z:562:THR:N	2.29	0.47
2:Y:445:SER:HB3	2:Y:448:ALA:HB2	1.95	0.47
2:Y:407:CYS:O	2:Y:451:ASP:N	2.48	0.47
2:Y:526:THR:HG21	2:Y:535:LEU:HD11	1.97	0.47
2:Y:536:TYR:CG	2:Y:537:GLY:N	2.82	0.47
2:Y:547:PRO:C	2:Y:553:VAL:CG2	2.82	0.47
2:X:407:CYS:O	2:X:451:ASP:N	2.47	0.47
2:W:536:TYR:CD2	2:W:537:GLY:N	2.83	0.47
2:W:561:LYS:HG3	2:W:562:THR:N	2.30	0.47
2:V:612:ASN:HD21	2:V:614:THR:HG22	1.80	0.47
2:Z:612:ASN:HD21	2:Z:614:THR:HG22	1.79	0.47
2:U:576:ASN:HB3	2:U:620:ARG:NH2	2.25	0.47
2:X:577:ASN:H	2:X:580:THR:CG2	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:27:ALA:HB3	2:Y:78:LEU:HD12	1.97	0.47
2:Z:27:ALA:HB2	2:Z:71:PHE:CZ	2.50	0.47
2:W:453:ASN:ND2	2:W:453:ASN:N	2.62	0.47
2:U:125:ILE:HD12	2:U:153:LYS:HG2	1.96	0.47
2:W:293:VAL:HG22	2:W:294:VAL:N	2.30	0.47
2:Y:37:PRO:HB2	2:Y:40:GLN:HB2	1.97	0.47
2:V:37:PRO:HB2	2:V:40:GLN:HB2	1.97	0.47
2:Z:151:ILE:HG13	2:Z:152:ALA:N	2.29	0.47
1:E:167:LEU:HD11	1:E:190:LEU:HD12	1.96	0.47
2:U:379:ALA:HB2	2:U:454:TYR:CE2	2.46	0.47
2:U:553:VAL:HG23	2:U:554:ARG:N	2.29	0.47
2:Z:629:ILE:HG22	2:Z:630:GLN:N	2.28	0.47
2:Y:408:SER:HA	2:Y:451:ASP:O	2.14	0.47
2:Y:546:SER:N	2:Y:547:PRO:HD2	2.29	0.47
2:W:407:CYS:O	2:W:451:ASP:N	2.48	0.47
2:V:440:ASN:HD22	2:V:440:ASN:C	2.17	0.47
2:W:577:ASN:H	2:W:580:THR:CG2	2.27	0.47
2:U:413:THR:OG1	2:U:425:ASN:HB3	2.14	0.47
2:V:583:SER:HA	2:V:586:THR:HG22	1.97	0.47
2:Z:583:SER:HA	2:Z:586:THR:HG22	1.97	0.47
2:U:27:ALA:HB2	2:U:71:PHE:CZ	2.50	0.47
2:U:63:ASP:O	2:U:67:SER:HB2	2.14	0.47
2:U:453:ASN:ND2	2:U:453:ASN:N	2.62	0.47
2:X:610:THR:HG23	2:X:611:THR:N	2.29	0.47
2:U:502:VAL:HG12	2:U:503:ILE:N	2.29	0.47
2:U:561:LYS:HG3	2:U:562:THR:N	2.29	0.47
2:V:536:TYR:CD2	2:V:537:GLY:N	2.83	0.47
2:Z:526:THR:HG21	2:Z:535:LEU:HD11	1.97	0.47
2:Y:560:LEU:HD12	2:Y:592:LEU:CD2	2.45	0.47
2:W:350:VAL:HG13	2:W:354:ASP:HB2	1.97	0.47
2:W:30:ALA:HB3	2:W:359:TRP:CE2	2.49	0.47
2:W:62:ALA:HB1	2:W:466:ARG:NE	2.30	0.47
2:X:284:ARG:HA	2:X:288:ALA:O	2.14	0.47
2:V:411:ARG:O	2:V:412:GLU:C	2.54	0.47
2:U:627:PHE:CZ	2:U:640:LEU:CD2	2.94	0.47
2:V:502:VAL:HG12	2:V:503:ILE:N	2.29	0.47
2:W:546:SER:N	2:W:547:PRO:HD2	2.30	0.47
2:X:440:ASN:C	2:X:440:ASN:HD22	2.17	0.47
2:W:391:LYS:NZ	2:W:440:ASN:HD21	1.92	0.47
2:Y:171:ILE:CG2	2:Y:172:SER:H	2.25	0.47
2:X:27:ALA:HB2	2:X:71:PHE:CZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:125:ILE:HD12	2:V:153:LYS:HG2	1.96	0.47
2:V:536:TYR:HD2	2:V:538:ASP:H	1.63	0.46
2:V:553:VAL:HG23	2:V:554:ARG:N	2.29	0.46
2:Z:560:LEU:HD12	2:Z:592:LEU:CD2	2.45	0.46
2:Y:526:THR:OG1	2:Y:535:LEU:HD21	2.15	0.46
2:Y:553:VAL:HG23	2:Y:554:ARG:N	2.30	0.46
2:X:514:ARG:CA	2:X:517:LEU:HG	2.45	0.46
2:X:536:TYR:CD2	2:X:537:GLY:N	2.83	0.46
2:X:627:PHE:HZ	2:X:640:LEU:CD2	2.28	0.46
2:Z:614:THR:HB	2:Z:620:ARG:CA	2.40	0.46
2:Z:621:ASN:CG	2:Z:622:GLU:H	2.19	0.46
2:Z:602:TYR:CG	2:Z:603:GLU:N	2.83	0.46
2:X:602:TYR:CG	2:X:603:GLU:N	2.82	0.46
2:W:583:SER:HA	2:W:586:THR:HG22	1.97	0.46
2:V:100:GLU:HG2	2:V:186:LYS:O	2.15	0.46
2:W:100:GLU:HG2	2:W:186:LYS:O	2.15	0.46
2:Y:30:ALA:HB3	2:Y:359:TRP:CE2	2.50	0.46
2:U:293:VAL:HG22	2:U:294:VAL:N	2.30	0.46
2:Z:58:THR:H	2:Z:61:THR:HB	1.80	0.46
2:U:407:CYS:O	2:U:451:ASP:N	2.48	0.46
2:V:407:CYS:O	2:V:451:ASP:N	2.49	0.46
2:V:526:THR:HG21	2:V:535:LEU:HD11	1.96	0.46
2:X:453:ASN:H	2:X:453:ASN:ND2	2.12	0.46
2:Y:621:ASN:CG	2:Y:622:GLU:H	2.19	0.46
2:Y:570:TYR:CD2	2:Y:584:PHE:CE2	2.95	0.46
2:X:601:ILE:HG22	2:X:602:TYR:N	2.31	0.46
2:W:71:PHE:C	2:W:73:GLN:H	2.19	0.46
2:V:453:ASN:N	2:V:453:ASN:ND2	2.62	0.46
2:V:62:ALA:HB1	2:V:466:ARG:NE	2.30	0.46
2:Y:151:ILE:HG13	2:Y:152:ALA:N	2.30	0.46
2:V:293:VAL:HG22	2:V:294:VAL:N	2.31	0.46
2:U:610:THR:HG23	2:U:611:THR:N	2.29	0.46
2:X:58:THR:H	2:X:61:THR:HB	1.79	0.46
2:X:62:ALA:HB1	2:X:466:ARG:NE	2.31	0.46
2:W:411:ARG:O	2:W:412:GLU:C	2.54	0.46
1:C:27:LYS:HB2	1:C:36:PHE:CE2	2.50	0.46
2:X:411:ARG:O	2:X:412:GLU:C	2.53	0.46
2:Z:627:PHE:HZ	2:Z:640:LEU:CD2	2.29	0.46
2:W:526:THR:OG1	2:W:535:LEU:HD21	2.15	0.46
2:W:560:LEU:HD12	2:W:592:LEU:CD2	2.45	0.46
2:Y:561:LYS:HG3	2:Y:562:THR:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:612:ASN:HD21	2:W:614:THR:HG22	1.79	0.46
2:V:602:TYR:CG	2:V:603:GLU:N	2.83	0.46
2:U:560:LEU:HD12	2:U:592:LEU:CD2	2.45	0.46
2:Y:536:TYR:CD2	2:Y:537:GLY:N	2.83	0.46
2:X:499:ILE:HD13	2:X:499:ILE:N	2.28	0.46
2:W:547:PRO:C	2:W:553:VAL:CG2	2.83	0.46
2:W:553:VAL:HG23	2:W:554:ARG:N	2.29	0.46
2:V:350:VAL:HG13	2:V:354:ASP:HB2	1.97	0.46
2:W:27:ALA:HB2	2:W:71:PHE:CZ	2.50	0.46
2:X:71:PHE:C	2:X:73:GLN:H	2.19	0.46
2:Y:100:GLU:HG2	2:Y:186:LYS:O	2.16	0.46
2:W:35:TRP:HB3	2:W:54:PHE:HA	1.98	0.46
2:Z:411:ARG:O	2:Z:412:GLU:C	2.54	0.46
2:U:411:ARG:O	2:U:412:GLU:C	2.54	0.46
2:V:151:ILE:HG13	2:V:152:ALA:N	2.30	0.46
2:U:538:ASP:HB2	2:U:539:LYS:H	1.42	0.46
2:V:627:PHE:HZ	2:V:640:LEU:CD2	2.29	0.46
2:V:557:PHE:CZ	2:V:638:ILE:CG2	2.95	0.46
2:X:517:LEU:HB2	2:X:522:ILE:HG23	1.94	0.46
2:X:547:PRO:C	2:X:553:VAL:CG2	2.83	0.46
2:X:560:LEU:HD12	2:X:592:LEU:CD2	2.45	0.46
2:W:602:TYR:CG	2:W:603:GLU:N	2.83	0.46
2:Z:30:ALA:HB3	2:Z:359:TRP:CE2	2.49	0.46
1:D:29:GLN:OE1	1:E:3:GLY:N	2.49	0.46
2:V:208:VAL:HG23	2:V:209:ASP:N	2.31	0.46
2:U:290:VAL:HG11	2:U:322:TYR:CD1	2.51	0.46
2:Y:293:VAL:HG22	2:Y:294:VAL:N	2.30	0.46
2:W:130:LYS:O	2:W:132:THR:HG23	2.16	0.46
2:X:290:VAL:HG11	2:X:322:TYR:CD1	2.50	0.46
2:V:449:ALA:CB	2:V:539:LYS:HA	2.45	0.46
2:V:544:VAL:CG1	2:V:545:PRO:HD2	2.46	0.46
2:Z:536:TYR:CD2	2:Z:537:GLY:N	2.83	0.46
2:X:526:THR:OG1	2:X:535:LEU:HD21	2.15	0.46
2:X:583:SER:HA	2:X:586:THR:HG22	1.97	0.46
2:U:27:ALA:HB3	2:U:78:LEU:HD12	1.98	0.46
2:V:71:PHE:C	2:V:73:GLN:N	2.69	0.46
2:W:71:PHE:C	2:W:73:GLN:N	2.69	0.46
1:C:19:ASP:OD2	1:C:213:TYR:OH	2.25	0.46
1:E:114:ILE:HG12	1:E:115:LYS:N	2.31	0.46
2:Y:62:ALA:HB1	2:Y:466:ARG:NE	2.31	0.46
2:U:35:TRP:HB3	2:U:54:PHE:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:35:TRP:HB3	2:Z:54:PHE:HA	1.98	0.46
2:U:517:LEU:HD13	2:U:524:PRO:CG	2.46	0.46
2:V:448:ALA:O	2:V:540:THR:N	2.42	0.46
2:X:561:LYS:HG3	2:X:562:THR:N	2.30	0.46
2:U:621:ASN:CG	2:U:622:GLU:H	2.19	0.46
2:V:173:SER:HA	2:V:174:SER:HB3	1.97	0.46
2:X:27:ALA:HB3	2:X:78:LEU:HD12	1.98	0.46
2:X:350:VAL:HG13	2:X:354:ASP:HB2	1.98	0.46
2:Z:100:GLU:HG2	2:Z:186:LYS:O	2.16	0.46
1:A:74:ARG:NH2	1:A:231:GLU:OE2	2.48	0.46
2:X:35:TRP:HB3	2:X:54:PHE:HA	1.98	0.46
1:D:212:THR:HA	1:D:222:ASP:HA	1.98	0.46
2:W:208:VAL:HG23	2:W:209:ASP:N	2.31	0.46
2:X:130:LYS:O	2:X:132:THR:HG23	2.16	0.46
2:Y:411:ARG:O	2:Y:412:GLU:C	2.54	0.46
2:V:517:LEU:HD13	2:V:524:PRO:CG	2.46	0.46
2:Y:517:LEU:HB2	2:Y:522:ILE:HG23	1.94	0.46
2:Y:602:TYR:CG	2:Y:603:GLU:N	2.83	0.46
2:Y:583:SER:HA	2:Y:586:THR:HG22	1.98	0.46
1:A:5:PHE:CE2	1:A:201:PRO:HB3	2.51	0.46
2:X:100:GLU:HG2	2:X:186:LYS:O	2.15	0.46
2:W:37:PRO:HB2	2:W:40:GLN:HB2	1.97	0.46
2:Y:252:LEU:HA	2:Y:253:PRO:HD3	1.80	0.46
2:Y:58:THR:H	2:Y:61:THR:HB	1.79	0.46
2:U:458:TYR:CE2	2:U:460:LYS:HA	2.51	0.46
2:U:526:THR:HG21	2:U:535:LEU:HD11	1.97	0.46
2:X:502:VAL:HG12	2:X:503:ILE:N	2.29	0.46
2:X:526:THR:HG21	2:X:535:LEU:HD11	1.97	0.46
2:W:502:VAL:HG12	2:W:503:ILE:N	2.30	0.46
2:W:544:VAL:CG1	2:W:545:PRO:HD2	2.46	0.46
2:V:228:GLY:HA2	2:V:345:SER:CB	2.32	0.46
2:W:621:ASN:CG	2:W:622:GLU:H	2.19	0.46
2:V:382:SER:CB	2:V:385:THR:HG22	2.42	0.46
2:U:71:PHE:C	2:U:73:GLN:N	2.69	0.46
2:W:27:ALA:HB3	2:W:78:LEU:HD12	1.98	0.46
1:E:130:MET:HE2	1:E:188:TRP:CD2	2.51	0.46
2:V:419:VAL:HA	2:V:422:ALA:CB	2.46	0.46
2:W:419:VAL:HA	2:W:422:ALA:CB	2.46	0.46
1:D:64:ASP:O	1:D:68:VAL:HG23	2.16	0.46
2:U:208:VAL:HG23	2:U:209:ASP:N	2.31	0.46
2:X:293:VAL:HG22	2:X:294:VAL:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:458:TYR:CE2	2:Z:460:LYS:HA	2.51	0.46
2:Y:208:VAL:HG23	2:Y:209:ASP:N	2.30	0.46
1:E:147:THR:HG23	1:E:163:ILE:HB	1.97	0.46
2:U:37:PRO:HB2	2:U:40:GLN:HB2	1.97	0.46
2:Z:307:SER:O	2:Z:309:ILE:HG23	2.16	0.46
2:V:514:ARG:CA	2:V:517:LEU:HG	2.44	0.46
2:Z:539:LYS:HE2	2:Z:541:ALA:CA	2.41	0.46
2:Z:553:VAL:HG23	2:Z:554:ARG:N	2.29	0.46
2:W:450:ILE:CG1	2:W:451:ASP:N	2.53	0.46
2:V:621:ASN:CG	2:V:622:GLU:H	2.19	0.46
2:X:621:ASN:CG	2:X:622:GLU:H	2.19	0.46
2:U:614:THR:HB	2:U:620:ARG:CA	2.41	0.46
2:Z:27:ALA:HB3	2:Z:78:LEU:HD12	1.98	0.46
2:Z:73:GLN:HB3	2:Z:500:LEU:HD12	1.98	0.46
2:Z:350:VAL:HG13	2:Z:354:ASP:HB2	1.97	0.46
2:U:350:VAL:HG13	2:U:354:ASP:HB2	1.97	0.46
2:V:624:VAL:HG12	2:V:643:VAL:CB	2.46	0.46
1:D:223:LEU:HA	1:D:224:PRO:HD3	1.81	0.46
2:Z:290:VAL:HG11	2:Z:322:TYR:CD1	2.50	0.46
2:U:211:GLN:OE1	2:U:328:GLN:HG2	2.16	0.46
2:W:290:VAL:HG11	2:W:322:TYR:CD1	2.50	0.46
1:D:19:ASP:HA	1:D:22:SER:HB2	1.98	0.46
2:Z:211:GLN:OE1	2:Z:328:GLN:HG2	2.16	0.46
2:U:627:PHE:HZ	2:U:640:LEU:CD2	2.29	0.45
2:V:521:ALA:HB3	2:V:540:THR:HA	1.99	0.45
2:Y:514:ARG:CA	2:Y:517:LEU:HG	2.45	0.45
2:W:496:ARG:N	2:W:534:VAL:HG11	2.25	0.45
2:Y:612:ASN:HD21	2:Y:614:THR:HG22	1.80	0.45
2:Z:601:ILE:HG22	2:Z:602:TYR:N	2.31	0.45
2:U:173:SER:HA	2:U:174:SER:HB3	1.97	0.45
2:W:171:ILE:CG2	2:W:172:SER:N	2.80	0.45
2:V:215:LYS:CE	2:V:329:ASN:HD21	2.25	0.45
2:Y:71:PHE:C	2:Y:73:GLN:N	2.69	0.45
2:V:27:ALA:HB2	2:V:71:PHE:CZ	2.51	0.45
2:U:100:GLU:HG2	2:U:186:LYS:O	2.16	0.45
2:U:624:VAL:HG12	2:U:643:VAL:CB	2.46	0.45
1:A:18:GLY:HA3	1:A:230:PHE:CZ	2.52	0.45
2:U:307:SER:O	2:U:309:ILE:HG23	2.16	0.45
2:X:458:TYR:CE2	2:X:460:LYS:HA	2.51	0.45
2:Y:458:TYR:CE2	2:Y:460:LYS:HA	2.51	0.45
1:B:114:ILE:HG12	1:B:115:LYS:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:536:TYR:CD2	2:U:537:GLY:N	2.83	0.45
2:U:544:VAL:CG1	2:U:545:PRO:HD2	2.47	0.45
2:V:544:VAL:CG1	2:V:545:PRO:N	2.78	0.45
2:V:560:LEU:HD12	2:V:592:LEU:CD2	2.46	0.45
2:Z:514:ARG:CA	2:Z:517:LEU:HG	2.45	0.45
2:U:50:LEU:HD12	2:U:51:VAL:N	2.32	0.45
2:V:596:LYS:HD3	2:V:596:LYS:C	2.37	0.45
2:Z:173:SER:HA	2:Z:174:SER:HB3	1.98	0.45
2:W:601:ILE:HG22	2:W:602:TYR:N	2.31	0.45
2:Z:71:PHE:C	2:Z:73:GLN:N	2.69	0.45
2:W:511:GLN:CA	2:W:511:GLN:HE21	2.29	0.45
2:Z:208:VAL:HG23	2:Z:209:ASP:N	2.31	0.45
2:V:290:VAL:HG11	2:V:322:TYR:CD1	2.51	0.45
1:D:110:ASN:HA	1:D:111:PRO:HD3	1.69	0.45
2:W:58:THR:H	2:W:61:THR:HB	1.80	0.45
1:A:19:ASP:HA	1:A:22:SER:HB2	1.97	0.45
2:X:536:TYR:HD2	2:X:538:ASP:H	1.63	0.45
2:X:561:LYS:CB	2:X:640:LEU:HD21	2.47	0.45
2:W:390:GLN:HE22	2:W:408:SER:H	1.64	0.45
2:Z:570:TYR:CD2	2:Z:584:PHE:CE2	2.95	0.45
2:W:173:SER:HA	2:W:174:SER:HB3	1.98	0.45
2:W:382:SER:CB	2:W:385:THR:HG22	2.42	0.45
2:U:215:LYS:CE	2:U:329:ASN:HD21	2.25	0.45
2:V:73:GLN:HB3	2:V:500:LEU:HD12	1.99	0.45
2:U:62:ALA:HB1	2:U:466:ARG:NE	2.31	0.45
2:V:458:TYR:CE2	2:V:460:LYS:HA	2.51	0.45
1:C:6:TYR:CD2	1:C:208:LEU:HG	2.52	0.45
2:V:130:LYS:O	2:V:132:THR:HG23	2.16	0.45
1:F:56:TRP:HB3	1:F:71:ILE:HD13	1.98	0.45
2:U:626:THR:HB	2:U:641:ASN:ND2	2.32	0.45
2:Y:290:VAL:HG11	2:Y:322:TYR:CD1	2.51	0.45
2:U:514:ARG:CA	2:U:517:LEU:HG	2.46	0.45
2:U:536:TYR:HD2	2:U:538:ASP:H	1.64	0.45
2:U:561:LYS:CB	2:U:640:LEU:HD21	2.47	0.45
2:Z:517:LEU:HD13	2:Z:524:PRO:CG	2.46	0.45
2:X:456:TYR:CE2	2:X:503:ILE:HD11	2.52	0.45
2:X:544:VAL:CG1	2:X:545:PRO:HD2	2.46	0.45
2:V:27:ALA:HB3	2:V:78:LEU:HD12	1.99	0.45
2:Y:350:VAL:HG13	2:Y:354:ASP:HB2	1.97	0.45
2:Y:419:VAL:HA	2:Y:422:ALA:CB	2.46	0.45
1:E:125:ARG:NH2	1:E:184:ARG:HG2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:283:VAL:CG2	2:U:323:ILE:HD13	2.47	0.45
1:D:114:ILE:HG12	1:D:115:LYS:N	2.31	0.45
2:Z:453:ASN:ND2	2:Z:453:ASN:N	2.62	0.45
1:A:114:ILE:HG12	1:A:115:LYS:H	1.82	0.45
2:V:35:TRP:HB3	2:V:54:PHE:HA	1.99	0.45
1:D:106:VAL:HG12	1:D:107:SER:H	1.80	0.45
2:U:151:ILE:HG13	2:U:152:ALA:N	2.30	0.45
2:W:307:SER:O	2:W:309:ILE:HG23	2.16	0.45
2:Y:56:GLN:HA	2:Y:57:PRO:HD3	1.80	0.45
2:Z:293:VAL:HG22	2:Z:294:VAL:N	2.30	0.45
2:W:456:TYR:CE2	2:W:503:ILE:HD11	2.52	0.45
2:V:50:LEU:HD12	2:V:51:VAL:N	2.31	0.45
2:X:171:ILE:CG2	2:X:172:SER:H	2.25	0.45
2:X:382:SER:CB	2:X:385:THR:HG22	2.42	0.45
2:V:71:PHE:C	2:V:73:GLN:H	2.19	0.45
1:B:124:THR:CG2	1:B:130:MET:HG2	2.46	0.45
2:X:511:GLN:CA	2:X:511:GLN:HE21	2.30	0.45
1:E:6:TYR:CD2	1:E:208:LEU:HG	2.51	0.45
2:W:151:ILE:HG13	2:W:152:ALA:N	2.30	0.45
2:X:151:ILE:HG13	2:X:152:ALA:N	2.30	0.45
2:V:626:THR:O	2:V:626:THR:HG23	2.17	0.45
2:U:456:TYR:CE2	2:U:503:ILE:HD11	2.52	0.45
2:U:544:VAL:CG1	2:U:545:PRO:N	2.78	0.45
2:V:544:VAL:HG13	2:V:545:PRO:HD2	1.98	0.45
2:Y:536:TYR:HD2	2:Y:538:ASP:H	1.63	0.45
2:W:586:THR:HG23	2:W:587:GLU:N	2.31	0.45
2:U:583:SER:HA	2:U:586:THR:HG22	1.99	0.45
2:Z:624:VAL:HG11	2:Z:643:VAL:HG12	1.99	0.45
2:Y:626:THR:HB	2:Y:641:ASN:ND2	2.32	0.45
2:Z:626:THR:HB	2:Z:641:ASN:ND2	2.32	0.45
2:X:208:VAL:HG23	2:X:209:ASP:N	2.31	0.45
2:Y:35:TRP:HB3	2:Y:54:PHE:HA	1.98	0.45
2:Z:561:LYS:CB	2:Z:640:LEU:HD21	2.47	0.45
2:Y:456:TYR:CE2	2:Y:503:ILE:HD11	2.52	0.45
2:W:514:ARG:CA	2:W:517:LEU:HG	2.45	0.45
2:V:496:ARG:O	2:V:496:ARG:CG	2.60	0.45
2:X:612:ASN:HD21	2:X:614:THR:HG22	1.80	0.45
2:X:173:SER:HA	2:X:174:SER:HB3	1.98	0.45
2:Y:71:PHE:C	2:Y:73:GLN:H	2.19	0.45
2:W:73:GLN:HB3	2:W:500:LEU:HD12	1.98	0.45
2:Y:624:VAL:HG11	2:Y:643:VAL:HG12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:624:VAL:HG12	2:Y:643:VAL:CB	2.46	0.45
2:Y:153:LYS:O	2:Y:157:VAL:HG22	2.17	0.45
2:Z:163:LEU:HB3	2:Z:164:GLY:H	1.62	0.45
2:X:211:GLN:OE1	2:X:328:GLN:HG2	2.16	0.45
2:V:390:GLN:HE22	2:V:408:SER:H	1.65	0.45
2:Z:450:ILE:CG1	2:Z:451:ASP:N	2.53	0.45
2:Y:561:LYS:CB	2:Y:640:LEU:HD21	2.46	0.45
1:F:130:MET:HE2	1:F:188:TRP:CD2	2.51	0.45
2:V:304:ILE:HG13	2:V:305:TYR:HE2	1.81	0.45
2:X:624:VAL:HG12	2:X:643:VAL:CB	2.46	0.45
2:V:624:VAL:HG11	2:V:643:VAL:HG12	1.99	0.45
2:V:626:THR:HB	2:V:641:ASN:ND2	2.32	0.45
2:X:626:THR:HB	2:X:641:ASN:ND2	2.31	0.45
2:X:307:SER:O	2:X:309:ILE:HG23	2.16	0.45
2:Y:211:GLN:OE1	2:Y:328:GLN:HG2	2.16	0.45
2:Y:307:SER:O	2:Y:309:ILE:HG23	2.16	0.45
2:X:171:ILE:CG2	2:X:172:SER:N	2.79	0.45
2:U:73:GLN:HB3	2:U:500:LEU:HD12	1.99	0.45
2:V:283:VAL:CG2	2:V:323:ILE:HD13	2.47	0.45
2:Z:283:VAL:CG2	2:Z:323:ILE:HD13	2.47	0.45
2:W:283:VAL:CG2	2:W:323:ILE:HD13	2.47	0.45
2:V:511:GLN:HE21	2:V:511:GLN:CA	2.29	0.45
2:Z:153:LYS:O	2:Z:157:VAL:HG22	2.17	0.45
2:Z:62:ALA:HB1	2:Z:466:ARG:NE	2.31	0.45
1:B:223:LEU:HD12	1:B:224:PRO:HD2	1.98	0.45
1:A:30:LEU:HB2	1:A:33:GLY:O	2.17	0.45
2:V:456:TYR:CE2	2:V:503:ILE:HD11	2.52	0.45
2:Y:544:VAL:HG13	2:Y:545:PRO:HD2	1.99	0.45
2:X:538:ASP:HB2	2:X:539:LYS:H	1.43	0.45
2:W:517:LEU:HD13	2:W:524:PRO:CG	2.46	0.45
2:Z:385:THR:HA	2:Z:388:THR:HG23	1.98	0.45
2:Y:385:THR:HA	2:Y:388:THR:HG23	1.98	0.45
2:W:624:VAL:HG12	2:W:643:VAL:CB	2.46	0.45
2:U:624:VAL:HG11	2:U:643:VAL:HG12	1.99	0.45
2:W:153:LYS:O	2:W:157:VAL:HG22	2.16	0.45
1:F:123:PHE:CE1	1:F:187:GLU:HG3	2.52	0.45
2:V:523:ASN:HD21	2:V:538:ASP:HA	1.82	0.44
2:Z:536:TYR:HD2	2:Z:538:ASP:H	1.63	0.44
2:Z:544:VAL:CG1	2:Z:545:PRO:HD2	2.47	0.44
2:X:446:THR:C	2:X:539:LYS:HE3	2.21	0.44
2:W:627:PHE:HZ	2:W:640:LEU:CD2	2.29	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:50:LEU:HD12	2:Z:51:VAL:N	2.32	0.44
2:Y:44:VAL:HG11	2:Y:50:LEU:HB3	1.99	0.44
2:Z:596:LYS:HD3	2:Z:596:LYS:C	2.37	0.44
2:Y:173:SER:HA	2:Y:174:SER:HB3	1.98	0.44
2:X:596:LYS:HD3	2:X:596:LYS:C	2.37	0.44
2:Z:71:PHE:C	2:Z:73:GLN:H	2.19	0.44
2:Z:624:VAL:HG12	2:Z:643:VAL:CB	2.47	0.44
2:V:153:LYS:O	2:V:157:VAL:HG22	2.17	0.44
2:U:626:THR:HG23	2:U:626:THR:O	2.17	0.44
2:W:626:THR:HG23	2:W:626:THR:O	2.17	0.44
2:W:626:THR:HB	2:W:641:ASN:ND2	2.32	0.44
2:U:454:TYR:O	2:U:467:TRP:CZ3	2.71	0.44
2:Y:454:TYR:O	2:Y:467:TRP:CZ3	2.71	0.44
2:X:544:VAL:HG13	2:X:545:PRO:HD2	1.99	0.44
2:W:544:VAL:CG1	2:W:545:PRO:N	2.78	0.44
2:W:50:LEU:HD12	2:W:51:VAL:N	2.32	0.44
2:Y:614:THR:HB	2:Y:620:ARG:CA	2.40	0.44
2:U:601:ILE:HG22	2:U:602:TYR:N	2.31	0.44
2:W:596:LYS:HD3	2:W:596:LYS:C	2.37	0.44
2:Y:596:LYS:HD3	2:Y:596:LYS:C	2.38	0.44
2:W:385:THR:HA	2:W:388:THR:HG23	1.98	0.44
2:Y:73:GLN:HB3	2:Y:500:LEU:HD12	1.99	0.44
2:U:160:TYR:HA	2:U:161:PRO:HA	1.83	0.44
2:U:419:VAL:HA	2:U:422:ALA:CB	2.47	0.44
2:W:458:TYR:CE2	2:W:460:LYS:HA	2.51	0.44
2:V:211:GLN:OE1	2:V:328:GLN:HG2	2.16	0.44
2:V:307:SER:O	2:V:309:ILE:HG23	2.16	0.44
2:U:364:ASP:N	2:U:364:ASP:OD1	2.50	0.44
2:Z:518:TYR:HE2	2:Z:536:TYR:HB2	1.70	0.44
2:U:496:ARG:O	2:U:496:ARG:CG	2.61	0.44
2:U:596:LYS:HD3	2:U:596:LYS:C	2.37	0.44
2:X:283:VAL:CG2	2:X:323:ILE:HD13	2.47	0.44
1:C:29:GLN:OE1	1:D:3:GLY:N	2.51	0.44
2:Y:130:LYS:O	2:Y:132:THR:HG23	2.16	0.44
2:U:499:ILE:HD13	2:U:499:ILE:N	2.28	0.44
2:U:502:VAL:CG1	2:U:504:LYS:H	2.31	0.44
2:U:517:LEU:C	2:U:522:ILE:HG22	2.37	0.44
2:V:517:LEU:C	2:V:522:ILE:HG22	2.38	0.44
2:Z:390:GLN:HE22	2:Z:408:SER:H	1.65	0.44
2:Z:456:TYR:CE2	2:Z:503:ILE:HD11	2.52	0.44
2:X:390:GLN:HE22	2:X:408:SER:H	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:517:LEU:HD13	2:X:524:PRO:CG	2.46	0.44
2:W:517:LEU:C	2:W:522:ILE:HG22	2.38	0.44
2:W:526:THR:HG21	2:W:535:LEU:HD11	1.97	0.44
2:Y:627:PHE:HZ	2:Y:640:LEU:CD2	2.29	0.44
2:Y:601:ILE:HG22	2:Y:602:TYR:N	2.31	0.44
2:U:71:PHE:C	2:U:73:GLN:H	2.19	0.44
2:U:511:GLN:CA	2:U:511:GLN:HE21	2.30	0.44
1:C:106:VAL:HG12	1:C:107:SER:H	1.82	0.44
2:W:211:GLN:OE1	2:W:328:GLN:HG2	2.17	0.44
2:Z:375:ALA:HB3	2:Z:406:LEU:O	2.18	0.44
2:Z:409:PRO:C	2:Z:454:TYR:CE1	2.71	0.44
2:Y:517:LEU:HD13	2:Y:524:PRO:CG	2.46	0.44
2:W:454:TYR:O	2:W:467:TRP:CZ3	2.70	0.44
2:X:624:VAL:HG11	2:X:643:VAL:HG12	1.98	0.44
2:Y:283:VAL:CG2	2:Y:323:ILE:HD13	2.47	0.44
2:Z:511:GLN:CA	2:Z:511:GLN:HE21	2.30	0.44
2:X:153:LYS:O	2:X:157:VAL:HG22	2.17	0.44
2:U:153:LYS:O	2:U:157:VAL:HG22	2.17	0.44
2:U:390:GLN:HE22	2:U:408:SER:H	1.65	0.44
2:X:379:ALA:HB2	2:X:454:TYR:CE2	2.46	0.44
2:W:517:LEU:HB2	2:W:522:ILE:HG23	1.95	0.44
2:W:536:TYR:HD2	2:W:538:ASP:H	1.63	0.44
2:V:385:THR:HA	2:V:388:THR:HG23	1.99	0.44
2:X:586:THR:HG23	2:X:587:GLU:N	2.32	0.44
2:Z:586:THR:HG23	2:Z:587:GLU:N	2.32	0.44
2:Y:222:VAL:HG11	2:Y:236:ILE:HG12	2.00	0.44
2:V:460:LYS:HB3	2:V:460:LYS:HE3	1.82	0.44
1:B:223:LEU:HA	1:B:224:PRO:HD3	1.84	0.44
2:Z:130:LYS:O	2:Z:132:THR:HG23	2.16	0.44
1:C:152:GLN:HA	1:C:158:PRO:HA	1.98	0.44
2:Y:375:ALA:HB3	2:Y:406:LEU:O	2.17	0.44
2:X:627:PHE:CZ	2:X:640:LEU:CB	2.95	0.44
2:Y:557:PHE:CZ	2:Y:638:ILE:CG2	2.95	0.44
2:V:178:LEU:HD23	2:V:178:LEU:N	2.22	0.44
2:X:419:VAL:HA	2:X:422:ALA:CB	2.46	0.44
2:Z:222:VAL:HG11	2:Z:236:ILE:HG12	2.00	0.44
2:V:222:VAL:HG11	2:V:236:ILE:HG12	2.00	0.44
2:W:222:VAL:HG11	2:W:236:ILE:HG12	2.00	0.44
2:V:62:ALA:HB1	2:V:466:ARG:HE	1.83	0.44
2:Y:147:THR:O	2:Y:151:ILE:HG23	2.18	0.44
2:V:147:THR:O	2:V:151:ILE:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:26:ILE:HG13	1:A:37:ILE:HG12	2.00	0.44
2:U:407:CYS:O	2:U:451:ASP:HB3	2.14	0.44
2:V:407:CYS:O	2:V:451:ASP:HB3	2.14	0.44
2:V:454:TYR:O	2:V:467:TRP:CZ3	2.71	0.44
2:V:526:THR:CG2	2:V:535:LEU:CD1	2.94	0.44
2:V:561:LYS:CB	2:V:640:LEU:HD21	2.47	0.44
2:Z:499:ILE:N	2:Z:499:ILE:HD13	2.28	0.44
2:Z:544:VAL:HG13	2:Z:545:PRO:HD2	1.99	0.44
2:X:453:ASN:HD22	2:X:453:ASN:N	2.15	0.44
2:W:377:SER:HA	2:W:469:PRO:HG3	2.00	0.44
2:V:44:VAL:HG11	2:V:50:LEU:HB3	1.99	0.44
2:V:601:ILE:HG22	2:V:602:TYR:N	2.32	0.44
1:A:108:GLN:HB3	1:A:199:TYR:HB2	2.00	0.44
1:C:27:LYS:HB2	1:C:36:PHE:HE2	1.82	0.44
2:U:147:THR:O	2:U:151:ILE:HG23	2.18	0.44
2:U:130:LYS:O	2:U:132:THR:HG23	2.16	0.44
2:X:364:ASP:N	2:X:364:ASP:OD1	2.51	0.44
1:D:67:LYS:O	1:D:67:LYS:HG2	2.17	0.44
2:Z:544:VAL:CG1	2:Z:545:PRO:N	2.78	0.44
2:Y:514:ARG:HA	2:Y:517:LEU:CG	2.48	0.44
2:Y:544:VAL:CG1	2:Y:545:PRO:HD2	2.47	0.44
2:W:409:PRO:C	2:W:454:TYR:CE1	2.71	0.44
2:U:385:THR:HA	2:U:388:THR:HG23	1.99	0.44
2:U:586:THR:HG23	2:U:587:GLU:N	2.32	0.44
2:X:581:ARG:HA	2:X:623:PHE:CE2	2.53	0.44
2:V:100:GLU:HB2	2:V:185:GLY:CA	2.48	0.44
2:X:222:VAL:HG11	2:X:236:ILE:HG12	2.00	0.44
2:U:254:ILE:HB	2:U:258:GLY:O	2.18	0.44
2:Z:147:THR:O	2:Z:151:ILE:HG23	2.17	0.44
2:V:253:PRO:HD2	2:V:336:GLY:HA2	2.00	0.44
2:V:502:VAL:CG1	2:V:504:LYS:H	2.31	0.43
2:Z:454:TYR:O	2:Z:467:TRP:CZ3	2.71	0.43
2:X:375:ALA:HB3	2:X:406:LEU:O	2.18	0.43
2:U:44:VAL:HG11	2:U:50:LEU:HB3	1.99	0.43
2:X:44:VAL:HG11	2:X:50:LEU:HB3	1.99	0.43
2:X:50:LEU:HD12	2:X:51:VAL:N	2.32	0.43
2:Y:100:GLU:HB2	2:Y:185:GLY:CA	2.48	0.43
1:B:66:ALA:C	1:B:68:VAL:H	2.20	0.43
2:X:253:PRO:HD2	2:X:336:GLY:HA2	2.00	0.43
2:W:253:PRO:HD2	2:W:336:GLY:HA2	2.00	0.43
2:U:253:PRO:HD2	2:U:336:GLY:HA2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:375:ALA:HB3	2:V:406:LEU:O	2.18	0.43
2:V:514:ARG:NH2	2:V:535:LEU:HD22	2.33	0.43
2:Z:502:VAL:CG1	2:Z:504:LYS:H	2.31	0.43
2:Y:502:VAL:CG1	2:Y:504:LYS:H	2.31	0.43
2:W:215:LYS:HE3	2:W:329:ASN:OD1	2.19	0.43
1:B:130:MET:HE2	1:B:188:TRP:CD2	2.53	0.43
2:X:90:LYS:N	2:X:344:LEU:O	2.48	0.43
2:X:254:ILE:HB	2:X:258:GLY:O	2.18	0.43
2:Y:460:LYS:HB3	2:Y:460:LYS:HE3	1.82	0.43
2:V:56:GLN:HA	2:V:57:PRO:HD3	1.80	0.43
2:X:295:LEU:HD11	2:X:314:PHE:CD2	2.53	0.43
1:B:56:TRP:HB3	1:B:71:ILE:HD13	2.00	0.43
2:U:375:ALA:HB3	2:U:406:LEU:O	2.17	0.43
2:Y:171:ILE:CG2	2:Y:172:SER:N	2.79	0.43
2:W:581:ARG:HA	2:W:623:PHE:CE2	2.53	0.43
2:V:90:LYS:N	2:V:344:LEU:O	2.48	0.43
2:Y:254:ILE:HB	2:Y:258:GLY:O	2.19	0.43
2:W:147:THR:O	2:W:151:ILE:HG23	2.17	0.43
2:Z:240:SER:HB3	2:Z:279:TYR:CE1	2.53	0.43
2:Z:379:ALA:HB2	2:Z:454:TYR:CE2	2.46	0.43
2:Y:377:SER:HA	2:Y:469:PRO:HG3	2.01	0.43
2:X:407:CYS:O	2:X:451:ASP:HB3	2.14	0.43
2:W:496:ARG:CG	2:W:496:ARG:O	2.59	0.43
2:W:502:VAL:CG1	2:W:504:LYS:H	2.31	0.43
2:Z:44:VAL:HG11	2:Z:50:LEU:HB3	2.00	0.43
2:Y:581:ARG:HA	2:Y:623:PHE:CE2	2.54	0.43
2:U:215:LYS:HE3	2:U:329:ASN:OD1	2.18	0.43
2:W:624:VAL:HG11	2:W:643:VAL:HG12	1.99	0.43
2:Z:254:ILE:HB	2:Z:258:GLY:O	2.19	0.43
2:X:147:THR:O	2:X:151:ILE:HG23	2.18	0.43
1:C:212:THR:HA	1:C:222:ASP:HA	2.00	0.43
1:A:110:ASN:HA	1:A:111:PRO:HD3	1.71	0.43
2:Z:377:SER:HA	2:Z:469:PRO:HG3	2.00	0.43
2:Z:521:ALA:HB3	2:Z:540:THR:HA	2.00	0.43
2:Y:517:LEU:C	2:Y:522:ILE:HG22	2.38	0.43
2:Y:50:LEU:HD12	2:Y:51:VAL:N	2.32	0.43
2:W:44:VAL:HG11	2:W:50:LEU:HB3	1.99	0.43
2:X:89:ALA:HB3	2:X:194:LEU:CD1	2.49	0.43
2:V:586:THR:HG23	2:V:587:GLU:N	2.32	0.43
1:F:124:THR:HG23	1:F:126:TYR:N	2.33	0.43
2:Z:581:ARG:HA	2:Z:623:PHE:CE2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:109:TYR:OH	1:F:202:VAL:HG21	2.19	0.43
2:U:62:ALA:HB1	2:U:466:ARG:HE	1.84	0.43
2:Z:626:THR:O	2:Z:626:THR:HG23	2.17	0.43
1:A:168:MET:HB2	1:A:191:THR:HG22	2.01	0.43
1:E:212:THR:HA	1:E:222:ASP:HA	2.00	0.43
2:Z:34:GLN:OE1	2:Z:230:LEU:HD11	2.19	0.43
2:Y:295:LEU:HD11	2:Y:314:PHE:CD2	2.54	0.43
1:F:149:MET:HG3	1:F:212:THR:O	2.18	0.43
2:W:364:ASP:OD1	2:W:364:ASP:N	2.51	0.43
2:Y:364:ASP:OD1	2:Y:364:ASP:N	2.51	0.43
2:Z:379:ALA:HB1	2:Z:454:TYR:OH	1.73	0.43
2:Y:502:VAL:CG1	2:Y:503:ILE:N	2.82	0.43
2:X:517:LEU:C	2:X:522:ILE:HG22	2.38	0.43
2:W:562:THR:CG2	2:W:563:ASN:N	2.82	0.43
2:X:602:TYR:CD2	2:X:603:GLU:N	2.87	0.43
2:X:385:THR:HA	2:X:388:THR:HG23	1.98	0.43
2:X:73:GLN:HB3	2:X:500:LEU:HD12	1.99	0.43
2:U:100:GLU:HB2	2:U:185:GLY:CA	2.48	0.43
2:U:222:VAL:HG11	2:U:236:ILE:HG12	2.00	0.43
2:X:626:THR:O	2:X:626:THR:HG23	2.17	0.43
1:E:127:GLU:HG2	1:E:131:PHE:CZ	2.54	0.43
1:D:30:LEU:HB2	1:D:33:GLY:O	2.18	0.43
2:X:454:TYR:O	2:X:467:TRP:CZ3	2.71	0.43
2:V:171:ILE:CG2	2:V:172:SER:N	2.79	0.43
2:U:581:ARG:HA	2:U:623:PHE:CE2	2.54	0.43
2:W:100:GLU:HB2	2:W:185:GLY:CA	2.48	0.43
2:X:97:GLY:O	2:X:98:ASN:O	2.37	0.43
1:F:115:LYS:HE3	1:F:115:LYS:HB2	1.77	0.43
2:V:295:LEU:HD11	2:V:314:PHE:CD2	2.54	0.43
2:W:312:ASP:O	2:W:316:ALA:HB2	2.19	0.43
2:U:502:VAL:CG1	2:U:503:ILE:N	2.82	0.43
2:V:377:SER:HA	2:V:469:PRO:HG3	2.00	0.43
2:Z:502:VAL:CG1	2:Z:503:ILE:N	2.82	0.43
2:Y:390:GLN:HE22	2:Y:408:SER:H	1.65	0.43
2:X:562:THR:CG2	2:X:563:ASN:N	2.82	0.43
2:W:544:VAL:HG13	2:W:545:PRO:HD2	1.99	0.43
2:Y:228:GLY:HA2	2:Y:345:SER:CB	2.32	0.43
2:U:178:LEU:HD23	2:U:178:LEU:N	2.22	0.43
2:V:215:LYS:HE3	2:V:329:ASN:OD1	2.19	0.43
2:X:71:PHE:C	2:X:73:GLN:N	2.69	0.43
2:U:67:SER:OG	2:U:472:ALA:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:124:THR:HG23	1:B:126:TYR:H	1.84	0.43
2:Z:423:VAL:HG21	2:Z:513:GLN:NE2	2.34	0.43
2:Y:423:VAL:HG21	2:Y:513:GLN:NE2	2.34	0.43
2:Y:511:GLN:HE21	2:Y:511:GLN:CA	2.29	0.43
1:D:66:ALA:C	1:D:68:VAL:H	2.22	0.43
2:W:588:THR:CG2	2:W:589:ALA:N	2.82	0.43
2:Y:34:GLN:OE1	2:Y:230:LEU:HD11	2.19	0.43
2:W:34:GLN:OE1	2:W:230:LEU:HD11	2.19	0.43
2:Y:240:SER:HB3	2:Y:279:TYR:CE1	2.53	0.43
1:C:110:ASN:HA	1:C:111:PRO:HD3	1.71	0.43
2:W:295:LEU:HD11	2:W:314:PHE:CD2	2.54	0.43
2:V:240:SER:HB3	2:V:279:TYR:CE1	2.53	0.43
2:X:502:VAL:CG1	2:X:504:LYS:H	2.31	0.43
2:W:375:ALA:HB3	2:W:406:LEU:O	2.18	0.43
2:W:514:ARG:HA	2:W:517:LEU:CG	2.49	0.43
2:W:89:ALA:HB3	2:W:194:LEU:CD1	2.49	0.43
2:Y:590:GLN:HE21	2:Y:590:GLN:HB3	1.65	0.43
2:V:581:ARG:HA	2:V:623:PHE:CE2	2.54	0.43
1:B:108:GLN:CB	1:B:199:TYR:HB2	2.49	0.43
2:U:100:GLU:HG3	2:U:186:LYS:N	2.32	0.43
1:B:114:ILE:HG12	1:B:115:LYS:N	2.33	0.43
2:V:478:CYS:C	2:V:480:ARG:N	2.73	0.43
2:U:74:TYR:OH	2:U:473:ASP:OD2	2.35	0.43
2:X:312:ASP:O	2:X:316:ALA:HB2	2.19	0.43
2:Z:517:LEU:C	2:Z:522:ILE:HG22	2.38	0.43
2:X:377:SER:HA	2:X:469:PRO:HG3	2.01	0.43
2:Z:496:ARG:O	2:Z:496:ARG:CG	2.59	0.43
2:X:228:GLY:HA2	2:X:345:SER:CB	2.32	0.43
2:X:614:THR:HB	2:X:620:ARG:CA	2.40	0.43
2:W:24:THR:O	2:W:26:THR:N	2.52	0.43
2:Z:89:ALA:HB3	2:Z:194:LEU:CD1	2.49	0.43
2:X:215:LYS:HE3	2:X:329:ASN:OD1	2.19	0.43
2:W:97:GLY:O	2:W:98:ASN:O	2.37	0.43
2:Y:62:ALA:HB1	2:Y:466:ARG:HE	1.84	0.43
2:Y:626:THR:O	2:Y:626:THR:HG23	2.17	0.43
1:C:56:TRP:HB3	1:C:71:ILE:HD13	2.01	0.43
2:X:163:LEU:HB3	2:X:164:GLY:H	1.63	0.43
2:U:295:LEU:HD11	2:U:314:PHE:CD2	2.54	0.43
2:X:240:SER:HB3	2:X:279:TYR:CE1	2.53	0.43
2:V:48:VAL:O	2:V:48:VAL:HG12	2.19	0.43
2:X:48:VAL:HG12	2:X:48:VAL:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:48:VAL:O	2:Z:48:VAL:HG12	2.19	0.43
2:U:544:VAL:HG13	2:U:545:PRO:HD2	1.99	0.42
2:V:514:ARG:HA	2:V:517:LEU:CG	2.48	0.42
2:Y:544:VAL:CG1	2:Y:545:PRO:N	2.79	0.42
2:X:502:VAL:CG1	2:X:503:ILE:N	2.82	0.42
2:X:577:ASN:N	2:X:580:THR:CG2	2.82	0.42
2:W:602:TYR:CD2	2:W:603:GLU:N	2.87	0.42
2:U:77:ASP:OD1	2:U:77:ASP:O	2.37	0.42
2:U:304:ILE:HG13	2:U:305:TYR:HE2	1.82	0.42
2:W:67:SER:OG	2:W:472:ALA:HB2	2.19	0.42
2:Z:419:VAL:HA	2:Z:422:ALA:CB	2.47	0.42
2:V:588:THR:CG2	2:V:589:ALA:N	2.82	0.42
2:Z:62:ALA:HB1	2:Z:466:ARG:HE	1.84	0.42
1:C:123:PHE:CE1	1:C:187:GLU:HG3	2.54	0.42
2:Z:253:PRO:HD2	2:Z:336:GLY:HA2	2.00	0.42
2:U:34:GLN:OE1	2:U:230:LEU:HD11	2.19	0.42
2:W:240:SER:HB3	2:W:279:TYR:CE1	2.53	0.42
2:U:56:GLN:HA	2:U:57:PRO:HD3	1.80	0.42
2:Y:514:ARG:HE	2:Y:518:TYR:HE1	1.66	0.42
2:Y:526:THR:CG2	2:Y:535:LEU:CD2	2.95	0.42
2:W:521:ALA:HB1	2:W:540:THR:CA	2.45	0.42
2:W:570:TYR:CD2	2:W:584:PHE:CE2	2.95	0.42
2:V:371:GLN:O	2:V:403:CYS:HA	2.19	0.42
2:V:171:ILE:CG2	2:V:172:SER:H	2.25	0.42
2:Y:89:ALA:HB3	2:Y:194:LEU:CD1	2.50	0.42
2:Y:586:THR:HG23	2:Y:587:GLU:N	2.32	0.42
2:Y:215:LYS:HE3	2:Y:329:ASN:OD1	2.19	0.42
2:Z:100:GLU:HB2	2:Z:185:GLY:CA	2.48	0.42
2:Z:67:SER:OG	2:Z:472:ALA:HB2	2.19	0.42
2:X:67:SER:OG	2:X:472:ALA:HB2	2.19	0.42
1:C:66:ALA:C	1:C:68:VAL:H	2.23	0.42
2:X:588:THR:CG2	2:X:589:ALA:N	2.82	0.42
2:Y:253:PRO:HD2	2:Y:336:GLY:HA2	2.00	0.42
2:W:460:LYS:HB3	2:W:460:LYS:HE3	1.82	0.42
2:W:56:GLN:HA	2:W:57:PRO:HD3	1.80	0.42
2:X:197:GLU:H	2:X:197:GLU:CD	2.23	0.42
2:Z:364:ASP:N	2:Z:364:ASP:OD1	2.50	0.42
2:V:499:ILE:N	2:V:499:ILE:HD13	2.28	0.42
2:V:514:ARG:HA	2:V:517:LEU:CD2	2.49	0.42
2:V:556:LEU:HD13	2:V:631:PRO:HA	2.01	0.42
2:V:576:ASN:CA	2:V:580:THR:HG21	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:W:577:ASN:N	2:W:580:THR:CG2	2.82	0.42
2:Y:77:ASP:O	2:Y:77:ASP:OD1	2.38	0.42
2:Z:215:LYS:HE3	2:Z:329:ASN:OD1	2.19	0.42
2:X:100:GLU:HB2	2:X:185:GLY:CA	2.49	0.42
2:W:643:VAL:O	2:W:643:VAL:HG23	2.19	0.42
2:U:624:VAL:CB	2:U:643:VAL:HG12	2.49	0.42
2:Y:643:VAL:O	2:Y:643:VAL:HG23	2.19	0.42
1:D:19:ASP:OD2	1:D:213:TYR:OH	2.31	0.42
2:U:312:ASP:O	2:U:316:ALA:HB2	2.20	0.42
2:Y:197:GLU:H	2:Y:197:GLU:CD	2.23	0.42
2:Z:517:LEU:HB2	2:Z:522:ILE:HG23	1.95	0.42
2:X:23:SER:HB2	2:X:559:MET:SD	2.59	0.42
2:X:557:PHE:CE2	2:X:631:PRO:CG	3.03	0.42
2:Y:577:ASN:N	2:Y:580:THR:CG2	2.82	0.42
2:Z:621:ASN:HA	2:Z:621:ASN:HD22	1.62	0.42
2:V:24:THR:O	2:V:26:THR:N	2.52	0.42
2:V:77:ASP:O	2:V:77:ASP:OD1	2.38	0.42
2:V:97:GLY:O	2:V:98:ASN:O	2.37	0.42
1:F:110:ASN:HA	1:F:111:PRO:HD3	1.69	0.42
1:E:28:ARG:HD3	1:E:28:ARG:HA	1.88	0.42
2:U:377:SER:HA	2:U:469:PRO:HG3	2.01	0.42
2:U:514:ARG:NH2	2:U:535:LEU:HD22	2.33	0.42
2:W:521:ALA:HB3	2:W:540:THR:HA	2.00	0.42
2:W:77:ASP:OD1	2:W:77:ASP:O	2.38	0.42
2:Y:100:GLU:HG3	2:Y:186:LYS:N	2.32	0.42
2:Y:97:GLY:O	2:Y:98:ASN:O	2.37	0.42
2:Z:624:VAL:CB	2:Z:643:VAL:HG12	2.50	0.42
2:V:254:ILE:HB	2:V:258:GLY:O	2.19	0.42
2:W:62:ALA:HB1	2:W:466:ARG:HE	1.83	0.42
2:Y:478:CYS:C	2:Y:480:ARG:N	2.72	0.42
2:W:370:VAL:HG23	2:W:370:VAL:O	2.20	0.42
2:W:197:GLU:H	2:W:197:GLU:CD	2.23	0.42
2:V:502:VAL:CG1	2:V:503:ILE:N	2.82	0.42
2:Z:514:ARG:HA	2:Z:517:LEU:CG	2.49	0.42
2:X:514:ARG:HA	2:X:517:LEU:CG	2.49	0.42
2:W:514:ARG:HA	2:W:517:LEU:CD2	2.50	0.42
2:Y:618:ILE:CG2	2:Y:619:ASP:N	2.83	0.42
2:X:77:ASP:O	2:X:77:ASP:OD1	2.38	0.42
2:Z:77:ASP:O	2:Z:77:ASP:OD1	2.38	0.42
2:Z:602:TYR:CD2	2:Z:603:GLU:N	2.87	0.42
2:V:89:ALA:HB3	2:V:194:LEU:CD1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:68:ALA:O	2:Y:69:MET:C	2.58	0.42
1:B:12:ARG:NH2	1:B:199:TYR:OH	2.52	0.42
1:A:108:GLN:CB	1:A:199:TYR:HB2	2.50	0.42
2:U:423:VAL:HG21	2:U:513:GLN:NE2	2.34	0.42
2:U:643:VAL:HG23	2:U:643:VAL:O	2.18	0.42
2:W:254:ILE:HB	2:W:258:GLY:O	2.19	0.42
2:U:588:THR:CG2	2:U:589:ALA:N	2.82	0.42
1:C:38:ARG:O	1:C:40:PRO:HD3	2.20	0.42
2:V:312:ASP:O	2:V:316:ALA:HB2	2.20	0.42
2:U:240:SER:HB3	2:U:279:TYR:CE1	2.54	0.42
2:U:478:CYS:C	2:U:480:ARG:N	2.72	0.42
1:F:7:ASN:HB3	1:F:209:ILE:HD12	2.01	0.42
2:Z:295:LEU:HD11	2:Z:314:PHE:CD2	2.54	0.42
2:V:370:VAL:HG23	2:V:370:VAL:O	2.20	0.42
2:W:48:VAL:O	2:W:48:VAL:HG12	2.19	0.42
2:Y:48:VAL:O	2:Y:48:VAL:HG12	2.19	0.42
2:Y:557:PHE:CE2	2:Y:631:PRO:CG	3.03	0.42
2:Z:576:ASN:CA	2:Z:580:THR:HG21	2.49	0.42
2:W:576:ASN:CA	2:W:580:THR:HG21	2.49	0.42
2:V:602:TYR:CD2	2:V:603:GLU:N	2.87	0.42
2:W:371:GLN:O	2:W:403:CYS:HA	2.19	0.42
1:A:200:PRO:HA	1:A:201:PRO:HD3	1.94	0.42
2:U:97:GLY:O	2:U:98:ASN:O	2.37	0.42
2:X:643:VAL:O	2:X:643:VAL:HG23	2.19	0.42
2:Y:46:ASN:HB2	2:Y:49:ASP:CB	2.50	0.42
2:V:643:VAL:HG23	2:V:643:VAL:O	2.19	0.42
2:W:453:ASN:N	2:W:453:ASN:HD22	2.15	0.42
1:E:222:ASP:OD1	1:E:222:ASP:N	2.53	0.42
2:Z:312:ASP:O	2:Z:316:ALA:HB2	2.20	0.42
2:V:74:TYR:OH	2:V:473:ASP:OD2	2.35	0.42
2:V:562:THR:CG2	2:V:563:ASN:N	2.82	0.42
2:Z:562:THR:CG2	2:Z:563:ASN:N	2.82	0.42
2:Y:562:THR:CG2	2:Y:563:ASN:N	2.82	0.42
2:X:24:THR:O	2:X:26:THR:N	2.52	0.42
2:Y:602:TYR:CD2	2:Y:603:GLU:N	2.88	0.42
2:Z:590:GLN:HB3	2:Z:590:GLN:HE21	1.66	0.42
2:V:67:SER:OG	2:V:472:ALA:HB2	2.20	0.42
2:V:423:VAL:HG21	2:V:513:GLN:NE2	2.34	0.42
2:Z:150:ILE:H	2:Z:150:ILE:HG12	1.63	0.42
2:V:236:ILE:HD11	2:V:340:LEU:HD11	2.01	0.42
2:Z:46:ASN:HB2	2:Z:49:ASP:CB	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:74:TYR:OH	2:X:473:ASP:OD2	2.35	0.42
2:U:370:VAL:O	2:U:370:VAL:HG23	2.20	0.42
2:U:48:VAL:O	2:U:48:VAL:HG12	2.19	0.42
1:B:110:ASN:HA	1:B:111:PRO:HD3	1.70	0.42
2:V:555:ARG:O	2:V:559:MET:HG3	2.20	0.42
2:W:555:ARG:O	2:W:559:MET:HG3	2.20	0.42
2:W:50:LEU:HD11	2:W:65:PHE:CE1	2.55	0.42
2:U:602:TYR:CD2	2:U:603:GLU:N	2.87	0.42
1:B:108:GLN:HB3	1:B:199:TYR:HB2	2.02	0.42
2:V:100:GLU:HG3	2:V:186:LYS:N	2.32	0.42
2:Z:100:GLU:HG3	2:Z:186:LYS:N	2.32	0.42
2:Z:97:GLY:O	2:Z:98:ASN:O	2.37	0.42
2:W:423:VAL:HG21	2:W:513:GLN:NE2	2.35	0.42
2:X:624:VAL:CB	2:X:643:VAL:HG12	2.50	0.42
2:U:236:ILE:HD11	2:U:340:LEU:HD11	2.02	0.42
2:W:46:ASN:HB2	2:W:49:ASP:CB	2.50	0.42
2:U:555:ARG:O	2:U:559:MET:HG3	2.20	0.42
2:Z:514:ARG:HE	2:Z:518:TYR:HE1	1.66	0.42
2:Z:537:GLY:O	2:Z:538:ASP:CB	2.68	0.42
2:Z:538:ASP:HB2	2:Z:539:LYS:H	1.42	0.42
2:Z:627:PHE:CZ	2:Z:640:LEU:CB	2.95	0.42
2:X:409:PRO:HG2	2:X:454:TYR:CE1	2.55	0.42
2:X:555:ARG:O	2:X:559:MET:HG3	2.20	0.42
2:Y:556:LEU:O	2:Y:556:LEU:HD23	2.20	0.42
2:X:391:LYS:NZ	2:X:440:ASN:HD21	1.92	0.42
2:U:576:ASN:CA	2:U:580:THR:HG21	2.49	0.42
2:Y:24:THR:O	2:Y:26:THR:N	2.52	0.42
2:Z:24:THR:O	2:Z:26:THR:N	2.53	0.42
2:Z:68:ALA:O	2:Z:69:MET:C	2.58	0.42
2:U:68:ALA:O	2:U:69:MET:C	2.58	0.42
2:W:624:VAL:CB	2:W:643:VAL:HG12	2.50	0.42
2:X:423:VAL:HG21	2:X:513:GLN:NE2	2.34	0.42
1:C:200:PRO:HA	1:C:201:PRO:HD3	1.93	0.42
2:V:453:ASN:N	2:V:453:ASN:HD22	2.16	0.42
2:X:62:ALA:HB1	2:X:466:ARG:HE	1.84	0.42
2:U:252:LEU:HA	2:U:253:PRO:HD3	1.79	0.42
2:Z:119:LYS:HE3	2:Z:124:ASP:OD1	2.20	0.42
2:V:34:GLN:OE1	2:V:230:LEU:HD11	2.19	0.42
2:X:34:GLN:OE1	2:X:230:LEU:HD11	2.20	0.42
2:Y:370:VAL:HG23	2:Y:370:VAL:O	2.20	0.42
2:Z:197:GLU:CD	2:Z:197:GLU:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:562:THR:CG2	2:U:563:ASN:N	2.82	0.41
2:V:409:PRO:HG2	2:V:454:TYR:CE1	2.55	0.41
2:Y:404:LEU:HA	2:Y:554:ARG:HH22	1.85	0.41
2:X:629:ILE:CG2	2:X:630:GLN:N	2.83	0.41
2:W:404:LEU:HA	2:W:404:LEU:HD23	1.90	0.41
2:W:407:CYS:O	2:W:451:ASP:HB3	2.15	0.41
2:W:561:LYS:CB	2:W:640:LEU:HD21	2.46	0.41
2:Y:564:ILE:CD1	2:Y:642:PHE:HB2	2.47	0.41
2:Z:50:LEU:HD11	2:Z:65:PHE:CE1	2.55	0.41
1:A:109:TYR:OH	1:A:202:VAL:HG21	2.20	0.41
2:Z:577:ASN:N	2:Z:580:THR:CG2	2.82	0.41
2:U:570:TYR:CD2	2:U:584:PHE:CE2	2.95	0.41
2:U:371:GLN:O	2:U:403:CYS:HA	2.20	0.41
2:U:581:ARG:HB2	2:U:623:PHE:HZ	1.83	0.41
2:Z:588:THR:CG2	2:Z:589:ALA:N	2.82	0.41
2:Y:588:THR:CG2	2:Y:589:ALA:N	2.82	0.41
2:V:197:GLU:CD	2:V:197:GLU:H	2.23	0.41
2:U:197:GLU:H	2:U:197:GLU:CD	2.23	0.41
2:U:514:ARG:HA	2:U:517:LEU:CD2	2.50	0.41
2:U:537:GLY:O	2:U:538:ASP:CB	2.68	0.41
2:U:554:ARG:HG2	2:U:558:ASN:OD1	2.21	0.41
2:U:627:PHE:CZ	2:U:640:LEU:CB	2.95	0.41
2:V:517:LEU:HB2	2:V:522:ILE:HG23	1.95	0.41
2:X:408:SER:OG	2:X:409:PRO:HD2	2.20	0.41
2:X:514:ARG:HE	2:X:518:TYR:HE1	1.66	0.41
2:X:514:ARG:HA	2:X:517:LEU:CD2	2.50	0.41
2:X:521:ALA:HB3	2:X:540:THR:HA	2.00	0.41
2:W:409:PRO:HG2	2:W:454:TYR:CE1	2.55	0.41
2:W:391:LYS:CE	2:W:440:ASN:ND2	2.83	0.41
2:Z:618:ILE:CG2	2:Z:619:ASP:N	2.83	0.41
2:X:618:ILE:CG2	2:X:619:ASP:N	2.83	0.41
2:U:24:THR:O	2:U:26:THR:N	2.52	0.41
2:Z:236:ILE:HD11	2:Z:340:LEU:HD11	2.01	0.41
2:Z:643:VAL:O	2:Z:643:VAL:HG23	2.19	0.41
2:U:90:LYS:N	2:U:344:LEU:O	2.48	0.41
2:U:200:ASN:O	2:U:201:ALA:C	2.59	0.41
2:Z:74:TYR:OH	2:Z:473:ASP:OD2	2.35	0.41
2:U:23:SER:OG	2:U:483:ASN:CA	2.69	0.41
2:U:404:LEU:HA	2:U:554:ARG:HH22	1.86	0.41
2:V:558:ASN:O	2:V:561:LYS:HG2	2.21	0.41
2:V:627:PHE:CZ	2:V:640:LEU:CB	2.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Z:514:ARG:HA	2:Z:517:LEU:CD2	2.50	0.41
2:Y:406:LEU:HA	2:Y:449:ALA:O	2.20	0.41
2:Y:499:ILE:HD13	2:Y:499:ILE:N	2.28	0.41
2:Y:514:ARG:HA	2:Y:517:LEU:CD2	2.49	0.41
2:X:406:LEU:HA	2:X:449:ALA:O	2.21	0.41
2:W:627:PHE:CZ	2:W:640:LEU:CB	2.95	0.41
2:W:427:VAL:HG21	2:W:516:ARG:NH2	2.35	0.41
2:Y:627:PHE:CD1	2:Y:629:ILE:CG1	3.04	0.41
2:Z:371:GLN:O	2:Z:403:CYS:HA	2.19	0.41
2:U:171:ILE:CG2	2:U:172:SER:H	2.25	0.41
2:U:89:ALA:HB3	2:U:194:LEU:CD1	2.49	0.41
1:F:114:ILE:HD12	1:F:198:MET:HE3	2.01	0.41
2:X:236:ILE:HD11	2:X:340:LEU:HD11	2.02	0.41
1:C:39:VAL:HA	1:C:40:PRO:HD2	1.88	0.41
2:V:119:LYS:HE3	2:V:124:ASP:OD1	2.21	0.41
2:Z:402:ASP:CG	2:Z:402:ASP:O	2.59	0.41
1:E:107:SER:OG	1:E:107:SER:O	2.31	0.41
2:U:409:PRO:HG2	2:U:454:TYR:CE1	2.55	0.41
2:W:406:LEU:HA	2:W:449:ALA:O	2.20	0.41
2:V:427:VAL:HG21	2:V:516:ARG:NH2	2.35	0.41
2:U:427:VAL:O	2:U:431:THR:CG2	2.68	0.41
2:X:50:LEU:HD11	2:X:65:PHE:CE1	2.56	0.41
2:X:391:LYS:CE	2:X:440:ASN:ND2	2.84	0.41
2:V:618:ILE:CG2	2:V:619:ASP:N	2.83	0.41
2:Y:371:GLN:O	2:Y:403:CYS:HA	2.20	0.41
2:X:581:ARG:HB2	2:X:623:PHE:HZ	1.83	0.41
1:E:124:THR:HG23	1:E:126:TYR:N	2.35	0.41
2:X:423:VAL:O	2:X:424:ASP:C	2.59	0.41
2:Y:236:ILE:HD11	2:Y:340:LEU:HD11	2.02	0.41
2:Y:624:VAL:CB	2:Y:643:VAL:HG12	2.50	0.41
2:V:624:VAL:CB	2:V:643:VAL:HG12	2.50	0.41
2:X:46:ASN:HB2	2:X:49:ASP:CB	2.51	0.41
1:C:130:MET:HE2	1:C:188:TRP:CD2	2.55	0.41
2:X:61:THR:O	2:X:62:ALA:C	2.58	0.41
2:Y:312:ASP:O	2:Y:316:ALA:HB2	2.20	0.41
1:E:203:ASP:OD1	1:E:204:ASP:N	2.54	0.41
1:D:140:TYR:O	1:D:145:PHE:HB2	2.21	0.41
2:U:521:ALA:HB3	2:U:540:THR:HA	2.00	0.41
2:U:558:ASN:O	2:U:561:LYS:HG2	2.21	0.41
2:V:406:LEU:HA	2:V:449:ALA:O	2.20	0.41
2:Y:526:THR:CG2	2:Y:535:LEU:CD1	2.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:537:GLY:O	2:Y:538:ASP:CB	2.68	0.41
2:X:544:VAL:CG1	2:X:545:PRO:N	2.79	0.41
2:Y:555:ARG:O	2:Y:559:MET:HG3	2.20	0.41
2:W:171:ILE:CG2	2:W:172:SER:H	2.25	0.41
1:A:130:MET:HE2	1:A:188:TRP:CD2	2.56	0.41
2:U:150:ILE:H	2:U:150:ILE:HG12	1.63	0.41
2:Y:90:LYS:HA	2:Y:90:LYS:HD3	1.93	0.41
2:Y:67:SER:OG	2:Y:472:ALA:HB2	2.20	0.41
1:C:108:GLN:HB3	1:C:199:TYR:HB2	2.02	0.41
1:F:39:VAL:HA	1:F:40:PRO:HD2	1.83	0.41
2:U:163:LEU:HB3	2:U:164:GLY:H	1.63	0.41
2:Z:478:CYS:C	2:Z:480:ARG:N	2.73	0.41
2:V:629:ILE:CG2	2:V:630:GLN:N	2.83	0.41
2:Z:556:LEU:O	2:Z:556:LEU:HD23	2.20	0.41
2:X:404:LEU:HA	2:X:554:ARG:HH22	1.85	0.41
2:X:627:PHE:CE1	2:X:640:LEU:HB3	2.55	0.41
2:U:427:VAL:HG21	2:U:516:ARG:NH2	2.36	0.41
2:Y:629:ILE:CG2	2:Y:630:GLN:N	2.83	0.41
2:Y:556:LEU:HD13	2:Y:631:PRO:HA	2.01	0.41
2:V:50:LEU:HD11	2:V:65:PHE:CE1	2.56	0.41
2:V:577:ASN:N	2:V:580:THR:CG2	2.82	0.41
2:X:371:GLN:O	2:X:403:CYS:HA	2.20	0.41
2:V:583:SER:C	2:V:586:THR:HG22	2.41	0.41
1:D:108:GLN:HB3	1:D:199:TYR:HB2	2.02	0.41
2:W:624:VAL:CG1	2:W:643:VAL:HB	2.50	0.41
2:V:150:ILE:H	2:V:150:ILE:HG12	1.63	0.41
2:V:200:ASN:O	2:V:201:ALA:C	2.59	0.41
1:F:167:LEU:HD11	1:F:190:LEU:HD12	2.02	0.41
2:U:119:LYS:HE3	2:U:124:ASP:OD1	2.20	0.41
2:Y:119:LYS:HE3	2:Y:124:ASP:OD1	2.21	0.41
1:B:28:ARG:HA	1:B:28:ARG:HD3	1.95	0.41
2:Z:370:VAL:HG23	2:Z:370:VAL:O	2.20	0.41
2:U:556:LEU:O	2:U:556:LEU:HD23	2.20	0.41
2:U:627:PHE:C	2:U:627:PHE:CD1	2.94	0.41
2:U:627:PHE:CE1	2:U:640:LEU:HB3	2.55	0.41
2:V:23:SER:OG	2:V:483:ASN:CA	2.69	0.41
2:Z:555:ARG:O	2:Z:559:MET:HG3	2.20	0.41
2:Z:554:ARG:HG2	2:Z:558:ASN:OD1	2.21	0.41
2:X:526:THR:CG2	2:X:535:LEU:CD2	2.95	0.41
2:X:523:ASN:HD21	2:X:538:ASP:HA	1.83	0.41
2:X:445:SER:O	2:X:540:THR:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:564:ILE:HD11	2:X:642:PHE:CB	2.47	0.41
2:W:404:LEU:HA	2:W:554:ARG:HH22	1.86	0.41
2:W:502:VAL:CG1	2:W:503:ILE:N	2.83	0.41
2:W:556:LEU:O	2:W:556:LEU:HD23	2.21	0.41
2:W:557:PHE:CE2	2:W:631:PRO:CG	3.03	0.41
2:Z:427:VAL:HG21	2:Z:516:ARG:NH2	2.35	0.41
2:Y:50:LEU:HD11	2:Y:65:PHE:CE1	2.56	0.41
2:X:576:ASN:CA	2:X:580:THR:HG21	2.49	0.41
2:X:381:GLU:O	2:X:382:SER:C	2.59	0.41
2:X:68:ALA:O	2:X:69:MET:C	2.58	0.41
1:B:200:PRO:HA	1:B:201:PRO:HD3	1.95	0.41
2:W:160:TYR:HA	2:W:161:PRO:HA	1.82	0.41
2:Y:423:VAL:O	2:Y:424:ASP:C	2.59	0.41
2:Z:200:ASN:O	2:Z:201:ALA:C	2.59	0.41
2:W:119:LYS:HE3	2:W:124:ASP:OD1	2.21	0.41
1:E:110:ASN:HA	1:E:111:PRO:HD3	1.73	0.41
2:U:526:THR:CG2	2:U:535:LEU:CD2	2.94	0.41
2:U:629:ILE:CG2	2:U:630:GLN:N	2.83	0.41
2:V:450:ILE:HG22	2:V:540:THR:HG21	2.01	0.41
2:Y:409:PRO:HG2	2:Y:454:TYR:CE1	2.56	0.41
2:Y:539:LYS:HE2	2:Y:541:ALA:CA	2.43	0.41
2:Y:381:GLU:O	2:Y:382:SER:C	2.59	0.41
2:U:213:ASN:N	2:U:213:ASN:ND2	2.67	0.41
2:U:61:THR:O	2:U:62:ALA:C	2.59	0.41
2:V:61:THR:O	2:V:62:ALA:C	2.59	0.41
2:Z:290:VAL:HG11	2:Z:322:TYR:CE1	2.56	0.41
2:W:290:VAL:HG11	2:W:322:TYR:CE1	2.56	0.41
2:X:56:GLN:HA	2:X:57:PRO:HD3	1.80	0.41
2:X:498:GLN:HG3	2:X:533:TYR:HA	2.02	0.41
2:X:308:ASN:HD21	2:X:313:ASP:CB	2.34	0.41
2:U:514:ARG:HE	2:U:518:TYR:HE1	1.67	0.41
2:U:521:ALA:HB1	2:U:540:THR:CA	2.46	0.41
2:U:450:ILE:CG1	2:U:451:ASP:N	2.53	0.41
2:Z:514:ARG:NH2	2:Z:535:LEU:HD22	2.34	0.41
2:Z:544:VAL:HG12	2:Z:545:PRO:CD	2.51	0.41
2:Z:406:LEU:HA	2:Z:449:ALA:O	2.20	0.41
2:Z:448:ALA:O	2:Z:540:THR:N	2.42	0.41
2:Y:408:SER:OG	2:Y:409:PRO:HD2	2.21	0.41
2:X:496:ARG:O	2:X:496:ARG:CG	2.61	0.41
2:X:537:GLY:O	2:X:538:ASP:CB	2.68	0.41
2:X:453:ASN:HB2	2:X:454:TYR:H	1.70	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:556:LEU:HD23	2:X:556:LEU:O	2.20	0.41
2:X:627:PHE:CD1	2:X:627:PHE:C	2.94	0.41
2:W:408:SER:OG	2:W:409:PRO:HD2	2.21	0.41
2:W:554:ARG:HG2	2:W:558:ASN:OD1	2.21	0.41
2:W:514:ARG:HE	2:W:518:TYR:HE1	1.66	0.41
2:W:537:GLY:O	2:W:538:ASP:CB	2.68	0.41
2:W:629:ILE:CG2	2:W:630:GLN:N	2.83	0.41
2:Y:391:LYS:CE	2:Y:440:ASN:ND2	2.83	0.41
2:V:391:LYS:CE	2:V:440:ASN:ND2	2.83	0.41
2:U:577:ASN:N	2:U:580:THR:CG2	2.82	0.41
2:U:618:ILE:CG2	2:U:619:ASP:N	2.83	0.41
2:W:614:THR:HB	2:W:620:ARG:CA	2.40	0.41
2:W:583:SER:C	2:W:586:THR:HG22	2.41	0.41
2:X:304:ILE:HG13	2:X:305:TYR:HE2	1.81	0.41
2:W:73:GLN:HB3	2:W:500:LEU:CD1	2.51	0.41
2:W:100:GLU:HG3	2:W:186:LYS:N	2.31	0.41
2:W:100:GLU:HB2	2:W:185:GLY:HA3	2.03	0.41
2:X:100:GLU:HG3	2:X:186:LYS:N	2.32	0.41
2:Z:423:VAL:O	2:Z:424:ASP:C	2.59	0.41
2:U:423:VAL:O	2:U:424:ASP:C	2.59	0.41
2:V:423:VAL:O	2:V:424:ASP:C	2.59	0.41
2:U:605:ARG:HG2	2:U:608:CYS:H	1.86	0.41
2:W:605:ARG:HG2	2:W:608:CYS:H	1.86	0.41
2:W:200:ASN:O	2:W:201:ALA:C	2.59	0.41
2:V:364:ASP:N	2:V:364:ASP:OD1	2.50	0.41
2:X:370:VAL:O	2:X:370:VAL:HG23	2.20	0.41
1:F:106:VAL:HG12	1:F:107:SER:H	1.86	0.41
2:V:537:GLY:O	2:V:538:ASP:CB	2.68	0.41
2:Z:526:THR:CG2	2:Z:535:LEU:CD2	2.94	0.41
2:Y:408:SER:HB2	2:Y:471:ALA:CB	2.50	0.41
2:X:427:VAL:HG21	2:X:516:ARG:NH2	2.36	0.41
2:X:371:GLN:NE2	2:X:371:GLN:N	2.69	0.41
2:V:43:GLN:NE2	2:V:77:ASP:HB2	2.36	0.41
2:W:586:THR:CG2	2:W:587:GLU:N	2.84	0.41
2:Z:581:ARG:HB2	2:Z:623:PHE:HZ	1.83	0.41
2:U:46:ASN:HB2	2:U:49:ASP:CB	2.51	0.41
1:B:149:MET:HG3	1:B:212:THR:O	2.21	0.41
1:C:124:THR:CB	1:C:130:MET:HG2	2.50	0.41
2:U:498:GLN:HG3	2:U:533:TYR:HA	2.03	0.41
1:C:77:LEU:HD13	1:C:120:LEU:HD23	2.03	0.41
2:X:402:ASP:O	2:X:402:ASP:CG	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:V:514:ARG:HE	2:V:518:TYR:HE1	1.67	0.40
2:V:554:ARG:HG2	2:V:558:ASN:OD1	2.20	0.40
2:Z:521:ALA:HB1	2:Z:540:THR:CA	2.46	0.40
2:Z:627:PHE:C	2:Z:627:PHE:CD1	2.94	0.40
2:W:556:LEU:HD13	2:W:631:PRO:HA	2.02	0.40
2:X:575:LEU:CD1	2:X:575:LEU:N	2.82	0.40
2:U:583:SER:C	2:U:586:THR:HG22	2.41	0.40
2:Z:215:LYS:HE3	2:Z:329:ASN:CG	2.41	0.40
2:V:73:GLN:HB3	2:V:500:LEU:CD1	2.52	0.40
2:Z:73:GLN:HB3	2:Z:500:LEU:CD1	2.51	0.40
1:E:64:ASP:O	1:E:68:VAL:HG23	2.20	0.40
1:E:108:GLN:HB3	1:E:199:TYR:HB2	2.03	0.40
2:X:200:ASN:O	2:X:201:ALA:C	2.59	0.40
2:U:290:VAL:HG11	2:U:322:TYR:CE1	2.57	0.40
2:W:402:ASP:O	2:W:402:ASP:CG	2.58	0.40
2:Y:92:SER:OG	2:Y:343:GLY:HA3	2.21	0.40
2:U:406:LEU:HA	2:U:449:ALA:O	2.20	0.40
2:U:544:VAL:HG12	2:U:545:PRO:CD	2.51	0.40
2:V:408:SER:OG	2:V:409:PRO:HD2	2.21	0.40
2:Z:445:SER:O	2:Z:540:THR:O	2.39	0.40
2:Y:538:ASP:HB2	2:Y:539:LYS:H	1.42	0.40
2:Y:445:SER:O	2:Y:540:THR:O	2.39	0.40
2:W:544:VAL:HG12	2:W:545:PRO:CD	2.51	0.40
2:W:627:PHE:CD1	2:W:627:PHE:C	2.95	0.40
2:Y:627:PHE:C	2:Y:627:PHE:CD1	2.94	0.40
2:V:616:SER:O	2:V:617:VAL:HG13	2.22	0.40
2:W:575:LEU:CD1	2:W:575:LEU:N	2.83	0.40
2:W:43:GLN:NE2	2:W:77:ASP:HB2	2.36	0.40
2:V:66:MET:O	2:V:67:SER:C	2.60	0.40
2:Z:573:PHE:HD2	2:Z:574:GLU:OE2	2.04	0.40
2:V:624:VAL:CG1	2:V:643:VAL:HB	2.51	0.40
2:V:290:VAL:HG11	2:V:322:TYR:CE1	2.56	0.40
2:V:252:LEU:HA	2:V:253:PRO:HD3	1.80	0.40
1:E:45:SER:HA	1:E:78:HIS:CD2	2.57	0.40
2:W:498:GLN:HG3	2:W:533:TYR:HA	2.03	0.40
2:X:119:LYS:HE3	2:X:124:ASP:OD1	2.20	0.40
2:Y:308:ASN:HD21	2:Y:313:ASP:CB	2.34	0.40
2:U:517:LEU:HB2	2:U:522:ILE:HG23	1.95	0.40
2:U:445:SER:O	2:U:540:THR:O	2.39	0.40
2:U:556:LEU:HD13	2:U:631:PRO:HA	2.01	0.40
2:Z:629:ILE:CG2	2:Z:630:GLN:N	2.83	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:554:ARG:HG2	2:X:558:ASN:OD1	2.21	0.40
2:Y:427:VAL:O	2:Y:431:THR:CG2	2.68	0.40
2:Z:391:LYS:CE	2:Z:440:ASN:ND2	2.84	0.40
2:Y:616:SER:O	2:Y:617:VAL:HG13	2.22	0.40
2:U:616:SER:O	2:U:617:VAL:HG13	2.22	0.40
2:W:371:GLN:NE2	2:W:371:GLN:N	2.70	0.40
2:W:381:GLU:O	2:W:382:SER:C	2.59	0.40
2:W:68:ALA:O	2:W:69:MET:C	2.58	0.40
2:V:68:ALA:O	2:V:69:MET:C	2.58	0.40
2:U:66:MET:O	2:U:67:SER:C	2.60	0.40
2:Z:90:LYS:N	2:Z:344:LEU:O	2.48	0.40
1:B:222:ASP:OD1	1:B:222:ASP:N	2.53	0.40
2:V:92:SER:OG	2:V:343:GLY:HA3	2.21	0.40
2:W:92:SER:OG	2:W:343:GLY:HA3	2.21	0.40
1:F:28:ARG:HD3	1:F:28:ARG:HA	1.90	0.40
2:Z:308:ASN:HD21	2:Z:313:ASP:CB	2.34	0.40
2:V:556:LEU:O	2:V:556:LEU:HD23	2.20	0.40
2:Z:627:PHE:CD1	2:Z:629:ILE:CG1	3.04	0.40
2:W:445:SER:O	2:W:540:THR:O	2.39	0.40
2:W:627:PHE:CE1	2:W:640:LEU:HB3	2.55	0.40
2:Y:575:LEU:N	2:Y:575:LEU:CD1	2.83	0.40
2:Z:43:GLN:NE2	2:Z:77:ASP:HB2	2.36	0.40
2:Z:381:GLU:O	2:Z:382:SER:C	2.59	0.40
2:V:581:ARG:HB2	2:V:623:PHE:HZ	1.84	0.40
2:W:347:ASN:HA	2:W:350:VAL:HG23	2.04	0.40
2:V:100:GLU:HB2	2:V:185:GLY:HA3	2.03	0.40
2:X:605:ARG:HG2	2:X:608:CYS:H	1.87	0.40
2:Y:200:ASN:O	2:Y:201:ALA:C	2.59	0.40
2:V:104:SER:HB2	2:V:181:VAL:HG12	2.04	0.40
1:A:150:TYR:O	1:A:211:THR:HA	2.22	0.40
2:X:478:CYS:C	2:X:480:ARG:N	2.72	0.40
2:Z:498:GLN:HG3	2:Z:533:TYR:HA	2.03	0.40
2:W:308:ASN:HD21	2:W:313:ASP:CB	2.34	0.40
2:W:566:ARG:HB2	2:W:566:ARG:NH1	2.37	0.40
2:V:404:LEU:HA	2:V:554:ARG:HH22	1.86	0.40
2:V:445:SER:O	2:V:540:THR:O	2.39	0.40
2:X:23:SER:OG	2:X:483:ASN:CA	2.69	0.40
2:W:558:ASN:O	2:W:561:LYS:HG2	2.21	0.40
2:Y:427:VAL:HG21	2:Y:516:ARG:NH2	2.36	0.40
2:U:50:LEU:HD11	2:U:65:PHE:CE1	2.56	0.40
2:V:51:VAL:HG13	2:V:55:GLY:C	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:U:391:LYS:CE	2:U:440:ASN:ND2	2.84	0.40
2:W:616:SER:O	2:W:617:VAL:HG13	2.21	0.40
2:Y:43:GLN:NE2	2:Y:77:ASP:HB2	2.36	0.40
2:X:282:ILE:HG23	2:X:289:ILE:HG23	2.04	0.40
2:X:347:ASN:HA	2:X:350:VAL:HG23	2.04	0.40
2:V:160:TYR:HA	2:V:161:PRO:HA	1.82	0.40
2:W:66:MET:O	2:W:67:SER:C	2.60	0.40
2:Y:605:ARG:HG2	2:Y:608:CYS:H	1.87	0.40
2:Y:90:LYS:N	2:Y:344:LEU:O	2.48	0.40
2:Z:61:THR:O	2:Z:62:ALA:C	2.59	0.40
1:B:211:THR:HB	1:B:223:LEU:HB3	2.03	0.40
2:V:308:ASN:HD21	2:V:313:ASP:CB	2.34	0.40
1:B:147:THR:HG23	1:B:163:ILE:HB	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	205/272 (75%)	184 (90%)	18 (9%)	3 (2%)	13	57
1	B	205/272 (75%)	184 (90%)	17 (8%)	4 (2%)	9	51
1	C	205/272 (75%)	184 (90%)	17 (8%)	4 (2%)	9	51
1	D	205/272 (75%)	184 (90%)	17 (8%)	4 (2%)	9	51
1	E	205/272 (75%)	183 (89%)	18 (9%)	4 (2%)	9	51
1	F	205/272 (75%)	184 (90%)	18 (9%)	3 (2%)	13	57
2	U	601/659 (91%)	479 (80%)	101 (17%)	21 (4%)	4	39
2	V	601/659 (91%)	479 (80%)	101 (17%)	21 (4%)	4	39
2	W	601/659 (91%)	479 (80%)	101 (17%)	21 (4%)	4	39
2	X	601/659 (91%)	479 (80%)	101 (17%)	21 (4%)	4	39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	Y	601/659 (91%)	481 (80%)	99 (16%)	21 (4%)	4	39
2	Z	601/659 (91%)	479 (80%)	101 (17%)	21 (4%)	4	39
All	All	4836/5586 (87%)	3979 (82%)	709 (15%)	148 (3%)	9	42

All (148) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	108	GLN
1	B	67	LYS
1	B	108	GLN
1	C	67	LYS
1	C	108	GLN
1	D	67	LYS
1	E	67	LYS
1	E	108	GLN
1	F	67	LYS
2	U	98	ASN
2	U	201	ALA
2	U	432	ALA
2	U	538	ASP
2	U	539	LYS
2	V	98	ASN
2	V	201	ALA
2	V	432	ALA
2	V	538	ASP
2	V	539	LYS
2	W	98	ASN
2	W	201	ALA
2	W	432	ALA
2	W	538	ASP
2	W	539	LYS
2	X	98	ASN
2	X	201	ALA
2	X	432	ALA
2	X	538	ASP
2	X	539	LYS
2	Y	98	ASN
2	Y	201	ALA
2	Y	432	ALA
2	Y	538	ASP
2	Y	539	LYS

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Mol	Chain	Res	Type
2	Z	98	ASN
2	Z	201	ALA
2	Z	432	ALA
2	Z	538	ASP
2	Z	539	LYS
1	D	108	GLN
1	F	108	GLN
2	U	403	CYS
2	U	480	ARG
2	U	504	LYS
2	V	403	CYS
2	V	480	ARG
2	V	504	LYS
2	W	403	CYS
2	W	480	ARG
2	W	504	LYS
2	X	403	CYS
2	X	480	ARG
2	X	504	LYS
2	Y	403	CYS
2	Y	480	ARG
2	Y	504	LYS
2	Z	403	CYS
2	Z	480	ARG
2	Z	504	LYS
1	A	67	LYS
1	F	111	PRO
2	U	62	ALA
2	U	311	ILE
2	U	348	ALA
2	U	482	ASP
2	U	531	ASP
2	V	62	ALA
2	V	348	ALA
2	V	482	ASP
2	V	531	ASP
2	W	62	ALA
2	W	348	ALA
2	W	482	ASP
2	W	531	ASP
2	X	62	ALA
2	X	311	ILE

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Mol	Chain	Res	Type
2	X	348	ALA
2	X	482	ASP
2	X	531	ASP
2	Y	62	ALA
2	Y	311	ILE
2	Y	348	ALA
2	Y	482	ASP
2	Y	531	ASP
2	Z	62	ALA
2	Z	348	ALA
2	Z	482	ASP
2	Z	531	ASP
1	A	111	PRO
1	E	111	PRO
2	U	634	SER
2	V	311	ILE
2	V	634	SER
2	W	311	ILE
2	W	634	SER
2	X	634	SER
2	Y	634	SER
2	Z	311	ILE
2	Z	634	SER
1	B	111	PRO
1	B	175	ALA
1	C	111	PRO
1	D	175	ALA
1	E	175	ALA
2	U	583	SER
2	V	583	SER
2	W	25	GLY
2	W	583	SER
2	X	25	GLY
2	X	583	SER
2	Y	583	SER
2	Z	25	GLY
2	Z	583	SER
2	U	25	GLY
2	U	304	ILE
2	V	25	GLY
2	V	304	ILE
2	X	304	ILE

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Mol	Chain	Res	Type
2	Y	25	GLY
2	Y	304	ILE
2	Z	304	ILE
1	D	111	PRO
2	W	304	ILE
2	Y	434	GLY
2	U	247	GLY
2	U	434	GLY
2	V	247	GLY
2	V	318	GLY
2	V	434	GLY
2	W	247	GLY
2	W	434	GLY
2	X	247	GLY
2	X	434	GLY
2	Y	247	GLY
2	Z	247	GLY
2	Z	434	GLY
1	C	106	VAL
2	Y	318	GLY
2	U	121	VAL
2	U	318	GLY
2	W	121	VAL
2	W	318	GLY
2	X	121	VAL
2	X	318	GLY
2	Y	121	VAL
2	Z	121	VAL
2	Z	318	GLY
2	V	121	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	192/250 (77%)	176 (92%)	16 (8%)	14 49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	192/250 (77%)	181 (94%)	11 (6%)	25	62
1	C	192/250 (77%)	176 (92%)	16 (8%)	14	49
1	D	192/250 (77%)	180 (94%)	12 (6%)	22	59
1	E	192/250 (77%)	180 (94%)	12 (6%)	22	59
1	F	192/250 (77%)	179 (93%)	13 (7%)	20	57
2	U	494/536 (92%)	448 (91%)	46 (9%)	11	42
2	V	494/536 (92%)	447 (90%)	47 (10%)	11	41
2	W	494/536 (92%)	447 (90%)	47 (10%)	11	41
2	X	494/536 (92%)	448 (91%)	46 (9%)	11	42
2	Y	494/536 (92%)	446 (90%)	48 (10%)	10	40
2	Z	494/536 (92%)	446 (90%)	48 (10%)	10	40
All	All	4116/4716 (87%)	3754 (91%)	362 (9%)	17	45

All (362) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	25	GLN
1	A	31	GLU
1	A	37	ILE
1	A	45	SER
1	A	50	MET
1	A	63	GLU
1	A	68	VAL
1	A	69	GLU
1	A	109	TYR
1	A	110	ASN
1	A	114	ILE
1	A	124	THR
1	A	125	ARG
1	A	138	LEU
1	A	161	ARG
1	A	212	THR
1	B	37	ILE
1	B	45	SER
1	B	50	MET
1	B	67	LYS
1	B	78	HIS
1	B	109	TYR

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Mol	Chain	Res	Type
1	B	124	THR
1	B	125	ARG
1	B	138	LEU
1	B	161	ARG
1	B	212	THR
1	C	9	SER
1	C	25	GLN
1	C	37	ILE
1	C	45	SER
1	C	50	MET
1	C	59	ILE
1	C	67	LYS
1	C	106	VAL
1	C	107	SER
1	C	109	TYR
1	C	110	ASN
1	C	114	ILE
1	C	125	ARG
1	C	138	LEU
1	C	161	ARG
1	C	212	THR
1	D	25	GLN
1	D	45	SER
1	D	50	MET
1	D	78	HIS
1	D	106	VAL
1	D	109	TYR
1	D	110	ASN
1	D	124	THR
1	D	125	ARG
1	D	138	LEU
1	D	161	ARG
1	D	212	THR
1	E	45	SER
1	E	50	MET
1	E	59	ILE
1	E	67	LYS
1	E	109	TYR
1	E	110	ASN
1	E	114	ILE
1	E	124	THR
1	E	125	ARG

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Mol	Chain	Res	Type
1	E	138	LEU
1	E	161	ARG
1	E	212	THR
1	F	25	GLN
1	F	37	ILE
1	F	45	SER
1	F	50	MET
1	F	59	ILE
1	F	67	LYS
1	F	106	VAL
1	F	109	TYR
1	F	124	THR
1	F	125	ARG
1	F	138	LEU
1	F	161	ARG
1	F	212	THR
2	U	50	LEU
2	U	58	THR
2	U	66	MET
2	U	67	SER
2	U	71	PHE
2	U	74	TYR
2	U	77	ASP
2	U	80	VAL
2	U	86	ARG
2	U	95	ILE
2	U	102	THR
2	U	150	ILE
2	U	162	THR
2	U	178	LEU
2	U	188	ILE
2	U	189	THR
2	U	202	GLU
2	U	213	ASN
2	U	290	VAL
2	U	345	SER
2	U	347	ASN
2	U	349	GLU
2	U	354	ASP
2	U	367	SER
2	U	368	VAL
2	U	371	GLN

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Mol	Chain	Res	Type
2	U	382	SER
2	U	383	LEU
2	U	388	THR
2	U	395	SER
2	U	404	LEU
2	U	431	THR
2	U	436	TYR
2	U	438	ASP
2	U	440	ASN
2	U	446	THR
2	U	450	ILE
2	U	453	ASN
2	U	460	LYS
2	U	483	ASN
2	U	499	ILE
2	U	501	ASN
2	U	590	GLN
2	U	593	GLN
2	U	612	ASN
2	U	621	ASN
2	V	50	LEU
2	V	58	THR
2	V	66	MET
2	V	67	SER
2	V	71	PHE
2	V	74	TYR
2	V	77	ASP
2	V	80	VAL
2	V	86	ARG
2	V	95	ILE
2	V	102	THR
2	V	150	ILE
2	V	162	THR
2	V	178	LEU
2	V	188	ILE
2	V	189	THR
2	V	202	GLU
2	V	213	ASN
2	V	290	VAL
2	V	345	SER
2	V	347	ASN
2	V	349	GLU

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Mol	Chain	Res	Type
2	V	354	ASP
2	V	367	SER
2	V	368	VAL
2	V	371	GLN
2	V	382	SER
2	V	383	LEU
2	V	388	THR
2	V	395	SER
2	V	404	LEU
2	V	430	ARG
2	V	431	THR
2	V	436	TYR
2	V	438	ASP
2	V	440	ASN
2	V	446	THR
2	V	450	ILE
2	V	453	ASN
2	V	460	LYS
2	V	483	ASN
2	V	499	ILE
2	V	501	ASN
2	V	590	GLN
2	V	593	GLN
2	V	612	ASN
2	V	621	ASN
2	W	50	LEU
2	W	58	THR
2	W	66	MET
2	W	67	SER
2	W	71	PHE
2	W	74	TYR
2	W	77	ASP
2	W	80	VAL
2	W	86	ARG
2	W	95	ILE
2	W	102	THR
2	W	150	ILE
2	W	162	THR
2	W	178	LEU
2	W	188	ILE
2	W	189	THR
2	W	202	GLU

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Mol	Chain	Res	Type
2	W	213	ASN
2	W	290	VAL
2	W	345	SER
2	W	347	ASN
2	W	349	GLU
2	W	354	ASP
2	W	367	SER
2	W	368	VAL
2	W	371	GLN
2	W	382	SER
2	W	383	LEU
2	W	388	THR
2	W	395	SER
2	W	404	LEU
2	W	431	THR
2	W	436	TYR
2	W	437	THR
2	W	438	ASP
2	W	440	ASN
2	W	446	THR
2	W	450	ILE
2	W	453	ASN
2	W	460	LYS
2	W	483	ASN
2	W	499	ILE
2	W	501	ASN
2	W	590	GLN
2	W	593	GLN
2	W	612	ASN
2	W	621	ASN
2	X	50	LEU
2	X	58	THR
2	X	66	MET
2	X	67	SER
2	X	71	PHE
2	X	74	TYR
2	X	77	ASP
2	X	80	VAL
2	X	86	ARG
2	X	95	ILE
2	X	102	THR
2	X	150	ILE

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Mol	Chain	Res	Type
2	X	162	THR
2	X	178	LEU
2	X	188	ILE
2	X	189	THR
2	X	202	GLU
2	X	213	ASN
2	X	290	VAL
2	X	345	SER
2	X	347	ASN
2	X	349	GLU
2	X	354	ASP
2	X	367	SER
2	X	368	VAL
2	X	371	GLN
2	X	382	SER
2	X	383	LEU
2	X	388	THR
2	X	395	SER
2	X	404	LEU
2	X	431	THR
2	X	436	TYR
2	X	438	ASP
2	X	440	ASN
2	X	446	THR
2	X	450	ILE
2	X	453	ASN
2	X	460	LYS
2	X	483	ASN
2	X	499	ILE
2	X	501	ASN
2	X	590	GLN
2	X	593	GLN
2	X	612	ASN
2	X	621	ASN
2	Y	50	LEU
2	Y	58	THR
2	Y	66	MET
2	Y	67	SER
2	Y	71	PHE
2	Y	74	TYR
2	Y	77	ASP
2	Y	80	VAL

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Mol	Chain	Res	Type
2	Y	86	ARG
2	Y	95	ILE
2	Y	102	THR
2	Y	150	ILE
2	Y	162	THR
2	Y	178	LEU
2	Y	188	ILE
2	Y	189	THR
2	Y	202	GLU
2	Y	213	ASN
2	Y	290	VAL
2	Y	345	SER
2	Y	347	ASN
2	Y	349	GLU
2	Y	354	ASP
2	Y	367	SER
2	Y	368	VAL
2	Y	371	GLN
2	Y	382	SER
2	Y	383	LEU
2	Y	388	THR
2	Y	395	SER
2	Y	404	LEU
2	Y	430	ARG
2	Y	431	THR
2	Y	436	TYR
2	Y	437	THR
2	Y	438	ASP
2	Y	440	ASN
2	Y	446	THR
2	Y	450	ILE
2	Y	453	ASN
2	Y	460	LYS
2	Y	483	ASN
2	Y	499	ILE
2	Y	501	ASN
2	Y	590	GLN
2	Y	593	GLN
2	Y	612	ASN
2	Y	621	ASN
2	Z	50	LEU
2	Z	58	THR

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Mol	Chain	Res	Type
2	Z	66	MET
2	Z	67	SER
2	Z	71	PHE
2	Z	74	TYR
2	Z	77	ASP
2	Z	80	VAL
2	Z	86	ARG
2	Z	95	ILE
2	Z	102	THR
2	Z	150	ILE
2	Z	162	THR
2	Z	178	LEU
2	Z	188	ILE
2	Z	189	THR
2	Z	202	GLU
2	Z	213	ASN
2	Z	290	VAL
2	Z	345	SER
2	Z	347	ASN
2	Z	349	GLU
2	Z	354	ASP
2	Z	367	SER
2	Z	368	VAL
2	Z	371	GLN
2	Z	382	SER
2	Z	383	LEU
2	Z	388	THR
2	Z	395	SER
2	Z	404	LEU
2	Z	430	ARG
2	Z	431	THR
2	Z	436	TYR
2	Z	437	THR
2	Z	438	ASP
2	Z	440	ASN
2	Z	446	THR
2	Z	450	ILE
2	Z	453	ASN
2	Z	460	LYS
2	Z	483	ASN
2	Z	499	ILE
2	Z	501	ASN

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Mol	Chain	Res	Type
2	Z	590	GLN
2	Z	593	GLN
2	Z	612	ASN
2	Z	621	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (99) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	152	GLN
2	U	43	GLN
2	U	70	ASN
2	U	166	ASN
2	U	213	ASN
2	U	278	GLN
2	U	390	GLN
2	U	440	ASN
2	U	453	ASN
2	U	457	GLN
2	U	511	GLN
2	U	513	GLN
2	U	523	ASN
2	U	590	GLN
2	U	612	ASN
2	U	621	ASN
2	U	630	GLN
2	U	641	ASN
2	V	43	GLN
2	V	70	ASN
2	V	213	ASN
2	V	278	GLN
2	V	390	GLN
2	V	440	ASN
2	V	453	ASN
2	V	457	GLN
2	V	511	GLN
2	V	513	GLN
2	V	523	ASN
2	V	590	GLN
2	V	612	ASN
2	V	621	ASN
2	V	630	GLN
2	V	641	ASN

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Mol	Chain	Res	Type
2	W	43	GLN
2	W	70	ASN
2	W	213	ASN
2	W	278	GLN
2	W	329	ASN
2	W	390	GLN
2	W	440	ASN
2	W	453	ASN
2	W	457	GLN
2	W	511	GLN
2	W	513	GLN
2	W	590	GLN
2	W	612	ASN
2	W	621	ASN
2	W	630	GLN
2	W	641	ASN
2	X	43	GLN
2	X	70	ASN
2	X	213	ASN
2	X	278	GLN
2	X	390	GLN
2	X	440	ASN
2	X	453	ASN
2	X	457	GLN
2	X	511	GLN
2	X	513	GLN
2	X	523	ASN
2	X	590	GLN
2	X	612	ASN
2	X	621	ASN
2	X	630	GLN
2	X	641	ASN
2	Y	43	GLN
2	Y	70	ASN
2	Y	213	ASN
2	Y	278	GLN
2	Y	329	ASN
2	Y	390	GLN
2	Y	440	ASN
2	Y	453	ASN
2	Y	457	GLN
2	Y	511	GLN

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Mol	Chain	Res	Type
2	Y	513	GLN
2	Y	523	ASN
2	Y	590	GLN
2	Y	612	ASN
2	Y	621	ASN
2	Y	630	GLN
2	Y	641	ASN
2	Z	43	GLN
2	Z	70	ASN
2	Z	213	ASN
2	Z	278	GLN
2	Z	390	GLN
2	Z	440	ASN
2	Z	453	ASN
2	Z	457	GLN
2	Z	511	GLN
2	Z	513	GLN
2	Z	523	ASN
2	Z	590	GLN
2	Z	612	ASN
2	Z	621	ASN
2	Z	630	GLN
2	Z	641	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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 ⓘ

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.