



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 01:57 PM BST

PDB ID : 3JAV
EMDB ID: : EMD-6369
Title : Structure of full-length IP3R1 channel in the apo-state determined by single particle cryo-EM
Authors : Fan, G.; Baker, M.L.; Wang, Z.; Baker, M.R.; Sinyagovskiy, P.A.; Chiu, W.; Ludtke, S.J.; Serysheva, I.I.
Deposited on : 2015-06-30
Resolution : 4.70 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

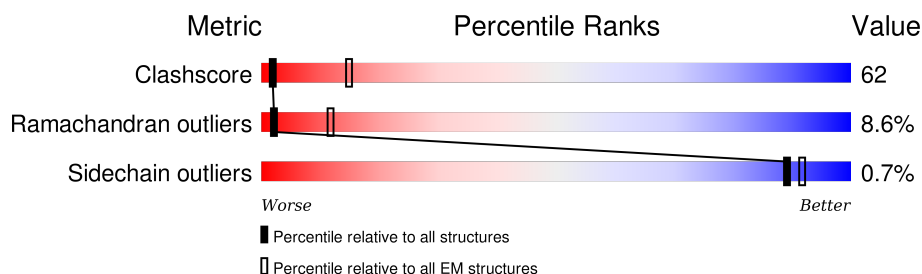
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.70 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	2750	58% 23% • 15%
1	B	2750	58% 24% • 15%
1	C	2750	58% 24% • 15%
1	D	2750	58% 24% • 15%

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 33472 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.

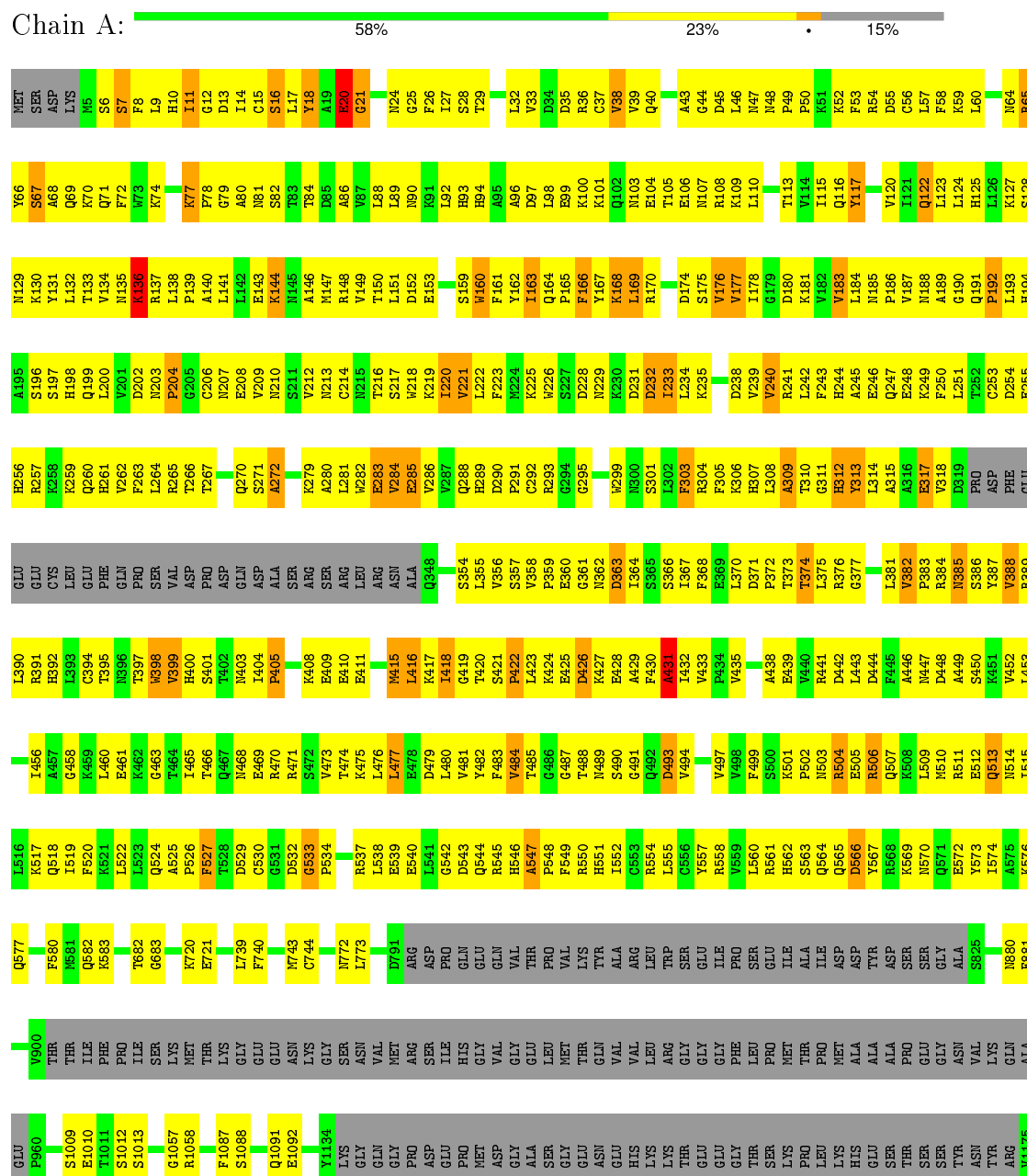
- Molecule 1 is a protein called Inositol 1,4,5-trisphosphate receptor type 1.

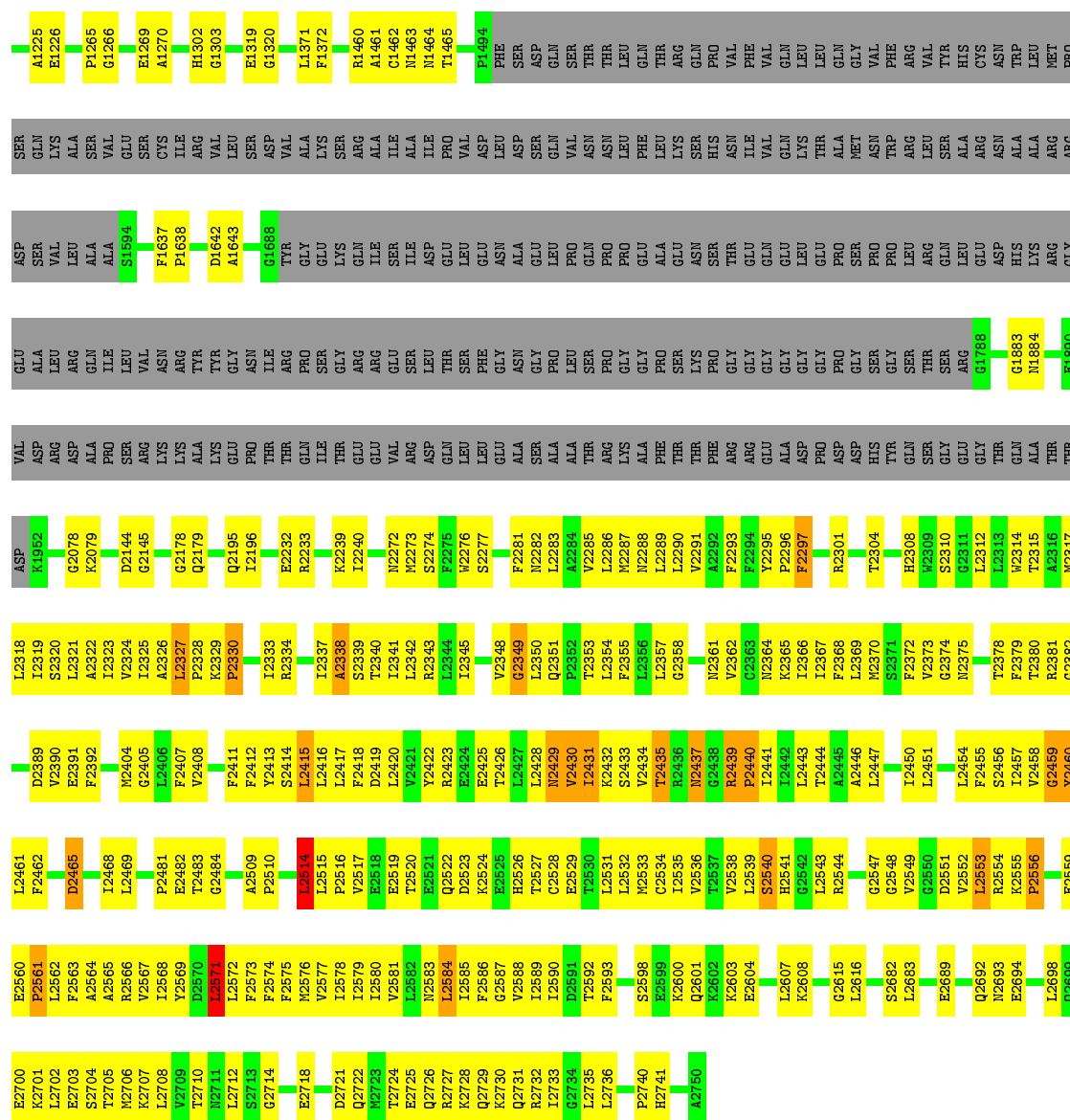
Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	2327	Total	C	N	O	S	0	1459
			8368	5879	1191	1265	33		
1	B	2327	Total	C	N	O	S	0	1459
			8368	5879	1191	1265	33		
1	C	2327	Total	C	N	O	S	0	1459
			8368	5879	1191	1265	33		
1	D	2327	Total	C	N	O	S	0	1459
			8368	5879	1191	1265	33		

3 Residue-property plots

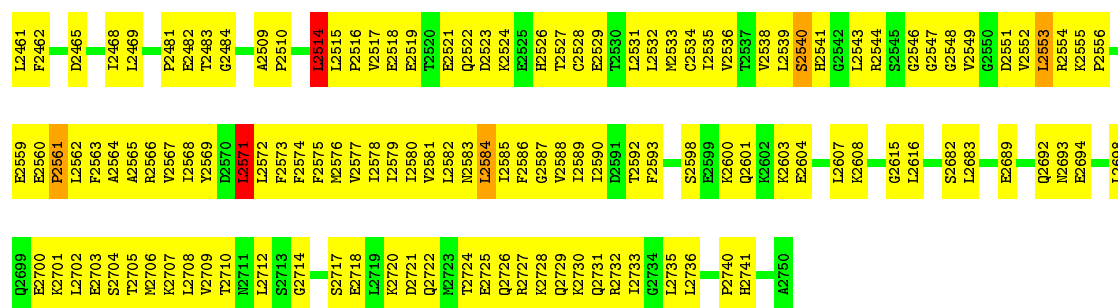
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric 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: Inositol 1,4,5-trisphosphate receptor type 1





D2389	L2318	THR	E1890	GLY	ARG	PRO	V1475	ALA	P881	K576	H514	V452	R389	GLU	E255
V2390	I2319	ASP	VAL	GLY	ASP	SER	A1225	GLU	P881	Q577	H515	L453	L390	GLU	H256
E2391	L2320	K1952	ASP	ALA	SER	GLN	E1226	P960	V900	F580	L516	I456	H391	CYS	R257
F2392	L2321	VAL	ARG	LEU	VAL	LYS	E1226	P960	THR	F580	K517	I456	H392	CYS	K258
K2404	A2322	ARG	ALA	ARG	ALA	SER	P1265	S1009	THR	M581	K518	A457	L393	LEU	K259
G2405	L2323	PRO	ALA	GLN	VAL	VAL	G1266	E1010	ILE	Q582	H519	G458	C394	LEU	Q260
L2406	V2324	GLU	ALA	LEU	ALA	GLU	G1266	T1011	PHE	K583	L522	K459	T395	PHE	H261
F2407	A2325	SER	SER	LEU	SER	VAL	E1269	S1012	PRO	T682	L523	L460	H396	GLN	V262
V2408	L2326	ARG	VAL	VAL	ARG	GLU	A1270	S1013	ILE	G683	L524	E461	T397	PRO	F263
K2329	P2327	LYS	LYS	ASN	CYS	SER	E1270	E1057	LYS	K683	A525	G463	H398	SER	L264
P2330	L2328	ARG	ALA	ARG	ILE	VAL	H1302	G1057	THR	K720	P626	T464	H400	VAL	R265
F2411	Q2179	THR	LYS	THR	VAL	VAL	G1303	R1058	THR	E721	F527	T465	S401	ASP	T266
F2412	Q2195	GLY	GLY	GLY	LEU	LEU	G1303	F1087	LYS	F739	T528	T466	T402	ASP	T267
Y2413	I2196	ASN	PRO	ASN	SER	SER	E1319	S1088	GLY	F740	H529	Q467	N403	GLN	Q270
S2414	I2196	ILE	THR	ILE	ASP	ASP	G1320	E1091	GLY	N468	C530	N468	N403	ASN	S271
L2415	THR	ARG	THR	ARG	VAL	VAL	E1371	Q1091	GLU	E469	K531	E469	P405	ALA	A272
L2416	PRO	PRO	GLN	PRO	ALA	ALA	L1371	E1092	ASN	M743	H532	R470	H401	SER	
A2338	R2233	GLY	GLY	GLY	LYS	SER	F1372	E1092	LYS	C744	K533	R471	K408	ARG	K279
L2417	E2232	LYS	GLY	LYS	LYS	SER	F1372	E1092	GLY	N772	L541	S472	E409	SER	L280
S2339	R2233	GLY	GLY	GLY	ARG	ARG	R1460	Y1134	LYS	L773	H537	V473	E410	ARG	L281
L2418	I2240	ARG	GLY	ARG	VAL	VAL	A1461	Y1134	GLY	L773	L538	V474	E411	LEU	W282
D2419	L2341	GLY	ILE	ILE	ALA	ALA	C1462	Y1134	GLN	M791	K540	K475	K412	ARG	E283
V2420	L2342	VAL	VAL	ILE	ILE	ILE	C1462	Y1134	VAL	D791	H545	K476		ASN	V284
Y2421	L2343	ARG	ARG	ILE	ALA	ALA	N1463	Y1134	GLY	ARG	E540	L477	M445	ALA	E285
Y2422	R2343	ILE	ASP	ILE	ILE	ILE	N1464	Y1134	PRO	ASP	H541	E478	L446	ALA	V286
R2423	L2344	LEU	GLN	THR	GLY	VAL	T1465	Y1134	SER	PRO	L541	D479	L417	ARG	V287
E2424	I2345	THR	GLN	THR	LEU	VAL	P1494	Y1134	ILE	ASP	H542	L480	L418	SER	Q288
E2425	V2348	SER	LEU	THR	ASP	ASP	PHE	Y1134	GLY	GLN	H543	L480	L419	ARG	H289
L2427	G2349	GLY	LEU	GLY	GLY	ASN	ASP	Y1134	THR	GLY	K544	V481	G419	LEU	W290
L2428	L2350	ASN	ALA	ASN	ALA	LEU	SER	Y1134	VAL	GLN	H545	Y482	T420	ARG	D290
N2429	L2351	LYS	ALA	ASN	ALA	SER	ASP	Y1134	GLY	VAL	H546	F483	S421	SER	P291
V2430	Q2351	PRO	ALA	PRO	GLY	GLN	GLN	Y1134	ALA	THR	H547	V484	P422	SER	C292
I2431	P2352	LEU	ALA	LEU	LEU	VAL	GLN	Y1134	GLY	PRO	H548	T485	L423	GLN	R293
K2432	L2353	SER	THR	SER	GLN	VAL	THR	Y1134	LEU	VAL	H549	G486	K423	ARG	E294
S2433	L2354	THR	THR	THR	THR	ASN	THR	Y1134	THR	VAL	H550	G487	E425	GLY	G295
V2434	F2355	PRO	PRO	PRO	PRO	GLY	THR	Y1134	LYS	LYS	H551	T488	E425	ALA	
T2435	L2356	GLY	LYS	GLY	LEU	LEU	GLN	Y1134	THR	THR	H552	N489	D426	ALA	
R2436	L2357	PRO	ALA	PRO	ALA	LEU	THR	Y1134	ALA	ALA	H553	S490	E423	ALA	
N2437	G2358	THR	PHE	THR	ALA	LEU	THR	Y1134	VAL	ARG	H554	G491	E423	ALA	
G2438	N2361	THR	THR	THR	THR	SER	ARG	Y1134	LEU	LEU	H555	Q492	A429	ALA	
R2439	V2362	THR	PHE	THR	ASN	LYS	GLN	Y1134	LEU	TRP	H556	V493	F430	ALA	
L2440	C2363	ARG	ARG	GLY	SER	HIS	THR	Y1134	GLY	SER	H557	V494	A431	ALA	
I2441	L2364	GLY	GLY	GLY	THR	ASN	VAL	Y1134	GLY	GLY	H558	V494	I432	ALA	
L2442	K2365	GLY	GLY	GLY	GLY	ILE	PHE	Y1134	GLY	ILE	H559	V494	I432	ALA	
L2443	I2366	GLY	ALA	GLY	GLY	VAL	VAL	Y1134	GLY	PRO	H560	V494	V433	ALA	
A2445	I2367	ASP	ASP	GLY	GLY	GLN	GLN	Y1134	THR	SER	H561	V494	V435	ALA	
L2446	F2368	GLY	PRO	GLY	GLY	LYS	LEU	Y1134	PRO	GLY	H562	V494	A438	ALA	
L2447	L2369	PRO	PRO	PRO	PRO	THR	GLN	Y1134	THR	ILE	H563	V494	E439	ALA	
	S2371	ASP	ASP	ASP	SER	MET	VAL	Y1134	PRO	ILE	H564	V494	P502	ALA	
	F2372	SER	HIS	HIS	PRO	ASN	VAL	Y1134	MET	ASP	H565	V494	N503	ALA	
	F2373	GLY	TTR	TTR	PRO	THR	PHE	Y1134	ALA	ASP	H566	V494	D442	ALA	
	V2373	SER	GLN	GLN	LEU	THR	ARG	Y1134	ALA	TYR	H567	V494	E504	ALA	
	G2374	THR	SER	THR	LEU	VAL	VAL	Y1134	ALA	ASP	H568	V494	E505	ALA	
	N2375	GLY	GLY	GLY	ARG	LEU	THR	Y1134	PRO	ASP	H569	V494	Q507	ALA	
	L2454	GLY	GLY	GLY	THR	ALA	THR	Y1134	GLY	SER	H570	V494	F445	ALA	
F2455	L2313	GLY	GLY	GLY	LEU	ALA	HIS	Y1134	THR	THR	H571	V494	N445	ALA	
S2456	L2314	THR	THR	THR	ARG	ASN	CYS	Y1134	SER	GLY	H572	V494	N447	ALA	
I2457	F2379	THR	THR	THR	ASP	ASN	ASN	Y1134	THR	ALA	H573	V494	D448	ALA	
V2458	L2380	GLN	GLN	GLN	HIS	ALA	THR	Y1134	ASN	ALA	H574	V494	D449	ALA	
G2459	R2381	ALA	ALA	ALA	LYS	LYS	LEU	Y1134	VAL	S245	H575	V494	S450	ALA	
Y2460	G2382	ARG	THR	THR	ARG	ARG	MET	Y1134	GLN	N850	A575	V494	K451	ALA	






G2459	E2559	L2698
Y2460	E2560	Q2699
L2461	P2561	E2700
F2462	L2562	K2701
	F2563	L2702
	A2564	E2703
D2465	A2565	S2704
	R2566	T2705
L2468		M2706
L2469	V2567	K2707
	I2568	L2708
P2481	Y2569	V2709
E2482	D2570	T2710
T2483	L2571	E2711
G2484	L2572	L2712
	F2573	S2713
A2509	F2574	G2714
P2510	F2575	
L2514	M2576	S2717
L2515	V2577	E2718
P2516	L2578	L2719
V2517	I2579	K2720
E2518	I2580	D2721
E2519	V2581	Q2722
T2520	L2582	M2723
E2521	M2583	T2724
Q2522	L2584	E2725
D2523	I2585	Q2726
K2524	F2586	R2727
E2525	G2587	K2728
E2526	V2588	Q2729
T2527	I2589	K2730
C2528	I2590	Q2731
E2529	D2591	R2732
T2530	T2592	I2733
L2531	F2593	G2734
L2532		L2735
M2533	S2598	L2736
C2534	E2599	
I2535	K2600	P2740
V2536	Q2601	H2741
T2537	K2602	
V2538	K2603	A2750
L2539	E2604	
S2540		
H2541	L2607	
G2542	K2608	
L2543	G2615	
R2544	L2616	
G2547	S2682	
G2548	L2683	
V2549		
G2550	E2689	
D2551		
V2552		
L2553	Q2692	
R2554	M2693	
K2555	E2694	
P2556		

4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	96106	Depositor
Resolution determination method	FSC 0.143	Depositor
CTF correction method	CTFFIND3	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	22	Depositor
Minimum defocus (nm)	600	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	23000	Depositor
Image detector	GATAN K2 (4k x 4k)	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	2.33	24/7045 (0.3%)	0.89	25/9516 (0.3%)
1	B	2.33	24/7045 (0.3%)	0.89	25/9516 (0.3%)
1	C	2.34	24/7045 (0.3%)	0.89	25/9516 (0.3%)
1	D	2.34	28/7045 (0.4%)	0.91	29/9516 (0.3%)
All	All	2.34	100/28180 (0.4%)	0.89	104/38064 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	8
1	B	0	8
1	C	0	8
1	D	0	8
All	All	0	32

All (100) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	20	GLU	CG-CD	82.22	2.75	1.51
1	D	20	GLU	CG-CD	82.21	2.75	1.51
1	C	20	GLU	CG-CD	82.19	2.75	1.51
1	A	20	GLU	CG-CD	82.13	2.75	1.51
1	D	176	VAL	CA-CB	77.97	3.18	1.54
1	B	176	VAL	CA-CB	77.93	3.18	1.54
1	C	176	VAL	CA-CB	77.90	3.18	1.54
1	A	176	VAL	CA-CB	77.88	3.18	1.54
1	A	18	TYR	CD2-CE2	50.91	2.15	1.39
1	C	18	TYR	CD2-CE2	50.91	2.15	1.39
1	D	18	TYR	CD2-CE2	50.78	2.15	1.39
1	B	18	TYR	CD2-CE2	50.77	2.15	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	18	TYR	CD1-CE1	46.80	2.09	1.39
1	A	18	TYR	CD1-CE1	46.78	2.09	1.39
1	B	18	TYR	CD1-CE1	46.73	2.09	1.39
1	D	18	TYR	CD1-CE1	46.72	2.09	1.39
1	D	117	TYR	CD2-CE2	43.66	2.04	1.39
1	C	117	TYR	CD2-CE2	43.65	2.04	1.39
1	B	117	TYR	CD2-CE2	43.62	2.04	1.39
1	A	117	TYR	CD2-CE2	43.61	2.04	1.39
1	A	303	PHE	CD2-CE2	41.56	2.22	1.39
1	C	303	PHE	CD2-CE2	41.56	2.22	1.39
1	A	117	TYR	CD1-CE1	41.47	2.01	1.39
1	C	117	TYR	CD1-CE1	41.47	2.01	1.39
1	D	303	PHE	CD2-CE2	41.46	2.22	1.39
1	B	303	PHE	CD2-CE2	41.45	2.22	1.39
1	B	117	TYR	CD1-CE1	41.38	2.01	1.39
1	D	117	TYR	CD1-CE1	41.38	2.01	1.39
1	D	303	PHE	CD1-CE1	40.92	2.21	1.39
1	A	303	PHE	CD1-CE1	40.88	2.21	1.39
1	B	303	PHE	CD1-CE1	40.87	2.21	1.39
1	C	303	PHE	CD1-CE1	40.83	2.21	1.39
1	D	303	PHE	CE2-CZ	39.66	2.12	1.37
1	C	303	PHE	CE2-CZ	39.65	2.12	1.37
1	B	303	PHE	CE2-CZ	39.63	2.12	1.37
1	A	303	PHE	CE2-CZ	39.62	2.12	1.37
1	B	303	PHE	CE1-CZ	38.81	2.11	1.37
1	D	303	PHE	CE1-CZ	38.81	2.11	1.37
1	C	303	PHE	CE1-CZ	38.78	2.11	1.37
1	A	303	PHE	CE1-CZ	38.76	2.10	1.37
1	B	285	GLU	CA-C	35.21	2.44	1.52
1	D	285	GLU	CA-C	35.20	2.44	1.52
1	A	285	GLU	CA-C	35.20	2.44	1.52
1	C	285	GLU	CA-C	35.19	2.44	1.52
1	A	18	TYR	CE2-CZ	32.09	1.80	1.38
1	B	18	TYR	CE2-CZ	32.07	1.80	1.38
1	D	18	TYR	CE2-CZ	32.07	1.80	1.38
1	C	18	TYR	CE2-CZ	32.07	1.80	1.38
1	C	117	TYR	CE1-CZ	31.99	1.80	1.38
1	A	117	TYR	CE1-CZ	31.96	1.80	1.38
1	D	18	TYR	CE1-CZ	31.93	1.80	1.38
1	D	117	TYR	CE1-CZ	31.90	1.80	1.38
1	B	18	TYR	CE1-CZ	31.89	1.80	1.38
1	B	117	TYR	CE1-CZ	31.89	1.80	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	18	TYR	CE1-CZ	31.88	1.79	1.38
1	C	18	TYR	CE1-CZ	31.85	1.79	1.38
1	B	117	TYR	CE2-CZ	31.14	1.79	1.38
1	D	117	TYR	CE2-CZ	31.14	1.79	1.38
1	C	117	TYR	CE2-CZ	31.08	1.78	1.38
1	A	117	TYR	CE2-CZ	31.06	1.78	1.38
1	A	117	TYR	CG-CD2	25.64	1.72	1.39
1	C	117	TYR	CG-CD2	25.59	1.72	1.39
1	D	117	TYR	CG-CD2	25.59	1.72	1.39
1	B	117	TYR	CG-CD2	25.53	1.72	1.39
1	D	303	PHE	CG-CD2	25.22	1.76	1.38
1	B	303	PHE	CG-CD2	25.18	1.76	1.38
1	A	303	PHE	CG-CD2	25.17	1.76	1.38
1	C	303	PHE	CG-CD2	25.17	1.76	1.38
1	D	18	TYR	CG-CD1	25.02	1.71	1.39
1	B	18	TYR	CG-CD1	24.97	1.71	1.39
1	C	18	TYR	CG-CD1	24.97	1.71	1.39
1	C	18	TYR	CG-CD2	24.94	1.71	1.39
1	A	18	TYR	CG-CD1	24.93	1.71	1.39
1	B	18	TYR	CG-CD2	24.90	1.71	1.39
1	D	18	TYR	CG-CD2	24.90	1.71	1.39
1	A	18	TYR	CG-CD2	24.89	1.71	1.39
1	A	303	PHE	CG-CD1	24.31	1.75	1.38
1	C	303	PHE	CG-CD1	24.31	1.75	1.38
1	B	303	PHE	CG-CD1	24.30	1.75	1.38
1	D	303	PHE	CG-CD1	24.25	1.75	1.38
1	A	117	TYR	CG-CD1	24.07	1.70	1.39
1	C	117	TYR	CG-CD1	24.07	1.70	1.39
1	B	117	TYR	CG-CD1	24.04	1.70	1.39
1	D	117	TYR	CG-CD1	24.04	1.70	1.39
1	D	2428	LEU	CA-C	8.77	1.75	1.52
1	A	176	VAL	CB-CG2	8.55	1.70	1.52
1	C	176	VAL	CB-CG2	8.54	1.70	1.52
1	D	176	VAL	CB-CG2	8.53	1.70	1.52
1	B	176	VAL	CB-CG2	8.50	1.70	1.52
1	C	176	VAL	CB-CG1	8.18	1.70	1.52
1	A	176	VAL	CB-CG1	8.14	1.70	1.52
1	B	176	VAL	CB-CG1	8.10	1.69	1.52
1	D	176	VAL	CB-CG1	8.09	1.69	1.52
1	D	2428	LEU	N-CA	7.95	1.62	1.46
1	C	20	GLU	CB-CG	7.40	1.66	1.52
1	A	20	GLU	CB-CG	7.40	1.66	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	20	GLU	CB-CG	7.39	1.66	1.52
1	D	20	GLU	CB-CG	7.38	1.66	1.52
1	D	2435	THR	C-O	5.55	1.33	1.23
1	D	2428	LEU	C-O	5.43	1.33	1.23

All (104) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	20	GLU	OE1-CD-OE2	-19.29	100.15	123.30
1	D	20	GLU	OE1-CD-OE2	-19.28	100.16	123.30
1	A	20	GLU	OE1-CD-OE2	-19.28	100.17	123.30
1	C	20	GLU	OE1-CD-OE2	-19.26	100.19	123.30
1	A	285	GLU	O-C-N	-12.35	102.94	122.70
1	C	285	GLU	O-C-N	-12.35	102.94	122.70
1	D	285	GLU	O-C-N	-12.34	102.96	122.70
1	B	285	GLU	O-C-N	-12.31	103.00	122.70
1	A	176	VAL	CA-CB-CG2	11.13	127.59	110.90
1	B	176	VAL	CA-CB-CG2	11.12	127.59	110.90
1	D	176	VAL	CA-CB-CG2	11.12	127.58	110.90
1	C	176	VAL	CA-CB-CG2	11.11	127.56	110.90
1	D	2428	LEU	N-CA-C	10.78	140.11	111.00
1	C	2429	ASN	N-CA-C	10.35	138.93	111.00
1	A	2429	ASN	N-CA-C	10.33	138.90	111.00
1	B	2429	ASN	N-CA-C	10.32	138.87	111.00
1	A	176	VAL	CA-CB-CG1	10.15	126.13	110.90
1	C	176	VAL	CA-CB-CG1	10.13	126.10	110.90
1	B	176	VAL	CA-CB-CG1	10.12	126.08	110.90
1	D	176	VAL	CA-CB-CG1	10.12	126.07	110.90
1	C	285	GLU	N-CA-CB	-8.84	94.69	110.60
1	A	285	GLU	N-CA-CB	-8.81	94.74	110.60
1	B	285	GLU	N-CA-CB	-8.79	94.77	110.60
1	D	285	GLU	N-CA-CB	-8.79	94.77	110.60
1	D	2429	ASN	N-CA-C	8.24	133.25	111.00
1	B	285	GLU	CB-CA-C	7.54	125.47	110.40
1	D	285	GLU	CB-CA-C	7.53	125.47	110.40
1	C	285	GLU	CB-CA-C	7.53	125.45	110.40
1	A	285	GLU	CB-CA-C	7.51	125.43	110.40
1	B	176	VAL	CB-CA-C	7.26	125.20	111.40
1	D	176	VAL	CB-CA-C	7.26	125.19	111.40
1	C	176	VAL	CB-CA-C	7.25	125.18	111.40
1	A	176	VAL	CB-CA-C	7.25	125.17	111.40
1	D	285	GLU	CA-C-N	6.67	131.87	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	285	GLU	CA-C-N	6.67	131.87	117.20
1	B	285	GLU	CA-C-N	6.66	131.86	117.20
1	C	285	GLU	CA-C-N	6.66	131.85	117.20
1	D	20	GLU	CG-CD-OE1	6.53	131.35	118.30
1	A	20	GLU	CG-CD-OE1	6.52	131.35	118.30
1	B	20	GLU	CG-CD-OE1	6.52	131.34	118.30
1	C	20	GLU	CG-CD-OE1	6.52	131.34	118.30
1	A	2430	VAL	CB-CA-C	-6.47	99.11	111.40
1	C	2430	VAL	CB-CA-C	-6.46	99.13	111.40
1	B	2430	VAL	CB-CA-C	-6.45	99.14	111.40
1	C	303	PHE	CB-CG-CD2	-6.27	116.41	120.80
1	D	303	PHE	CB-CG-CD2	-6.27	116.41	120.80
1	D	2429	ASN	CB-CA-C	-6.26	97.88	110.40
1	A	303	PHE	CB-CG-CD2	-6.22	116.45	120.80
1	B	303	PHE	CB-CG-CD2	-6.21	116.45	120.80
1	D	2428	LEU	CA-C-O	6.09	132.88	120.10
1	B	477	LEU	CA-CB-CG	5.93	128.94	115.30
1	D	477	LEU	CA-CB-CG	5.92	128.90	115.30
1	B	2571	LEU	CA-CB-CG	5.91	128.88	115.30
1	D	2571	LEU	CA-CB-CG	5.89	128.85	115.30
1	A	2571	LEU	CA-CB-CG	5.86	128.79	115.30
1	C	2571	LEU	CA-CB-CG	5.84	128.74	115.30
1	D	2429	ASN	N-CA-CB	-5.83	100.11	110.60
1	C	285	GLU	N-CA-C	5.78	126.60	111.00
1	D	303	PHE	CD1-CG-CD2	5.76	125.79	118.30
1	A	285	GLU	N-CA-C	5.76	126.56	111.00
1	B	285	GLU	N-CA-C	5.75	126.53	111.00
1	D	285	GLU	N-CA-C	5.75	126.51	111.00
1	A	303	PHE	CD1-CG-CD2	5.73	125.75	118.30
1	C	303	PHE	CD1-CG-CD2	5.73	125.75	118.30
1	A	20	GLU	CB-CG-CD	5.73	129.67	114.20
1	B	20	GLU	CB-CG-CD	5.73	129.66	114.20
1	D	20	GLU	CB-CG-CD	5.72	129.64	114.20
1	D	2427	LEU	C-N-CA	5.72	136.00	121.70
1	B	303	PHE	CD1-CG-CD2	5.72	125.73	118.30
1	B	2437	ASN	N-CA-CB	5.71	120.88	110.60
1	C	20	GLU	CB-CG-CD	5.70	129.58	114.20
1	A	2437	ASN	N-CA-CB	5.68	120.82	110.60
1	C	477	LEU	CA-CB-CG	5.67	128.35	115.30
1	A	477	LEU	CA-CB-CG	5.66	128.31	115.30
1	B	176	VAL	N-CA-C	-5.65	95.75	111.00
1	D	176	VAL	N-CA-C	-5.65	95.75	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	2437	ASN	N-CA-CB	5.64	120.75	110.60
1	D	2437	ASN	N-CA-CB	5.63	120.74	110.60
1	A	176	VAL	N-CA-C	-5.59	95.91	111.00
1	C	176	VAL	N-CA-C	-5.58	95.94	111.00
1	D	2430	VAL	CB-CA-C	-5.47	101.01	111.40
1	B	176	VAL	N-CA-CB	5.24	123.03	111.50
1	D	176	VAL	N-CA-CB	5.24	123.03	111.50
1	B	176	VAL	CG1-CB-CG2	-5.23	102.53	110.90
1	D	176	VAL	CG1-CB-CG2	-5.23	102.53	110.90
1	A	176	VAL	CG1-CB-CG2	-5.23	102.53	110.90
1	C	176	VAL	CG1-CB-CG2	-5.20	102.58	110.90
1	A	176	VAL	N-CA-CB	5.19	122.91	111.50
1	C	176	VAL	N-CA-CB	5.17	122.89	111.50
1	C	2514	LEU	CA-CB-CG	5.16	127.16	115.30
1	A	2514	LEU	CA-CB-CG	5.14	127.13	115.30
1	B	20	GLU	CG-CD-OE2	5.10	128.50	118.30
1	B	2514	LEU	CA-CB-CG	5.10	127.03	115.30
1	D	416	LEU	CA-CB-CG	5.10	127.03	115.30
1	A	20	GLU	CG-CD-OE2	5.09	128.49	118.30
1	D	20	GLU	CG-CD-OE2	5.09	128.49	118.30
1	D	2514	LEU	CA-CB-CG	5.09	127.01	115.30
1	B	2429	ASN	CB-CA-C	-5.09	100.23	110.40
1	C	20	GLU	CG-CD-OE2	5.08	128.47	118.30
1	B	416	LEU	CA-CB-CG	5.08	126.98	115.30
1	C	2429	ASN	CB-CA-C	-5.04	100.33	110.40
1	C	416	LEU	CA-CB-CG	5.02	126.85	115.30
1	A	2429	ASN	CB-CA-C	-5.02	100.36	110.40
1	A	416	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (32) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	12	GLY	Peptide
1	A	136	LYS	Peptide
1	A	163	ILE	Peptide
1	A	169	LEU	Peptide
1	A	240	VAL	Peptide
1	A	374	THR	Peptide
1	A	415	MET	Peptide
1	A	431	ALA	Peptide
1	B	12	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	B	136	LYS	Peptide
1	B	163	ILE	Peptide
1	B	169	LEU	Peptide
1	B	240	VAL	Peptide
1	B	374	THR	Peptide
1	B	415	MET	Peptide
1	B	431	ALA	Peptide
1	C	12	GLY	Peptide
1	C	136	LYS	Peptide
1	C	163	ILE	Peptide
1	C	169	LEU	Peptide
1	C	240	VAL	Peptide
1	C	374	THR	Peptide
1	C	415	MET	Peptide
1	C	431	ALA	Peptide
1	D	12	GLY	Peptide
1	D	136	LYS	Peptide
1	D	163	ILE	Peptide
1	D	169	LEU	Peptide
1	D	240	VAL	Peptide
1	D	374	THR	Peptide
1	D	415	MET	Peptide
1	D	431	ALA	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	8368	0	6997	999	0
1	B	8368	0	6997	1004	0
1	C	8368	0	6997	1004	0
1	D	8368	0	6997	1000	0
All	All	33472	0	27988	3819	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 62.

All (3819) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:303:PHE:CG	1:D:303:PHE:CD1	1.75	1.72
1:B:303:PHE:CD1	1:B:303:PHE:CG	1.75	1.71
1:D:117:TYR:CE1	1:D:117:TYR:CZ	1.80	1.70
1:A:117:TYR:CE2	1:A:117:TYR:CZ	1.78	1.70
1:B:18:TYR:CZ	1:B:18:TYR:CE2	1.80	1.69
1:C:117:TYR:CE1	1:C:117:TYR:CZ	1.80	1.68
1:C:117:TYR:CZ	1:C:117:TYR:CE2	1.79	1.68
1:C:303:PHE:CG	1:C:303:PHE:CD2	1.76	1.68
1:B:117:TYR:CZ	1:B:117:TYR:CE2	1.79	1.67
1:C:303:PHE:CG	1:C:303:PHE:CD1	1.75	1.67
1:C:18:TYR:CE1	1:C:18:TYR:CZ	1.80	1.66
1:A:303:PHE:CD1	1:A:303:PHE:CG	1.75	1.66
1:D:18:TYR:CZ	1:D:18:TYR:CE2	1.80	1.65
1:D:117:TYR:CE2	1:D:117:TYR:CZ	1.79	1.65
1:D:303:PHE:CD2	1:D:303:PHE:CG	1.76	1.65
1:B:18:TYR:CZ	1:B:18:TYR:CE1	1.80	1.64
1:A:18:TYR:CZ	1:A:18:TYR:CE2	1.80	1.64
1:A:303:PHE:CG	1:A:303:PHE:CD2	1.76	1.64
1:B:117:TYR:CE1	1:B:117:TYR:CZ	1.80	1.62
1:A:18:TYR:CZ	1:A:18:TYR:CE1	1.80	1.62
1:C:18:TYR:CE2	1:C:18:TYR:CZ	1.80	1.61
1:B:303:PHE:CD2	1:B:303:PHE:CG	1.76	1.61
1:A:117:TYR:CZ	1:A:117:TYR:CE1	1.80	1.60
1:D:18:TYR:CZ	1:D:18:TYR:CE1	1.80	1.59
1:D:2428:LEU:C	1:D:2428:LEU:CA	1.75	1.53
1:A:117:TYR:CD1	1:A:117:TYR:CE1	2.01	1.48
1:B:117:TYR:CE1	1:B:117:TYR:CD1	2.01	1.48
1:A:2586:PHE:CD2	1:B:2586:PHE:CZ	1.99	1.48
1:D:117:TYR:CE1	1:D:117:TYR:CD1	2.01	1.48
1:C:2586:PHE:CD2	1:D:2586:PHE:CZ	2.00	1.47
1:C:117:TYR:CE1	1:C:117:TYR:CD1	2.01	1.47
1:D:117:TYR:CE2	1:D:117:TYR:CD2	2.04	1.45
1:A:117:TYR:CD2	1:A:117:TYR:CE2	2.04	1.43
1:B:117:TYR:CE2	1:B:117:TYR:CD2	2.04	1.43
1:C:117:TYR:CD2	1:C:117:TYR:CE2	2.04	1.43
1:A:2586:PHE:CZ	1:D:2586:PHE:CD2	2.07	1.43
1:B:18:TYR:CD1	1:B:18:TYR:CE1	2.09	1.41
1:C:18:TYR:CE1	1:C:18:TYR:CD1	2.09	1.41
1:D:117:TYR:CD1	1:D:176:VAL:HB	1.55	1.40
1:A:117:TYR:CD1	1:A:176:VAL:HB	1.55	1.40
1:C:117:TYR:CD1	1:C:176:VAL:HB	1.55	1.40
1:D:303:PHE:CZ	1:D:303:PHE:CE1	2.11	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:117:TYR:CD1	1:B:176:VAL:HB	1.55	1.39
1:B:2586:PHE:CD2	1:C:2586:PHE:CZ	2.07	1.39
1:B:117:TYR:CE2	1:B:176:VAL:HA	1.58	1.39
1:D:117:TYR:CE2	1:D:176:VAL:HA	1.58	1.38
1:A:303:PHE:CE1	1:A:303:PHE:CZ	2.11	1.38
1:A:18:TYR:CD1	1:A:18:TYR:CE1	2.09	1.38
1:C:117:TYR:CE2	1:C:176:VAL:HA	1.58	1.38
1:C:303:PHE:CZ	1:C:303:PHE:CE1	2.11	1.38
1:D:18:TYR:CD1	1:D:18:TYR:CE1	2.09	1.38
1:A:117:TYR:CE2	1:A:176:VAL:HA	1.58	1.38
1:B:303:PHE:CE1	1:B:303:PHE:CZ	2.11	1.37
1:C:303:PHE:CZ	1:C:303:PHE:CE2	2.12	1.37
1:A:303:PHE:CZ	1:A:303:PHE:CE2	2.12	1.37
1:C:2586:PHE:CE2	1:D:2586:PHE:CZ	2.13	1.36
1:D:303:PHE:CZ	1:D:303:PHE:CE2	2.12	1.35
1:B:303:PHE:CE2	1:B:303:PHE:CZ	2.12	1.35
1:D:18:TYR:CE2	1:D:18:TYR:CD2	2.15	1.35
1:A:18:TYR:CD2	1:A:18:TYR:CE2	2.15	1.35
1:A:2586:PHE:CE2	1:B:2586:PHE:CZ	2.13	1.34
1:B:18:TYR:CD2	1:B:18:TYR:CE2	2.15	1.33
1:C:18:TYR:CE2	1:C:18:TYR:CD2	2.15	1.32
1:C:303:PHE:CE1	1:C:303:PHE:CD1	2.20	1.29
1:A:2586:PHE:CZ	1:D:2586:PHE:CE2	2.20	1.29
1:B:2586:PHE:CE2	1:C:2586:PHE:CZ	2.20	1.28
1:A:303:PHE:CE1	1:A:303:PHE:CD1	2.21	1.28
1:C:2586:PHE:CD2	1:D:2586:PHE:HZ	1.41	1.28
1:D:303:PHE:CE1	1:D:303:PHE:CD1	2.21	1.27
1:D:303:PHE:CD2	1:D:303:PHE:CE2	2.22	1.27
1:B:303:PHE:CD1	1:B:303:PHE:CE1	2.21	1.27
1:B:303:PHE:CD2	1:B:303:PHE:CE2	2.22	1.27
1:A:2586:PHE:CD2	1:B:2586:PHE:HZ	1.41	1.26
1:C:303:PHE:CE2	1:C:303:PHE:CD2	2.22	1.25
1:A:303:PHE:CE2	1:A:303:PHE:CD2	2.22	1.25
1:D:285:GLU:HA	1:D:303:PHE:CD1	1.72	1.25
1:A:285:GLU:HA	1:A:303:PHE:CD1	1.72	1.24
1:C:285:GLU:HA	1:C:303:PHE:CD1	1.71	1.24
1:D:285:GLU:HA	1:D:303:PHE:CE1	1.73	1.23
1:A:117:TYR:CE1	1:A:176:VAL:HB	1.73	1.23
1:C:117:TYR:CE1	1:C:176:VAL:HB	1.73	1.23
1:A:2428:LEU:HG	1:A:2429:ASN:OD1	1.35	1.23
1:B:285:GLU:HA	1:B:303:PHE:CD1	1.72	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:117:TYR:CE1	1:B:176:VAL:HB	1.73	1.23
1:D:117:TYR:CE1	1:D:176:VAL:HB	1.73	1.22
1:C:2428:LEU:HG	1:C:2429:ASN:OD1	1.35	1.22
1:A:285:GLU:HA	1:A:303:PHE:CE1	1.74	1.22
1:B:285:GLU:HA	1:B:303:PHE:CE1	1.73	1.22
1:C:285:GLU:HA	1:C:303:PHE:CE1	1.74	1.21
1:B:2586:PHE:CD2	1:C:2586:PHE:HZ	1.52	1.19
1:A:2437:ASN:CB	1:A:2592:THR:HG21	1.74	1.18
1:B:2428:LEU:HG	1:B:2429:ASN:OD1	1.42	1.18
1:C:2437:ASN:CB	1:C:2592:THR:HG21	1.73	1.17
1:B:2437:ASN:CB	1:B:2592:THR:HG21	1.75	1.17
1:C:2586:PHE:CE2	1:D:2586:PHE:CE2	2.34	1.15
1:B:18:TYR:CE2	1:B:20:GLU:CD	2.20	1.15
1:D:18:TYR:CE2	1:D:20:GLU:CD	2.20	1.15
1:C:18:TYR:CE2	1:C:20:GLU:CD	2.20	1.15
1:A:18:TYR:CE2	1:A:20:GLU:CD	2.20	1.15
1:A:2586:PHE:CE2	1:B:2586:PHE:CE2	2.34	1.14
1:C:2325:ILE:HG22	1:C:2329:LYS:NZ	1.64	1.13
1:D:285:GLU:C	1:D:303:PHE:CD2	2.23	1.12
1:A:2586:PHE:HE2	1:B:2586:PHE:CE2	1.66	1.13
1:C:285:GLU:C	1:C:303:PHE:CD2	2.22	1.12
1:B:285:GLU:C	1:B:303:PHE:CD2	2.23	1.12
1:D:117:TYR:CE2	1:D:176:VAL:CA	2.33	1.12
1:C:18:TYR:CD2	1:C:20:GLU:CD	2.23	1.12
1:D:18:TYR:CD2	1:D:20:GLU:CD	2.23	1.12
1:A:2586:PHE:HZ	1:D:2586:PHE:CD2	1.52	1.12
1:C:2586:PHE:CE2	1:D:2586:PHE:HZ	1.57	1.12
1:A:117:TYR:CE2	1:A:176:VAL:CA	2.33	1.11
1:B:18:TYR:CD2	1:B:20:GLU:CD	2.23	1.11
1:A:18:TYR:CD2	1:A:20:GLU:CD	2.23	1.11
1:C:117:TYR:CE2	1:C:176:VAL:CA	2.33	1.11
1:A:285:GLU:C	1:A:303:PHE:CD2	2.22	1.11
1:B:285:GLU:C	1:B:303:PHE:CE2	2.25	1.10
1:B:117:TYR:CE2	1:B:176:VAL:CA	2.33	1.10
1:D:2425:GLU:OE2	1:D:2431:ILE:HG23	1.50	1.10
1:C:285:GLU:C	1:C:303:PHE:CE2	2.25	1.10
1:D:18:TYR:CE1	1:D:20:GLU:CG	2.35	1.10
1:D:2437:ASN:CB	1:D:2592:THR:HG21	1.81	1.10
1:A:18:TYR:CE1	1:A:20:GLU:CG	2.35	1.10
1:C:285:GLU:C	1:C:303:PHE:CZ	2.25	1.10
1:A:2586:PHE:CE2	1:D:2586:PHE:CE2	2.40	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2439:ARG:O	1:A:2441:ILE:N	1.84	1.10
1:A:285:GLU:C	1:A:303:PHE:CZ	2.25	1.10
1:A:2586:PHE:CE2	1:B:2586:PHE:HZ	1.57	1.10
1:D:2325:ILE:HG22	1:D:2329:LYS:NZ	1.67	1.09
1:C:18:TYR:CZ	1:C:20:GLU:CD	2.25	1.09
1:A:285:GLU:C	1:A:303:PHE:CE2	2.25	1.09
1:D:285:GLU:C	1:D:303:PHE:CZ	2.25	1.09
1:B:18:TYR:CE1	1:B:20:GLU:CG	2.35	1.09
1:C:18:TYR:CE1	1:C:20:GLU:CG	2.35	1.09
1:A:18:TYR:CZ	1:A:20:GLU:CD	2.25	1.09
1:C:2586:PHE:HE2	1:D:2586:PHE:CE2	1.66	1.09
1:D:286:VAL:N	1:D:303:PHE:CE2	2.21	1.09
1:B:2586:PHE:CE2	1:C:2586:PHE:CE2	2.40	1.09
1:D:2439:ARG:O	1:D:2441:ILE:N	1.86	1.09
1:B:285:GLU:C	1:B:303:PHE:CZ	2.25	1.08
1:B:18:TYR:CZ	1:B:20:GLU:CD	2.25	1.08
1:A:286:VAL:N	1:A:303:PHE:CE2	2.21	1.08
1:D:18:TYR:CD1	1:D:20:GLU:CG	2.36	1.08
1:D:18:TYR:CZ	1:D:20:GLU:CD	2.25	1.08
1:D:285:GLU:C	1:D:303:PHE:CE2	2.25	1.08
1:C:286:VAL:N	1:C:303:PHE:CE2	2.21	1.08
1:A:18:TYR:CD1	1:A:20:GLU:CG	2.36	1.08
1:C:2439:ARG:O	1:C:2441:ILE:N	1.84	1.08
1:C:18:TYR:CD1	1:C:20:GLU:CG	2.36	1.08
1:D:285:GLU:CA	1:D:303:PHE:CE1	2.37	1.08
1:D:117:TYR:CD2	1:D:176:VAL:CA	2.37	1.08
1:A:117:TYR:CD2	1:A:176:VAL:CA	2.37	1.07
1:A:117:TYR:CZ	1:A:176:VAL:CA	2.37	1.07
1:C:117:TYR:CD2	1:C:176:VAL:CA	2.37	1.07
1:B:117:TYR:CD2	1:B:176:VAL:CA	2.37	1.07
1:B:2439:ARG:O	1:B:2441:ILE:N	1.85	1.07
1:D:2437:ASN:HB3	1:D:2592:THR:HG21	1.11	1.07
1:D:117:TYR:CZ	1:D:176:VAL:CA	2.37	1.07
1:A:285:GLU:CA	1:A:303:PHE:CE1	2.37	1.07
1:B:286:VAL:N	1:B:303:PHE:CE2	2.21	1.07
1:B:285:GLU:CA	1:B:303:PHE:CE1	2.37	1.07
1:C:285:GLU:CA	1:C:303:PHE:CE1	2.37	1.07
1:D:18:TYR:CD1	1:D:20:GLU:CD	2.28	1.07
1:B:2325:ILE:HG22	1:B:2329:LYS:NZ	1.67	1.07
1:C:18:TYR:CD1	1:C:20:GLU:CD	2.28	1.06
1:B:2586:PHE:CE2	1:C:2586:PHE:HZ	1.64	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:18:TYR:CD1	1:B:20:GLU:CG	2.36	1.06
1:A:285:GLU:C	1:A:303:PHE:CE1	2.29	1.06
1:A:18:TYR:CD1	1:A:20:GLU:CD	2.28	1.06
1:A:2437:ASN:HB3	1:A:2592:THR:CG2	1.85	1.06
1:C:2437:ASN:HB3	1:C:2592:THR:CG2	1.84	1.06
1:C:117:TYR:CZ	1:C:176:VAL:CA	2.37	1.06
1:B:117:TYR:CZ	1:B:176:VAL:CA	2.37	1.06
1:D:285:GLU:C	1:D:303:PHE:CE1	2.29	1.06
1:B:2586:PHE:HE2	1:C:2586:PHE:CE2	1.74	1.06
1:B:2437:ASN:HB3	1:B:2592:THR:CG2	1.84	1.06
1:B:285:GLU:C	1:B:303:PHE:CE1	2.29	1.05
1:B:18:TYR:CD1	1:B:20:GLU:CD	2.28	1.05
1:C:285:GLU:C	1:C:303:PHE:CE1	2.29	1.05
1:A:285:GLU:C	1:A:303:PHE:CD1	2.30	1.05
1:C:2437:ASN:CB	1:C:2592:THR:CG2	2.34	1.05
1:C:18:TYR:CE1	1:C:20:GLU:CD	2.30	1.05
1:A:18:TYR:CE1	1:A:20:GLU:CD	2.30	1.05
1:D:18:TYR:CZ	1:D:20:GLU:CG	2.40	1.05
1:D:285:GLU:C	1:D:303:PHE:CD1	2.30	1.05
1:B:285:GLU:C	1:B:303:PHE:CD1	2.29	1.05
1:D:18:TYR:CE1	1:D:20:GLU:CD	2.30	1.05
1:A:2325:ILE:HG22	1:A:2329:LYS:NZ	1.70	1.05
1:B:18:TYR:CE1	1:B:20:GLU:CD	2.30	1.04
1:D:2434:VAL:HG22	1:D:2593:PHE:CZ	1.92	1.04
1:B:18:TYR:CZ	1:B:20:GLU:CG	2.40	1.04
1:C:285:GLU:C	1:C:303:PHE:CD1	2.30	1.04
1:C:18:TYR:CZ	1:C:20:GLU:CG	2.40	1.04
1:A:18:TYR:CZ	1:A:20:GLU:CG	2.40	1.04
1:B:18:TYR:CE2	1:B:20:GLU:CG	2.42	1.03
1:C:117:TYR:CE1	1:C:176:VAL:CB	2.41	1.03
1:C:18:TYR:CG	1:C:20:GLU:CD	2.32	1.03
1:A:2431:ILE:H	1:A:2431:ILE:HD12	1.23	1.03
1:A:2437:ASN:CB	1:A:2592:THR:CG2	2.35	1.03
1:B:2431:ILE:HD12	1:B:2431:ILE:H	1.23	1.03
1:C:117:TYR:CD1	1:C:176:VAL:CB	2.42	1.03
1:C:285:GLU:C	1:C:303:PHE:CG	2.32	1.03
1:A:18:TYR:CE2	1:A:20:GLU:CG	2.42	1.03
1:D:285:GLU:C	1:D:303:PHE:CG	2.32	1.03
1:A:285:GLU:C	1:A:303:PHE:CG	2.32	1.03
1:D:18:TYR:CD2	1:D:20:GLU:CG	2.42	1.03
1:A:18:TYR:CD2	1:A:20:GLU:CG	2.42	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2437:ASN:CB	1:B:2592:THR:CG2	2.35	1.03
1:A:2586:PHE:CE2	1:D:2586:PHE:HE2	1.74	1.03
1:B:18:TYR:CD2	1:B:20:GLU:CG	2.42	1.03
1:B:117:TYR:CD1	1:B:176:VAL:CB	2.42	1.03
1:C:18:TYR:CD2	1:C:20:GLU:CG	2.42	1.03
1:A:2586:PHE:HZ	1:D:2586:PHE:CE2	1.64	1.03
1:D:18:TYR:CE2	1:D:20:GLU:CG	2.42	1.03
1:D:117:TYR:CD1	1:D:176:VAL:CB	2.42	1.02
1:A:117:TYR:CD1	1:A:176:VAL:CB	2.42	1.02
1:A:117:TYR:CE1	1:A:176:VAL:CB	2.41	1.02
1:A:18:TYR:CG	1:A:20:GLU:CD	2.32	1.02
1:B:285:GLU:C	1:B:303:PHE:CG	2.32	1.02
1:D:117:TYR:CE1	1:D:176:VAL:CB	2.41	1.02
1:B:18:TYR:CG	1:B:20:GLU:CD	2.32	1.02
1:C:18:TYR:CE2	1:C:20:GLU:CG	2.42	1.02
1:D:18:TYR:CG	1:D:20:GLU:CD	2.32	1.02
1:D:2425:GLU:OE2	1:D:2431:ILE:CG2	2.07	1.02
1:B:2437:ASN:HB3	1:B:2592:THR:HG21	1.02	1.02
1:B:117:TYR:CE1	1:B:176:VAL:CB	2.41	1.02
1:A:2437:ASN:HB3	1:A:2592:THR:HG21	1.02	1.01
1:C:2586:PHE:HD2	1:D:2586:PHE:CZ	1.78	1.01
1:A:285:GLU:CA	1:A:303:PHE:CZ	2.44	1.01
1:C:2437:ASN:HB3	1:C:2592:THR:HG21	1.02	1.01
1:D:285:GLU:CA	1:D:303:PHE:CZ	2.44	1.01
1:C:373:THR:H	1:C:388:VAL:HG21	1.26	1.01
1:A:373:THR:H	1:A:388:VAL:HG21	1.25	1.00
1:B:18:TYR:CG	1:B:20:GLU:CG	2.44	1.00
1:C:18:TYR:CG	1:C:20:GLU:CG	2.44	1.00
1:D:373:THR:H	1:D:388:VAL:HG21	1.26	1.00
1:B:285:GLU:CA	1:B:303:PHE:CZ	2.44	1.00
1:D:18:TYR:CG	1:D:20:GLU:CG	2.45	1.00
1:A:18:TYR:CG	1:A:20:GLU:CG	2.44	0.99
1:D:285:GLU:CA	1:D:303:PHE:CE2	2.46	0.99
1:C:285:GLU:CA	1:C:303:PHE:CZ	2.44	0.99
1:D:2431:ILE:H	1:D:2431:ILE:HD12	1.25	0.99
1:C:2431:ILE:HD12	1:C:2431:ILE:H	1.23	0.99
1:A:2586:PHE:HD2	1:B:2586:PHE:CZ	1.78	0.99
1:A:285:GLU:CA	1:A:303:PHE:CE2	2.46	0.99
1:A:117:TYR:CE2	1:A:176:VAL:CB	2.46	0.99
1:B:117:TYR:CD2	1:B:176:VAL:CB	2.46	0.99
1:D:18:TYR:CD1	1:D:20:GLU:HG3	1.98	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:117:TYR:CE1	1:A:176:VAL:CA	2.46	0.98
1:C:285:GLU:CA	1:C:303:PHE:CD1	2.46	0.98
1:D:117:TYR:CD2	1:D:176:VAL:CB	2.46	0.98
1:C:285:GLU:CA	1:C:303:PHE:CE2	2.46	0.98
1:B:117:TYR:CE1	1:B:176:VAL:CA	2.46	0.98
1:C:2434:VAL:HG22	1:C:2593:PHE:CZ	1.99	0.98
1:C:117:TYR:CZ	1:C:176:VAL:CB	2.47	0.98
1:A:117:TYR:CD2	1:A:176:VAL:CB	2.46	0.98
1:B:117:TYR:CE2	1:B:176:VAL:CB	2.46	0.98
1:D:117:TYR:CE1	1:D:176:VAL:CA	2.46	0.98
1:A:117:TYR:CZ	1:A:176:VAL:CB	2.46	0.98
1:D:18:TYR:CE1	1:D:20:GLU:HG2	1.99	0.98
1:A:2434:VAL:HG22	1:A:2593:PHE:CZ	1.98	0.98
1:C:117:TYR:CD2	1:C:176:VAL:CB	2.46	0.98
1:D:285:GLU:CA	1:D:303:PHE:CD1	2.46	0.98
1:B:285:GLU:CA	1:B:303:PHE:CD1	2.46	0.98
1:B:285:GLU:CA	1:B:303:PHE:CE2	2.46	0.97
1:C:117:TYR:CE1	1:C:176:VAL:CA	2.46	0.97
1:C:18:TYR:CE1	1:C:20:GLU:HG2	1.99	0.97
1:D:2437:ASN:HB3	1:D:2592:THR:CG2	1.93	0.97
1:C:117:TYR:CE2	1:C:176:VAL:CB	2.46	0.97
1:D:117:TYR:CE2	1:D:176:VAL:CB	2.46	0.97
1:C:18:TYR:CD1	1:C:20:GLU:HG3	1.98	0.97
1:A:18:TYR:CE1	1:A:20:GLU:HG2	1.99	0.97
1:C:2430:VAL:O	1:C:2433:SER:OG	1.82	0.97
1:B:18:TYR:CD1	1:B:20:GLU:HG3	1.98	0.97
1:D:117:TYR:CZ	1:D:176:VAL:CB	2.47	0.97
1:B:18:TYR:CE1	1:B:20:GLU:HG2	1.99	0.97
1:B:117:TYR:CZ	1:B:176:VAL:CB	2.46	0.97
1:A:285:GLU:CA	1:A:303:PHE:CD1	2.46	0.97
1:A:2430:VAL:O	1:A:2433:SER:OG	1.82	0.97
1:A:18:TYR:CD1	1:A:20:GLU:HG3	1.98	0.96
1:C:117:TYR:CD1	1:C:176:VAL:CA	2.49	0.96
1:D:117:TYR:CD1	1:D:176:VAL:CA	2.49	0.96
1:B:117:TYR:CG	1:B:176:VAL:CA	2.49	0.96
1:D:117:TYR:CG	1:D:176:VAL:CA	2.49	0.96
1:B:373:THR:H	1:B:388:VAL:HG21	1.27	0.96
1:C:117:TYR:CG	1:C:176:VAL:CA	2.49	0.96
1:B:2430:VAL:O	1:B:2433:SER:OG	1.82	0.96
1:D:2437:ASN:CB	1:D:2592:THR:CG2	2.44	0.96
1:D:2430:VAL:O	1:D:2433:SER:OG	1.82	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:242:LEU:HD13	1:A:282:TRP:HA	1.48	0.95
1:D:242:LEU:HD13	1:D:282:TRP:HA	1.47	0.95
1:A:117:TYR:CD1	1:A:176:VAL:CA	2.49	0.95
1:A:117:TYR:CG	1:A:176:VAL:CA	2.49	0.95
1:B:2434:VAL:HG22	1:B:2593:PHE:CZ	2.01	0.95
1:B:242:LEU:HD13	1:B:282:TRP:HA	1.47	0.95
1:D:117:TYR:CG	1:D:176:VAL:CB	2.50	0.94
1:C:117:TYR:CG	1:C:176:VAL:CB	2.50	0.94
1:B:117:TYR:CD1	1:B:176:VAL:CA	2.49	0.94
1:C:285:GLU:O	1:C:303:PHE:CD1	2.21	0.94
1:C:2586:PHE:HE2	1:D:2586:PHE:HE2	1.10	0.94
1:A:117:TYR:CG	1:A:176:VAL:CB	2.50	0.94
1:B:117:TYR:CG	1:B:176:VAL:CB	2.50	0.94
1:B:285:GLU:O	1:B:303:PHE:CD1	2.21	0.93
1:D:285:GLU:O	1:D:303:PHE:CD1	2.21	0.93
1:B:415:MET:HA	1:B:417:LYS:HE2	1.49	0.93
1:C:242:LEU:HD13	1:C:282:TRP:HA	1.48	0.93
1:A:2586:PHE:HE2	1:B:2586:PHE:HE2	1.10	0.93
1:A:2607:LEU:C	1:A:2608:LYS:CA	2.37	0.93
1:A:285:GLU:O	1:A:303:PHE:CD1	2.21	0.92
1:C:2607:LEU:C	1:C:2608:LYS:CA	2.37	0.92
1:D:2607:LEU:C	1:D:2608:LYS:CA	2.37	0.92
1:B:2607:LEU:C	1:B:2608:LYS:CA	2.37	0.92
1:D:415:MET:HA	1:D:417:LYS:HE2	1.49	0.92
1:C:582:GLN:C	1:C:583:LYS:CA	2.39	0.91
1:B:2586:PHE:HD2	1:C:2586:PHE:CZ	1.87	0.91
1:D:582:GLN:C	1:D:583:LYS:CA	2.39	0.91
1:B:286:VAL:N	1:B:303:PHE:CD2	2.39	0.91
1:C:222:LEU:HB3	1:C:292:CYS:HB2	1.53	0.91
1:A:582:GLN:C	1:A:583:LYS:CA	2.39	0.91
1:D:286:VAL:N	1:D:303:PHE:CD2	2.39	0.90
1:B:222:LEU:HB3	1:B:292:CYS:HB2	1.52	0.90
1:C:415:MET:HA	1:C:417:LYS:HE2	1.51	0.90
1:D:2428:LEU:HG	1:D:2429:ASN:H	1.34	0.90
1:D:2428:LEU:HG	1:D:2429:ASN:N	1.87	0.90
1:B:582:GLN:C	1:B:583:LYS:CA	2.39	0.90
1:A:286:VAL:N	1:A:303:PHE:CD2	2.40	0.90
1:B:312:HIS:ND1	1:B:358:VAL:O	2.05	0.89
1:A:312:HIS:ND1	1:A:358:VAL:O	2.05	0.89
1:D:285:GLU:O	1:D:303:PHE:CE1	2.26	0.89
1:A:415:MET:HA	1:A:417:LYS:HE2	1.51	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:286:VAL:N	1:C:303:PHE:CD2	2.40	0.89
1:D:2428:LEU:C	1:D:2431:ILE:HD13	1.91	0.89
1:D:312:HIS:ND1	1:D:358:VAL:O	2.05	0.89
1:D:222:LEU:HB3	1:D:292:CYS:HB2	1.51	0.89
1:B:130:LYS:HE3	1:B:152:ASP:HA	1.55	0.89
1:C:312:HIS:ND1	1:C:358:VAL:O	2.05	0.89
1:C:285:GLU:O	1:C:303:PHE:CE1	2.26	0.88
1:A:285:GLU:O	1:A:303:PHE:CE1	2.27	0.88
1:D:2428:LEU:HD21	1:D:2429:ASN:HD21	1.37	0.88
1:D:130:LYS:HE3	1:D:152:ASP:HA	1.55	0.88
1:A:2552:VAL:HA	1:A:2553:LEU:HB2	1.56	0.88
1:D:2434:VAL:HG22	1:D:2593:PHE:HZ	1.36	0.88
1:B:117:TYR:CD2	1:B:176:VAL:HA	2.09	0.88
1:B:511:ARG:NH2	1:B:569:LYS:O	2.07	0.88
1:C:2552:VAL:HA	1:C:2553:LEU:HB2	1.56	0.88
1:B:285:GLU:O	1:B:303:PHE:CE1	2.26	0.87
1:D:2432:LYS:O	1:D:2435:THR:HG23	1.74	0.87
1:D:511:ARG:NH2	1:D:569:LYS:O	2.07	0.87
1:D:2552:VAL:HA	1:D:2553:LEU:HB2	1.56	0.87
1:A:222:LEU:HB3	1:A:292:CYS:HB2	1.53	0.87
1:D:285:GLU:CA	1:D:303:PHE:CD2	2.58	0.87
1:A:285:GLU:CA	1:A:303:PHE:CD2	2.58	0.87
1:A:16:SER:HA	1:A:58:PHE:H	1.39	0.87
1:B:2552:VAL:HA	1:B:2553:LEU:HB2	1.56	0.87
1:B:285:GLU:CA	1:B:303:PHE:CD2	2.58	0.87
1:C:285:GLU:CA	1:C:303:PHE:CD2	2.58	0.87
1:B:2586:PHE:HE2	1:C:2586:PHE:HE2	1.17	0.87
1:B:2468:ILE:C	1:B:2469:LEU:CA	2.43	0.87
1:D:16:SER:HA	1:D:58:PHE:H	1.40	0.86
1:C:130:LYS:HE3	1:C:152:ASP:HA	1.57	0.86
1:A:2381:ARG:C	1:A:2382:GLY:CA	2.44	0.86
1:C:2381:ARG:C	1:C:2382:GLY:CA	2.44	0.86
1:A:130:LYS:HE3	1:A:152:ASP:HA	1.57	0.86
1:C:2468:ILE:C	1:C:2469:LEU:CA	2.43	0.86
1:D:2468:ILE:C	1:D:2469:LEU:CA	2.43	0.86
1:B:16:SER:HA	1:B:58:PHE:H	1.40	0.86
1:B:285:GLU:CA	1:B:285:GLU:C	2.44	0.86
1:D:2429:ASN:OD1	1:D:2430:VAL:N	2.07	0.86
1:B:2381:ARG:C	1:B:2382:GLY:CA	2.44	0.86
1:C:285:GLU:CA	1:C:285:GLU:C	2.44	0.86
1:A:2586:PHE:HE2	1:D:2586:PHE:HE2	1.17	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:285:GLU:C	1:D:285:GLU:CA	2.44	0.86
1:A:117:TYR:CD2	1:A:176:VAL:HA	2.10	0.86
1:D:2381:ARG:C	1:D:2382:GLY:CA	2.44	0.86
1:C:117:TYR:CD2	1:C:176:VAL:HA	2.10	0.85
1:C:285:GLU:N	1:C:303:PHE:CZ	2.44	0.85
1:C:285:GLU:CA	1:C:303:PHE:CG	2.59	0.85
1:A:285:GLU:C	1:A:285:GLU:CA	2.44	0.85
1:C:2434:VAL:HG22	1:C:2593:PHE:HZ	1.38	0.85
1:A:285:GLU:N	1:A:303:PHE:CZ	2.44	0.85
1:A:2586:PHE:CZ	1:D:2586:PHE:HD2	1.87	0.85
1:D:285:GLU:CA	1:D:303:PHE:CG	2.60	0.85
1:B:285:GLU:N	1:B:303:PHE:CZ	2.44	0.85
1:A:2468:ILE:C	1:A:2469:LEU:CA	2.43	0.85
1:A:2434:VAL:HG22	1:A:2593:PHE:HZ	1.37	0.85
1:B:177:VAL:HG12	1:B:178:ILE:HD12	1.58	0.85
1:D:2430:VAL:N	1:D:2431:ILE:HD12	1.91	0.85
1:D:117:TYR:CD2	1:D:176:VAL:HA	2.09	0.85
1:D:177:VAL:HG12	1:D:178:ILE:HD12	1.58	0.85
1:B:2439:ARG:O	1:B:2440:PRO:C	2.13	0.85
1:A:2432:LYS:O	1:A:2435:THR:HG23	1.77	0.84
1:A:511:ARG:NH2	1:A:569:LYS:O	2.10	0.84
1:B:285:GLU:CA	1:B:303:PHE:CG	2.60	0.84
1:D:285:GLU:N	1:D:303:PHE:CZ	2.45	0.84
1:D:232:ASP:OD2	1:D:385:ASN:ND2	2.11	0.84
1:A:285:GLU:CA	1:A:303:PHE:CG	2.60	0.84
1:B:2432:LYS:O	1:B:2435:THR:HG23	1.77	0.84
1:C:18:TYR:CZ	1:C:20:GLU:HG2	2.11	0.84
1:A:18:TYR:CZ	1:A:20:GLU:HG2	2.11	0.84
1:D:2431:ILE:H	1:D:2431:ILE:CD1	1.87	0.84
1:D:249:LYS:NZ	1:D:265:ARG:O	2.11	0.83
1:A:232:ASP:OD2	1:A:385:ASN:ND2	2.11	0.83
1:C:16:SER:HA	1:C:58:PHE:H	1.39	0.83
1:C:511:ARG:NH2	1:C:569:LYS:O	2.10	0.83
1:A:177:VAL:HG12	1:A:178:ILE:HD12	1.60	0.83
1:C:2432:LYS:O	1:C:2435:THR:HG23	1.77	0.83
1:B:232:ASP:OD2	1:B:385:ASN:ND2	2.11	0.83
1:B:2407:PHE:CA	1:B:2408:VAL:N	2.42	0.83
1:B:18:TYR:CZ	1:B:20:GLU:HG2	2.11	0.83
1:C:177:VAL:HG12	1:C:178:ILE:HD12	1.60	0.83
1:C:249:LYS:NZ	1:C:265:ARG:O	2.10	0.83
1:D:18:TYR:CZ	1:D:20:GLU:HG2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2407:PHE:CA	1:D:2408:VAL:N	2.42	0.83
1:C:232:ASP:OD2	1:C:385:ASN:ND2	2.11	0.83
1:C:2439:ARG:O	1:C:2440:PRO:C	2.12	0.83
1:A:2407:PHE:CA	1:A:2408:VAL:N	2.42	0.83
1:C:2428:LEU:HG	1:C:2429:ASN:CG	1.99	0.83
1:B:285:GLU:HB2	1:B:303:PHE:CG	2.14	0.82
1:A:285:GLU:CB	1:A:303:PHE:CD2	2.62	0.82
1:A:2428:LEU:HG	1:A:2429:ASN:CG	1.99	0.82
1:D:2428:LEU:C	1:D:2428:LEU:HA	1.98	0.82
1:B:285:GLU:CB	1:B:303:PHE:CD2	2.62	0.82
1:D:2439:ARG:O	1:D:2440:PRO:C	2.17	0.82
1:C:2407:PHE:CA	1:C:2408:VAL:N	2.42	0.82
1:D:18:TYR:CG	1:D:20:GLU:HG3	2.15	0.82
1:A:2439:ARG:O	1:A:2440:PRO:C	2.12	0.82
1:C:2272:ASN:CA	1:C:2273:MET:N	2.42	0.82
1:C:280:ALA:HA	1:C:281:LEU:HB2	1.62	0.82
1:D:117:TYR:CG	1:D:176:VAL:N	2.48	0.82
1:C:117:TYR:CG	1:C:176:VAL:N	2.47	0.82
1:C:18:TYR:CG	1:C:20:GLU:HG3	2.14	0.82
1:C:2580:ILE:HD13	1:C:2583:ASN:HD21	1.45	0.82
1:B:280:ALA:HA	1:B:281:LEU:HB2	1.62	0.82
1:C:285:GLU:HB2	1:C:303:PHE:CG	2.15	0.82
1:D:18:TYR:CD2	1:D:20:GLU:OE1	2.33	0.82
1:A:2272:ASN:CA	1:A:2273:MET:N	2.42	0.82
1:D:2272:ASN:CA	1:D:2273:MET:N	2.42	0.82
1:C:192:PRO:HG2	1:C:213:ASN:HD22	1.45	0.82
1:B:2272:ASN:CA	1:B:2273:MET:N	2.42	0.82
1:B:285:GLU:HB2	1:B:303:PHE:CD2	2.15	0.82
1:D:192:PRO:HG2	1:D:213:ASN:HD22	1.45	0.81
1:B:18:TYR:CD2	1:B:20:GLU:OE1	2.33	0.81
1:A:2732:ARG:C	1:A:2733:ILE:CA	2.48	0.81
1:B:58:PHE:HB3	1:B:123:LEU:HD11	1.62	0.81
1:C:2732:ARG:C	1:C:2733:ILE:CA	2.48	0.81
1:D:2732:ARG:C	1:D:2733:ILE:CA	2.48	0.81
1:D:285:GLU:CB	1:D:303:PHE:CD2	2.62	0.81
1:D:285:GLU:HB2	1:D:303:PHE:CD2	2.15	0.81
1:B:18:TYR:CG	1:B:20:GLU:HG3	2.15	0.81
1:C:285:GLU:CB	1:C:303:PHE:CD2	2.62	0.81
1:C:2682:SER:CA	1:C:2683:LEU:N	2.43	0.81
1:D:285:GLU:HB2	1:D:303:PHE:CG	2.14	0.81
1:A:285:GLU:HB2	1:A:303:PHE:CD2	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2554:ARG:HD3	1:B:2523:ASP:HA	1.62	0.81
1:B:2732:ARG:C	1:B:2733:ILE:CA	2.48	0.81
1:A:117:TYR:CG	1:A:176:VAL:N	2.48	0.81
1:B:249:LYS:NZ	1:B:265:ARG:O	2.11	0.81
1:B:192:PRO:HG2	1:B:213:ASN:HD22	1.45	0.81
1:A:285:GLU:HB2	1:A:303:PHE:CG	2.15	0.81
1:A:2523:ASP:HA	1:D:2554:ARG:HD3	1.62	0.81
1:A:58:PHE:HB3	1:A:123:LEU:HD11	1.62	0.81
1:C:2431:ILE:CD1	1:C:2431:ILE:H	1.89	0.81
1:B:117:TYR:CG	1:B:176:VAL:N	2.48	0.81
1:B:2682:SER:CA	1:B:2683:LEU:N	2.43	0.81
1:C:18:TYR:CD2	1:C:20:GLU:OE1	2.33	0.81
1:C:387:TYR:OH	1:C:432:ILE:O	1.99	0.81
1:A:2682:SER:CA	1:A:2683:LEU:N	2.43	0.81
1:A:249:LYS:NZ	1:A:265:ARG:O	2.10	0.81
1:D:2682:SER:CA	1:D:2683:LEU:N	2.43	0.81
1:B:2431:ILE:CD1	1:B:2431:ILE:H	1.89	0.81
1:B:2428:LEU:HG	1:B:2429:ASN:CG	2.01	0.80
1:D:387:TYR:OH	1:D:432:ILE:O	1.99	0.80
1:A:192:PRO:HG2	1:A:213:ASN:HD22	1.45	0.80
1:A:18:TYR:CD2	1:A:20:GLU:OE1	2.33	0.80
1:C:2374:GLY:O	1:C:2378:THR:OG1	2.00	0.80
1:B:266:THR:HG22	1:B:267:THR:HG23	1.63	0.80
1:D:280:ALA:HA	1:D:281:LEU:HB2	1.62	0.80
1:A:2509:ALA:CA	1:A:2510:PRO:N	2.44	0.80
1:D:2509:ALA:CA	1:D:2510:PRO:N	2.44	0.80
1:A:280:ALA:HA	1:A:281:LEU:HB2	1.62	0.80
1:B:2509:ALA:CA	1:B:2510:PRO:N	2.44	0.80
1:A:387:TYR:OH	1:A:432:ILE:O	1.99	0.80
1:D:58:PHE:HB3	1:D:123:LEU:HD11	1.62	0.80
1:C:285:GLU:HB2	1:C:303:PHE:CD2	2.15	0.80
1:D:2566:ARG:HA	1:D:2569:TYR:HB3	1.64	0.80
1:D:40:GLN:HG3	1:D:43:ALA:H	1.47	0.80
1:B:2434:VAL:HG22	1:B:2593:PHE:HZ	1.43	0.80
1:B:2580:ILE:HD13	1:B:2583:ASN:HD21	1.46	0.80
1:B:2374:GLY:O	1:B:2378:THR:OG1	1.99	0.80
1:D:2374:GLY:O	1:D:2378:THR:OG1	1.99	0.80
1:A:2566:ARG:HA	1:A:2569:TYR:HB3	1.64	0.80
1:C:18:TYR:CE1	1:C:20:GLU:OE2	2.35	0.80
1:C:2509:ALA:CA	1:C:2510:PRO:N	2.44	0.80
1:C:58:PHE:HB3	1:C:123:LEU:HD11	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2580:ILE:HD13	1:A:2583:ASN:HD21	1.45	0.80
1:B:2554:ARG:HD3	1:C:2523:ASP:HA	1.62	0.80
1:D:2434:VAL:CG2	1:D:2593:PHE:HZ	1.95	0.79
1:A:14:ILE:HG12	1:A:59:LYS:HG3	1.63	0.79
1:A:18:TYR:CG	1:A:20:GLU:HG3	2.14	0.79
1:A:18:TYR:CE1	1:A:20:GLU:OE2	2.35	0.79
1:D:2434:VAL:HG13	1:D:2589:ILE:HG23	1.64	0.79
1:D:117:TYR:N	1:D:174:ASP:O	2.16	0.79
1:D:18:TYR:CE1	1:D:20:GLU:OE2	2.35	0.79
1:A:2434:VAL:HG13	1:A:2589:ILE:HG23	1.65	0.79
1:D:2580:ILE:HD13	1:D:2583:ASN:HD21	1.46	0.79
1:B:2434:VAL:HG13	1:B:2589:ILE:HG23	1.65	0.79
1:C:2554:ARG:HD3	1:D:2523:ASP:HA	1.62	0.79
1:B:18:TYR:CE1	1:B:20:GLU:OE2	2.35	0.79
1:C:266:THR:HG22	1:C:267:THR:HG23	1.64	0.79
1:C:2434:VAL:HG13	1:C:2589:ILE:HG23	1.65	0.79
1:D:2428:LEU:O	1:D:2431:ILE:HD13	1.83	0.79
1:A:2414:SER:HB3	1:D:2457:ILE:HD13	1.63	0.78
1:A:266:THR:HG22	1:A:267:THR:HG23	1.64	0.78
1:A:117:TYR:N	1:A:174:ASP:O	2.16	0.78
1:B:117:TYR:N	1:B:174:ASP:O	2.16	0.78
1:B:387:TYR:OH	1:B:432:ILE:O	1.99	0.78
1:D:266:THR:HG22	1:D:267:THR:HG23	1.63	0.78
1:D:117:TYR:CZ	1:D:176:VAL:HA	2.19	0.78
1:C:117:TYR:N	1:C:174:ASP:O	2.16	0.78
1:B:2566:ARG:HA	1:B:2569:TYR:HB3	1.63	0.78
1:C:2318:LEU:HD12	1:C:2319:ILE:HG12	1.65	0.78
1:C:14:ILE:HG12	1:C:59:LYS:HG3	1.63	0.78
1:C:117:TYR:CZ	1:C:176:VAL:HA	2.18	0.78
1:A:194:HIS:ND1	1:A:210:ASN:O	2.17	0.78
1:B:194:HIS:ND1	1:B:210:ASN:O	2.17	0.78
1:A:2374:GLY:O	1:A:2378:THR:OG1	1.99	0.78
1:C:14:ILE:HG23	1:C:59:LYS:HA	1.66	0.78
1:D:194:HIS:ND1	1:D:210:ASN:O	2.17	0.78
1:D:551:HIS:O	1:D:555:LEU:N	2.17	0.78
1:A:2434:VAL:HG13	1:A:2589:ILE:HD12	1.66	0.77
1:D:14:ILE:HG12	1:D:59:LYS:HG3	1.65	0.77
1:B:551:HIS:O	1:B:555:LEU:N	2.17	0.77
1:C:2434:VAL:HG13	1:C:2589:ILE:HD12	1.65	0.77
1:B:2457:ILE:HD13	1:C:2414:SER:HB3	1.65	0.77
1:A:2318:LEU:HD12	1:A:2319:ILE:HG12	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2457:ILE:HD13	1:B:2414:SER:HB3	1.66	0.77
1:B:14:ILE:HG12	1:B:59:LYS:HG3	1.65	0.77
1:C:2566:ARG:HA	1:C:2569:TYR:HB3	1.64	0.77
1:C:40:GLN:HG3	1:C:43:ALA:H	1.48	0.77
1:A:2434:VAL:CG2	1:A:2593:PHE:HZ	1.97	0.77
1:A:368:PHE:HB3	1:A:390:LEU:HD11	1.65	0.77
1:D:511:ARG:HA	1:D:515:ILE:HG12	1.67	0.77
1:A:551:HIS:O	1:A:555:LEU:N	2.17	0.77
1:D:2379:PHE:HB2	1:D:2416:LEU:HD13	1.66	0.77
1:B:2318:LEU:HD12	1:B:2319:ILE:HG12	1.66	0.77
1:B:368:PHE:HB3	1:B:390:LEU:HD11	1.66	0.77
1:C:194:HIS:ND1	1:C:210:ASN:O	2.17	0.77
1:C:2434:VAL:CG2	1:C:2593:PHE:HZ	1.98	0.77
1:D:2318:LEU:HD12	1:D:2319:ILE:HG12	1.66	0.77
1:C:511:ARG:HA	1:C:515:ILE:HG12	1.67	0.77
1:C:368:PHE:HB3	1:C:390:LEU:HD11	1.65	0.77
1:C:2547:GLY:H	1:D:2544:ARG:HB3	1.49	0.77
1:A:40:GLN:HG3	1:A:43:ALA:H	1.48	0.77
1:B:40:GLN:HG3	1:B:43:ALA:H	1.48	0.76
1:B:511:ARG:HA	1:B:515:ILE:HG12	1.67	0.76
1:C:551:HIS:O	1:C:555:LEU:N	2.17	0.76
1:A:253:CYS:HA	1:A:262:VAL:HA	1.67	0.76
1:A:2431:ILE:H	1:A:2431:ILE:CD1	1.89	0.76
1:A:2544:ARG:HB3	1:D:2547:GLY:H	1.50	0.76
1:B:2379:PHE:HB2	1:B:2416:LEU:HD13	1.67	0.76
1:A:117:TYR:CZ	1:A:176:VAL:HA	2.18	0.76
1:A:2547:GLY:H	1:B:2544:ARG:HB3	1.50	0.76
1:A:2295:TYR:HB2	1:D:2531:LEU:HD13	1.68	0.76
1:A:511:ARG:HA	1:A:515:ILE:HG12	1.67	0.76
1:B:117:TYR:CZ	1:B:176:VAL:HA	2.18	0.76
1:A:14:ILE:HG23	1:A:59:LYS:HA	1.66	0.76
1:C:2457:ILE:HD13	1:D:2414:SER:HB3	1.66	0.76
1:B:246:GLU:N	1:B:428:GLU:OE2	2.19	0.75
1:D:2329:LYS:CG	1:D:2330:PRO:HD3	2.16	0.75
1:A:2431:ILE:O	1:A:2435:THR:HG22	1.87	0.75
1:B:2431:ILE:O	1:B:2435:THR:HG22	1.86	0.75
1:B:2547:GLY:H	1:C:2544:ARG:HB3	1.50	0.75
1:A:2274:SER:HB3	1:A:2339:SER:HB3	1.68	0.75
1:D:208:GLU:HG2	1:D:209:VAL:H	1.52	0.75
1:C:253:CYS:HA	1:C:262:VAL:HA	1.67	0.75
1:D:368:PHE:HB3	1:D:390:LEU:HD11	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:246:GLU:N	1:C:428:GLU:OE2	2.20	0.75
1:C:315:ALA:HA	1:C:355:LEU:HA	1.69	0.75
1:D:117:TYR:CZ	1:D:176:VAL:CG1	2.70	0.75
1:A:117:TYR:CE1	1:A:176:VAL:C	2.60	0.75
1:D:2434:VAL:HG22	1:D:2593:PHE:CE1	2.22	0.75
1:B:2274:SER:HB3	1:B:2339:SER:HB3	1.69	0.75
1:D:180:ASP:HB2	1:D:218:TRP:H	1.52	0.75
1:B:117:TYR:CE1	1:B:176:VAL:C	2.60	0.75
1:B:65:ARG:HG3	1:B:99:GLU:HG2	1.69	0.75
1:C:2524:LYS:HD2	1:C:2526:HIS:HD2	1.52	0.75
1:A:315:ALA:HA	1:A:355:LEU:HA	1.69	0.75
1:D:117:TYR:CE1	1:D:176:VAL:C	2.60	0.75
1:A:117:TYR:CZ	1:A:176:VAL:CG1	2.70	0.75
1:A:65:ARG:HG3	1:A:99:GLU:HG2	1.69	0.75
1:C:2274:SER:HB3	1:C:2339:SER:HB3	1.69	0.75
1:C:65:ARG:HG3	1:C:99:GLU:HG2	1.69	0.74
1:C:2379:PHE:HB2	1:C:2416:LEU:HD13	1.69	0.74
1:B:2329:LYS:CG	1:B:2330:PRO:HD3	2.17	0.74
1:B:36:ARG:NH2	1:B:202:ASP:OD1	2.18	0.74
1:D:404:ILE:HA	1:D:417:LYS:HD2	1.69	0.74
1:C:2531:LEU:HD13	1:D:2295:TYR:HB2	1.69	0.74
1:D:65:ARG:HG3	1:D:99:GLU:HG2	1.69	0.74
1:A:180:ASP:HB2	1:A:218:TRP:H	1.52	0.74
1:C:117:TYR:CE1	1:C:176:VAL:C	2.60	0.74
1:B:404:ILE:HA	1:B:417:LYS:HD2	1.69	0.74
1:D:263:PHE:HD1	1:D:416:LEU:HB3	1.53	0.74
1:B:2524:LYS:HD2	1:B:2526:HIS:HD2	1.53	0.74
1:A:404:ILE:HA	1:A:417:LYS:HD2	1.70	0.74
1:B:117:TYR:CZ	1:B:176:VAL:CG1	2.70	0.74
1:C:2329:LYS:CG	1:C:2330:PRO:HD3	2.17	0.74
1:B:315:ALA:HA	1:B:355:LEU:HA	1.69	0.74
1:A:263:PHE:HD1	1:A:416:LEU:HB3	1.53	0.74
1:D:315:ALA:HA	1:D:355:LEU:HA	1.69	0.74
1:A:36:ARG:NH2	1:A:202:ASP:OD1	2.19	0.74
1:D:246:GLU:N	1:D:428:GLU:OE2	2.19	0.74
1:C:2437:ASN:CG	1:C:2592:THR:CG2	2.56	0.74
1:A:2524:LYS:HD2	1:A:2526:HIS:HD2	1.51	0.74
1:B:194:HIS:HB2	1:B:209:VAL:HA	1.70	0.74
1:B:107:ASN:HA	1:B:110:LEU:HB2	1.70	0.74
1:B:2531:LEU:HD13	1:C:2295:TYR:HB2	1.67	0.74
1:D:36:ARG:NH2	1:D:202:ASP:OD1	2.18	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2434:VAL:HG13	1:C:2589:ILE:CG2	2.18	0.73
1:D:2274:SER:HB3	1:D:2339:SER:HB3	1.69	0.73
1:C:404:ILE:HA	1:C:417:LYS:HD2	1.70	0.73
1:A:2434:VAL:HG13	1:A:2589:ILE:CG2	2.18	0.73
1:D:2428:LEU:HD11	1:D:2429:ASN:ND2	2.03	0.73
1:D:14:ILE:HG23	1:D:59:LYS:HA	1.69	0.73
1:D:194:HIS:HB2	1:D:209:VAL:HA	1.70	0.73
1:C:263:PHE:HD1	1:C:416:LEU:HB3	1.52	0.73
1:A:2379:PHE:HB2	1:A:2416:LEU:HD13	1.69	0.73
1:D:107:ASN:HA	1:D:110:LEU:HB2	1.70	0.73
1:C:2431:ILE:O	1:C:2435:THR:HG22	1.87	0.73
1:B:69:GLN:NE2	1:B:96:ALA:O	2.22	0.73
1:C:117:TYR:CZ	1:C:176:VAL:CG1	2.70	0.73
1:C:180:ASP:HB2	1:C:218:TRP:H	1.53	0.73
1:A:208:GLU:HG2	1:A:209:VAL:H	1.54	0.73
1:B:263:PHE:HD1	1:B:416:LEU:HB3	1.53	0.73
1:B:253:CYS:HA	1:B:262:VAL:HA	1.70	0.73
1:A:107:ASN:HA	1:A:110:LEU:HB2	1.71	0.73
1:A:194:HIS:HB2	1:A:209:VAL:HA	1.71	0.73
1:B:208:GLU:HG2	1:B:209:VAL:H	1.52	0.73
1:D:2428:LEU:HD21	1:D:2429:ASN:ND2	2.03	0.73
1:B:240:VAL:HG21	1:B:435:VAL:HB	1.71	0.73
1:A:398:TRP:H	1:A:422:PRO:HG2	1.54	0.73
1:A:2432:LYS:HA	1:A:2435:THR:CG2	2.19	0.73
1:A:2437:ASN:CG	1:A:2592:THR:CG2	2.56	0.73
1:D:15:CYS:HB3	1:D:223:PHE:HB2	1.70	0.73
1:D:253:CYS:HA	1:D:262:VAL:HA	1.70	0.72
1:B:180:ASP:HB2	1:B:218:TRP:H	1.52	0.72
1:C:398:TRP:H	1:C:422:PRO:HG2	1.54	0.72
1:C:107:ASN:HA	1:C:110:LEU:HB2	1.71	0.72
1:A:2531:LEU:HD13	1:B:2295:TYR:HB2	1.70	0.72
1:B:14:ILE:HG23	1:B:59:LYS:HA	1.69	0.72
1:C:194:HIS:HB2	1:C:209:VAL:HA	1.71	0.72
1:A:2428:LEU:CG	1:A:2429:ASN:OD1	2.29	0.72
1:C:2325:ILE:CG2	1:C:2329:LYS:NZ	2.49	0.72
1:D:240:VAL:HG21	1:D:435:VAL:HB	1.71	0.72
1:A:117:TYR:CG	1:A:176:VAL:HB	2.21	0.72
1:A:240:VAL:HG21	1:A:435:VAL:HB	1.71	0.72
1:C:160:TRP:NE1	1:C:185:ASN:OD1	2.23	0.72
1:D:511:ARG:HD2	1:D:515:ILE:HG21	1.72	0.72
1:B:15:CYS:HB3	1:B:223:PHE:HB2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:69:GLN:NE2	1:C:96:ALA:O	2.22	0.72
1:C:285:GLU:HB3	1:C:304:ARG:O	1.90	0.72
1:D:2524:LYS:HD2	1:D:2526:HIS:HD2	1.53	0.72
1:A:15:CYS:HB3	1:A:223:PHE:HB2	1.72	0.71
1:C:2430:VAL:N	1:C:2431:ILE:HD12	2.05	0.71
1:C:2712:LEU:HD21	1:D:2707:LYS:HB3	1.73	0.71
1:B:285:GLU:HB3	1:B:304:ARG:O	1.90	0.71
1:B:2434:VAL:HG13	1:B:2589:ILE:CG2	2.20	0.71
1:B:2434:VAL:CG2	1:B:2593:PHE:HZ	2.02	0.71
1:B:2462:PHE:H	1:B:2566:ARG:HH21	1.38	0.71
1:A:410:GLU:HA	1:A:411:GLU:HB3	1.72	0.71
1:A:2430:VAL:N	1:A:2431:ILE:HD12	2.05	0.71
1:B:2437:ASN:CG	1:B:2592:THR:CG2	2.58	0.71
1:B:2434:VAL:HG13	1:B:2589:ILE:HD12	1.71	0.71
1:A:511:ARG:HD2	1:A:515:ILE:HG21	1.73	0.71
1:C:2549:VAL:HG22	1:C:2551:ASP:H	1.55	0.71
1:C:36:ARG:NH2	1:C:202:ASP:OD1	2.19	0.71
1:C:125:HIS:CE1	1:C:127:LYS:HB3	2.25	0.71
1:A:2549:VAL:HG22	1:A:2551:ASP:H	1.56	0.71
1:A:246:GLU:N	1:A:428:GLU:OE2	2.20	0.71
1:D:160:TRP:NE1	1:D:185:ASN:OD1	2.24	0.71
1:C:2425:GLU:OE2	1:C:2431:ILE:CG2	2.39	0.71
1:C:2432:LYS:HA	1:C:2435:THR:CG2	2.19	0.71
1:C:410:GLU:HA	1:C:411:GLU:HB3	1.72	0.71
1:A:160:TRP:NE1	1:A:185:ASN:OD1	2.23	0.71
1:D:2429:ASN:OD1	1:D:2430:VAL:HG23	1.91	0.71
1:B:291:PRO:O	1:B:293:ARG:NH1	2.24	0.71
1:D:410:GLU:HA	1:D:411:GLU:HB3	1.72	0.71
1:B:548:PRO:O	1:B:552:ILE:N	2.24	0.71
1:D:285:GLU:HB3	1:D:304:ARG:O	1.90	0.70
1:C:240:VAL:HG21	1:C:435:VAL:HB	1.71	0.70
1:C:2437:ASN:CG	1:C:2592:THR:HG22	2.12	0.70
1:C:567:TYR:CZ	1:C:570:ASN:HB3	2.26	0.70
1:D:220:ILE:HG22	1:D:221:VAL:H	1.56	0.70
1:A:285:GLU:HB3	1:A:304:ARG:O	1.90	0.70
1:A:2425:GLU:OE2	1:A:2431:ILE:CG2	2.39	0.70
1:B:2432:LYS:HA	1:B:2435:THR:CG2	2.21	0.70
1:B:511:ARG:HD2	1:B:515:ILE:HG21	1.72	0.70
1:D:2462:PHE:H	1:D:2566:ARG:HH21	1.38	0.70
1:D:291:PRO:O	1:D:293:ARG:NH1	2.24	0.70
1:A:2712:LEU:HD21	1:B:2707:LYS:HB3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2350:LEU:O	1:C:2353:THR:OG1	2.09	0.70
1:C:291:PRO:O	1:C:293:ARG:NH1	2.25	0.70
1:D:2428:LEU:CA	1:D:2429:ASN:N	2.52	0.70
1:A:567:TYR:CZ	1:A:570:ASN:HB3	2.26	0.70
1:A:2232:GLU:CA	1:A:2233:ARG:CA	2.70	0.70
1:D:2549:VAL:HG22	1:D:2551:ASP:H	1.57	0.70
1:D:548:PRO:O	1:D:552:ILE:N	2.24	0.70
1:B:160:TRP:NE1	1:B:185:ASN:OD1	2.24	0.70
1:B:2430:VAL:N	1:B:2431:ILE:HD12	2.05	0.70
1:A:2350:LEU:O	1:A:2353:THR:OG1	2.08	0.70
1:B:2232:GLU:CA	1:B:2233:ARG:CA	2.70	0.70
1:B:249:LYS:HE3	1:B:264:LEU:HD23	1.73	0.70
1:C:164:GLN:O	1:C:181:LYS:NZ	2.17	0.70
1:D:45:ASP:HB3	1:D:48:ASN:HB3	1.73	0.70
1:B:398:TRP:H	1:B:422:PRO:HG2	1.57	0.70
1:C:54:ARG:HG2	1:C:127:LYS:HE3	1.74	0.70
1:D:249:LYS:HE3	1:D:264:LEU:HD23	1.73	0.70
1:A:2462:PHE:H	1:A:2566:ARG:HH21	1.38	0.70
1:A:116:GLN:OE1	1:A:175:SER:OG	2.09	0.70
1:A:125:HIS:CE1	1:A:127:LYS:HB3	2.26	0.70
1:B:194:HIS:H	1:B:210:ASN:H	1.39	0.70
1:D:125:HIS:CE1	1:D:127:LYS:HB3	2.27	0.70
1:A:2604:GLU:N	1:A:2604:GLU:OE1	2.24	0.70
1:C:2232:GLU:CA	1:C:2233:ARG:CA	2.69	0.70
1:B:410:GLU:HA	1:B:411:GLU:HB3	1.72	0.70
1:D:2232:GLU:CA	1:D:2233:ARG:CA	2.70	0.70
1:C:466:THR:OG1	1:C:469:GLU:N	2.24	0.70
1:B:45:ASP:HB3	1:B:48:ASN:HB3	1.73	0.70
1:C:208:GLU:HG2	1:C:209:VAL:H	1.54	0.70
1:A:291:PRO:O	1:A:293:ARG:NH1	2.25	0.70
1:C:15:CYS:HB3	1:C:223:PHE:HB2	1.72	0.70
1:B:220:ILE:HG22	1:B:221:VAL:H	1.56	0.70
1:B:484:VAL:HG11	1:B:497:VAL:HG13	1.74	0.70
1:C:2462:PHE:H	1:C:2566:ARG:HH21	1.38	0.70
1:C:548:PRO:O	1:C:552:ILE:N	2.24	0.70
1:D:116:GLN:OE1	1:D:175:SER:OG	2.10	0.69
1:C:117:TYR:CG	1:C:176:VAL:HB	2.21	0.69
1:C:2420:LEU:O	1:C:2423:ARG:HG2	1.92	0.69
1:B:2420:LEU:O	1:B:2423:ARG:HG2	1.92	0.69
1:A:2329:LYS:CG	1:A:2330:PRO:HD3	2.22	0.69
1:B:2549:VAL:HG22	1:B:2551:ASP:H	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:548:PRO:O	1:A:552:ILE:N	2.24	0.69
1:D:2428:LEU:HG	1:D:2429:ASN:CG	2.13	0.69
1:A:249:LYS:HE3	1:A:264:LEU:HD23	1.73	0.69
1:D:567:TYR:CZ	1:D:570:ASN:HB3	2.28	0.69
1:A:2273:MET:N	1:A:2343:ARG:HH12	1.90	0.69
1:B:2712:LEU:HD21	1:C:2707:LYS:HB3	1.74	0.69
1:D:398:TRP:H	1:D:422:PRO:HG2	1.57	0.69
1:B:194:HIS:ND1	1:B:210:ASN:OD1	2.26	0.69
1:C:249:LYS:HE3	1:C:264:LEU:HD23	1.73	0.69
1:A:45:ASP:HB3	1:A:48:ASN:HB3	1.74	0.69
1:C:511:ARG:HD2	1:C:515:ILE:HG21	1.73	0.69
1:B:466:THR:OG1	1:B:469:GLU:N	2.24	0.69
1:D:69:GLN:NE2	1:D:96:ALA:O	2.22	0.69
1:A:2420:LEU:O	1:A:2423:ARG:HG2	1.92	0.69
1:B:125:HIS:CE1	1:B:127:LYS:HB3	2.27	0.69
1:C:2604:GLU:N	1:C:2604:GLU:OE1	2.24	0.69
1:A:484:VAL:HG11	1:A:497:VAL:HG13	1.73	0.69
1:D:2273:MET:N	1:D:2343:ARG:HH12	1.90	0.69
1:C:484:VAL:HG11	1:C:497:VAL:HG13	1.73	0.69
1:A:54:ARG:HG2	1:A:127:LYS:HE3	1.74	0.69
1:C:18:TYR:CE2	1:C:20:GLU:OE1	2.46	0.69
1:A:2437:ASN:CG	1:A:2592:THR:HG22	2.12	0.69
1:C:2428:LEU:CG	1:C:2429:ASN:OD1	2.28	0.69
1:C:2329:LYS:HG3	1:C:2330:PRO:HD3	1.74	0.69
1:B:2604:GLU:OE1	1:B:2604:GLU:N	2.25	0.69
1:D:484:VAL:HG11	1:D:497:VAL:HG13	1.74	0.69
1:A:2707:LYS:HB3	1:D:2712:LEU:HD21	1.74	0.69
1:A:466:THR:OG1	1:A:469:GLU:N	2.24	0.69
1:D:2428:LEU:C	1:D:2428:LEU:CB	2.61	0.69
1:C:2526:HIS:ND1	1:C:2528:CYS:SG	2.66	0.69
1:C:116:GLN:OE1	1:C:175:SER:OG	2.09	0.69
1:C:220:ILE:HG22	1:C:221:VAL:H	1.58	0.68
1:B:169:LEU:HD21	1:C:389:ARG:HH12	1.58	0.68
1:D:466:THR:OG1	1:D:469:GLU:N	2.24	0.68
1:D:194:HIS:H	1:D:210:ASN:H	1.39	0.68
1:A:2433:SER:OG	1:A:2593:PHE:CE1	2.45	0.68
1:D:2604:GLU:OE1	1:D:2604:GLU:N	2.25	0.68
1:D:194:HIS:ND1	1:D:210:ASN:OD1	2.26	0.68
1:C:45:ASP:HB3	1:C:48:ASN:HB3	1.74	0.68
1:D:54:ARG:HG2	1:D:127:LYS:HE3	1.75	0.68
1:C:2273:MET:N	1:C:2343:ARG:HH12	1.90	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:LEU:HB2	1:A:148:ARG:HG2	1.76	0.68
1:B:2425:GLU:OE2	1:B:2431:ILE:CG2	2.42	0.68
1:D:2434:VAL:CG2	1:D:2593:PHE:CZ	2.70	0.68
1:C:2433:SER:OG	1:C:2593:PHE:CE1	2.45	0.68
1:D:189:ALA:HB3	1:D:190:GLY:HA2	1.76	0.68
1:A:164:GLN:HG2	1:A:181:LYS:HE3	1.76	0.68
1:A:18:TYR:CE2	1:A:20:GLU:OE1	2.46	0.68
1:D:2425:GLU:OE2	1:D:2431:ILE:HG21	1.93	0.68
1:B:2329:LYS:HG3	1:B:2330:PRO:HD3	1.75	0.68
1:A:2526:HIS:ND1	1:A:2528:CYS:SG	2.66	0.68
1:B:2273:MET:N	1:B:2343:ARG:HH12	1.91	0.68
1:B:181:LYS:HD3	1:B:219:LYS:HE2	1.76	0.68
1:B:2437:ASN:CG	1:B:2592:THR:HG22	2.13	0.68
1:D:2420:LEU:O	1:D:2423:ARG:HG2	1.92	0.68
1:B:189:ALA:HB3	1:B:190:GLY:HA2	1.75	0.68
1:D:2460:TYR:OH	1:D:2551:ASP:OD2	2.09	0.68
1:B:180:ASP:HA	1:B:219:LYS:HB2	1.76	0.68
1:D:2434:VAL:HG13	1:D:2589:ILE:CG2	2.24	0.68
1:B:54:ARG:HG2	1:B:127:LYS:HE3	1.75	0.68
1:A:189:ALA:HB3	1:A:190:GLY:HA2	1.76	0.68
1:D:141:LEU:HB2	1:D:148:ARG:HG2	1.74	0.68
1:A:220:ILE:HG22	1:A:221:VAL:H	1.58	0.68
1:A:169:LEU:HD21	1:B:389:ARG:HH12	1.59	0.68
1:C:169:LEU:HD21	1:D:389:ARG:HH12	1.59	0.68
1:D:2329:LYS:HG3	1:D:2330:PRO:HD3	1.74	0.68
1:C:2707:LYS:O	1:C:2710:THR:OG1	2.09	0.68
1:B:2555:LYS:HZ2	1:B:2562:LEU:HD11	1.57	0.68
1:D:2726:GLN:OE1	1:D:2729:GLN:NE2	2.27	0.68
1:B:2321:LEU:HA	1:B:2324:VAL:HB	1.76	0.67
1:B:567:TYR:CZ	1:B:570:ASN:HB3	2.28	0.67
1:C:2726:GLN:OE1	1:C:2729:GLN:NE2	2.26	0.67
1:D:288:GLN:N	1:D:289:HIS:O	2.27	0.67
1:A:69:GLN:NE2	1:A:96:ALA:O	2.22	0.67
1:C:164:GLN:HG2	1:C:181:LYS:HE3	1.76	0.67
1:C:241:ARG:HA	1:C:282:TRP:HB3	1.77	0.67
1:D:2321:LEU:HA	1:D:2324:VAL:HB	1.76	0.67
1:A:2726:GLN:OE1	1:A:2729:GLN:NE2	2.26	0.67
1:D:285:GLU:CB	1:D:303:PHE:CG	2.77	0.67
1:D:180:ASP:HA	1:D:219:LYS:HB2	1.76	0.67
1:D:181:LYS:HD3	1:D:219:LYS:HE2	1.76	0.67
1:A:136:LYS:HD3	1:A:188:ASN:HB3	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2555:LYS:HZ2	1:A:2562:LEU:HD11	1.58	0.67
1:D:2350:LEU:O	1:D:2353:THR:OG1	2.12	0.67
1:D:11:ILE:O	1:D:226:TRP:NE1	2.28	0.67
1:A:389:ARG:HH12	1:D:169:LEU:HD21	1.58	0.67
1:C:194:HIS:H	1:C:210:ASN:H	1.41	0.67
1:C:180:ASP:HA	1:C:219:LYS:HB2	1.77	0.67
1:B:2726:GLN:OE1	1:B:2729:GLN:NE2	2.27	0.67
1:B:288:GLN:N	1:B:289:HIS:O	2.27	0.67
1:D:136:LYS:HD3	1:D:188:ASN:HB3	1.76	0.67
1:D:164:GLN:HG2	1:D:181:LYS:HE3	1.77	0.67
1:A:124:LEU:HA	1:A:131:TYR:HB2	1.77	0.67
1:A:28:SER:HB2	1:A:56:CYS:HA	1.76	0.67
1:B:2439:ARG:HB3	1:B:2440:PRO:HD2	1.77	0.67
1:C:2439:ARG:HB3	1:C:2440:PRO:HD2	1.77	0.67
1:C:2703:GLU:HA	1:C:2706:MET:HE2	1.77	0.67
1:B:141:LEU:HB2	1:B:148:ARG:HG2	1.75	0.67
1:D:18:TYR:CE2	1:D:20:GLU:OE1	2.47	0.67
1:B:241:ARG:HA	1:B:282:TRP:HB3	1.77	0.67
1:B:2554:ARG:NH2	1:C:2519:GLU:O	2.28	0.67
1:C:285:GLU:CB	1:C:303:PHE:CG	2.78	0.67
1:B:164:GLN:HG2	1:B:181:LYS:HE3	1.77	0.67
1:D:2437:ASN:CG	1:D:2592:THR:CG2	2.63	0.67
1:A:2325:ILE:CG2	1:A:2329:LYS:NZ	2.55	0.67
1:A:2554:ARG:NH2	1:B:2519:GLU:O	2.28	0.67
1:D:2526:HIS:ND1	1:D:2528:CYS:SG	2.68	0.67
1:A:194:HIS:H	1:A:210:ASN:H	1.41	0.67
1:B:18:TYR:CE2	1:B:20:GLU:OE1	2.47	0.67
1:D:229:ASN:O	1:D:235:LYS:NZ	2.28	0.67
1:B:285:GLU:CB	1:B:303:PHE:CG	2.77	0.67
1:A:164:GLN:O	1:A:181:LYS:NZ	2.17	0.67
1:A:180:ASP:HA	1:A:219:LYS:HB2	1.76	0.67
1:A:181:LYS:HD3	1:A:219:LYS:HE2	1.76	0.67
1:A:117:TYR:CG	1:A:176:VAL:CG2	2.78	0.66
1:C:11:ILE:O	1:C:226:TRP:NE1	2.28	0.66
1:C:136:LYS:HD3	1:C:188:ASN:HB3	1.76	0.66
1:B:178:ILE:HG12	1:B:221:VAL:HA	1.77	0.66
1:B:2526:HIS:ND1	1:B:2528:CYS:SG	2.68	0.66
1:A:2707:LYS:O	1:A:2710:THR:OG1	2.09	0.66
1:B:2350:LEU:O	1:B:2353:THR:OG1	2.12	0.66
1:B:229:ASN:O	1:B:235:LYS:NZ	2.28	0.66
1:B:389:ARG:NH1	1:B:427:LYS:O	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:181:LYS:HD3	1:C:219:LYS:HE2	1.76	0.66
1:C:28:SER:HB2	1:C:56:CYS:HA	1.77	0.66
1:A:2439:ARG:HB3	1:A:2440:PRO:HD2	1.77	0.66
1:B:117:TYR:CG	1:B:176:VAL:CG2	2.79	0.66
1:C:288:GLN:N	1:C:289:HIS:O	2.28	0.66
1:D:159:SER:HA	1:D:160:TRP:O	1.96	0.66
1:D:178:ILE:HG12	1:D:221:VAL:HA	1.77	0.66
1:A:159:SER:HA	1:A:160:TRP:O	1.96	0.66
1:C:141:LEU:HB2	1:C:148:ARG:HG2	1.76	0.66
1:C:198:HIS:N	1:C:207:ASN:OD1	2.29	0.66
1:A:2434:VAL:CG2	1:A:2593:PHE:CZ	2.74	0.66
1:B:2433:SER:OG	1:B:2593:PHE:CE1	2.48	0.66
1:C:2434:VAL:CG1	1:C:2589:ILE:HD12	2.26	0.66
1:C:574:ILE:HA	1:C:577:GLN:HB2	1.77	0.66
1:B:2434:VAL:CG2	1:B:2593:PHE:CZ	2.77	0.66
1:B:2325:ILE:CG2	1:B:2329:LYS:NZ	2.54	0.66
1:A:2321:LEU:HA	1:A:2324:VAL:HB	1.78	0.66
1:A:2329:LYS:HG3	1:A:2330:PRO:HD3	1.78	0.66
1:C:2554:ARG:NH2	1:D:2519:GLU:O	2.28	0.66
1:A:2457:ILE:HD13	1:B:2414:SER:CB	2.26	0.66
1:C:563:SER:O	1:C:570:ASN:ND2	2.27	0.66
1:B:2707:LYS:O	1:B:2710:THR:OG1	2.09	0.66
1:A:288:GLN:N	1:A:289:HIS:O	2.28	0.66
1:A:389:ARG:NH1	1:A:427:LYS:O	2.29	0.66
1:A:178:ILE:HG12	1:A:221:VAL:HA	1.77	0.66
1:D:389:ARG:NH1	1:D:427:LYS:O	2.28	0.66
1:B:2457:ILE:HD13	1:C:2414:SER:CB	2.26	0.66
1:A:194:HIS:ND1	1:A:210:ASN:OD1	2.28	0.66
1:B:11:ILE:O	1:B:226:TRP:NE1	2.28	0.66
1:B:136:LYS:HD3	1:B:188:ASN:HB3	1.76	0.66
1:A:563:SER:O	1:A:570:ASN:ND2	2.28	0.66
1:C:229:ASN:O	1:C:235:LYS:NZ	2.29	0.66
1:D:28:SER:HB2	1:D:56:CYS:HA	1.78	0.66
1:C:159:SER:HA	1:C:160:TRP:O	1.96	0.66
1:B:133:THR:O	1:B:137:ARG:NH1	2.28	0.66
1:B:28:SER:HB2	1:B:56:CYS:HA	1.78	0.66
1:B:2703:GLU:HA	1:B:2706:MET:HE2	1.78	0.66
1:A:2348:VAL:HG13	1:A:2351:GLN:HB2	1.78	0.66
1:C:189:ALA:HB3	1:C:190:GLY:HA2	1.76	0.66
1:A:241:ARG:HA	1:A:282:TRP:HB3	1.77	0.66
1:C:117:TYR:CG	1:C:176:VAL:CG2	2.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:285:GLU:CB	1:A:303:PHE:CG	2.78	0.66
1:A:2519:GLU:O	1:D:2554:ARG:NH2	2.28	0.66
1:C:2527:THR:OG1	1:C:2529:GLU:OE1	2.14	0.66
1:A:384:ARG:O	1:A:386:SER:N	2.29	0.66
1:C:384:ARG:O	1:C:386:SER:N	2.29	0.66
1:A:2414:SER:CB	1:D:2457:ILE:HD13	2.26	0.66
1:C:2555:LYS:HZ2	1:C:2562:LEU:HD11	1.61	0.66
1:D:117:TYR:CG	1:D:176:VAL:CG2	2.79	0.65
1:A:11:ILE:O	1:A:226:TRP:NE1	2.28	0.65
1:C:124:LEU:HA	1:C:131:TYR:HB2	1.77	0.65
1:B:2348:VAL:HG13	1:B:2351:GLN:HB2	1.78	0.65
1:A:198:HIS:N	1:A:207:ASN:OD1	2.29	0.65
1:C:2586:PHE:CD2	1:D:2586:PHE:CE2	2.75	0.65
1:D:307:HIS:HD2	1:D:309:ALA:HB3	1.61	0.65
1:A:122:GLN:NE2	1:A:159:SER:O	2.30	0.65
1:C:178:ILE:HG12	1:C:221:VAL:HA	1.77	0.65
1:B:159:SER:HA	1:B:160:TRP:O	1.96	0.65
1:D:241:ARG:HA	1:D:282:TRP:HB3	1.77	0.65
1:A:133:THR:O	1:A:137:ARG:NH1	2.29	0.65
1:B:124:LEU:HA	1:B:131:TYR:HB2	1.78	0.65
1:C:2516:PRO:HA	1:C:2519:GLU:HG2	1.79	0.65
1:C:524:GLN:HA	1:C:527:PHE:HB3	1.79	0.65
1:A:229:ASN:O	1:A:235:LYS:NZ	2.29	0.65
1:A:371:ASP:HB3	1:A:389:ARG:HB2	1.79	0.65
1:C:2429:ASN:OD1	1:C:2429:ASN:N	2.29	0.65
1:C:2321:LEU:HA	1:C:2324:VAL:HB	1.78	0.65
1:D:2555:LYS:HZ2	1:D:2562:LEU:HD11	1.59	0.65
1:D:133:THR:O	1:D:137:ARG:NH1	2.28	0.65
1:C:194:HIS:ND1	1:C:210:ASN:OD1	2.28	0.65
1:C:389:ARG:NH1	1:C:427:LYS:O	2.29	0.65
1:D:2527:THR:OG1	1:D:2529:GLU:OE1	2.13	0.65
1:C:2457:ILE:HD13	1:D:2414:SER:CB	2.26	0.65
1:A:505:GLU:O	1:A:507:GLN:N	2.29	0.65
1:B:198:HIS:N	1:B:207:ASN:OD1	2.29	0.65
1:B:505:GLU:O	1:B:507:GLN:N	2.30	0.65
1:C:2348:VAL:HG13	1:C:2351:GLN:HB2	1.78	0.65
1:D:13:ASP:OD1	1:D:225:LYS:HA	1.97	0.65
1:D:2348:VAL:HG13	1:D:2351:GLN:HB2	1.78	0.65
1:D:539:GLU:O	1:D:543:ASP:N	2.30	0.65
1:C:2731:GLN:HE21	1:D:394:CYS:HB3	1.62	0.65
1:B:170:ARG:HH12	1:C:373:THR:HG21	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2527:THR:OG1	1:B:2529:GLU:OE1	2.13	0.65
1:D:124:LEU:HA	1:D:131:TYR:HB2	1.78	0.65
1:D:198:HIS:N	1:D:207:ASN:OD1	2.29	0.65
1:C:133:THR:O	1:C:137:ARG:NH1	2.29	0.65
1:A:2516:PRO:HA	1:A:2519:GLU:HG2	1.79	0.65
1:B:2460:TYR:OH	1:B:2551:ASP:OD2	2.09	0.65
1:A:2434:VAL:CG1	1:A:2589:ILE:HD12	2.27	0.65
1:C:2600:LYS:HD3	1:C:2603:LYS:HZ3	1.62	0.65
1:D:2516:PRO:HA	1:D:2519:GLU:HG2	1.79	0.65
1:D:505:GLU:O	1:D:507:GLN:N	2.30	0.65
1:D:384:ARG:O	1:D:386:SER:N	2.30	0.65
1:C:13:ASP:OD1	1:C:225:LYS:HA	1.97	0.65
1:C:371:ASP:HB3	1:C:389:ARG:HB2	1.79	0.64
1:D:2439:ARG:HB3	1:D:2440:PRO:HD2	1.79	0.64
1:D:453:LEU:HA	1:D:456:ILE:HG12	1.80	0.64
1:A:2731:GLN:HE21	1:B:394:CYS:HB3	1.62	0.64
1:B:122:GLN:NE2	1:B:159:SER:O	2.30	0.64
1:A:574:ILE:HA	1:A:577:GLN:HB2	1.77	0.64
1:A:13:ASP:OD1	1:A:225:LYS:HA	1.97	0.64
1:C:122:GLN:NE2	1:C:159:SER:O	2.30	0.64
1:A:524:GLN:HA	1:A:527:PHE:HB3	1.79	0.64
1:A:2325:ILE:HG22	1:A:2329:LYS:HZ2	1.62	0.64
1:D:533:GLY:HA2	1:D:537:ARG:HB3	1.79	0.64
1:B:307:HIS:HD2	1:B:309:ALA:HB3	1.62	0.64
1:B:2516:PRO:HA	1:B:2519:GLU:HG2	1.79	0.64
1:B:384:ARG:O	1:B:386:SER:N	2.30	0.64
1:B:551:HIS:HA	1:B:554:ARG:HD3	1.80	0.64
1:A:250:PHE:CZ	1:A:272:ALA:HB1	2.33	0.64
1:B:533:GLY:HA2	1:B:537:ARG:HB3	1.79	0.64
1:B:453:LEU:HA	1:B:456:ILE:HG12	1.80	0.64
1:D:563:SER:O	1:D:570:ASN:ND2	2.31	0.64
1:B:563:SER:O	1:B:570:ASN:ND2	2.31	0.64
1:A:307:HIS:CD2	1:A:309:ALA:HB3	2.33	0.64
1:C:250:PHE:CZ	1:C:272:ALA:HB1	2.33	0.64
1:A:307:HIS:HD2	1:A:309:ALA:HB3	1.63	0.64
1:C:307:HIS:HD2	1:C:309:ALA:HB3	1.63	0.64
1:A:2429:ASN:N	1:A:2429:ASN:OD1	2.30	0.64
1:A:477:LEU:HG	1:A:555:LEU:HD22	1.79	0.64
1:C:505:GLU:O	1:C:507:GLN:N	2.30	0.64
1:C:2615:GLY:CA	1:C:2616:LEU:CA	2.76	0.64
1:D:250:PHE:CZ	1:D:272:ALA:HB1	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:185:ASN:HB3	1:A:191:GLN:HG3	1.80	0.64
1:B:1091:GLN:CA	1:B:1092:GLU:CA	2.76	0.64
1:A:391:ARG:HD3	1:A:398:TRP:CE3	2.33	0.64
1:D:392:HIS:NE2	1:D:394:CYS:SG	2.39	0.64
1:A:303:PHE:CB	1:A:303:PHE:CD2	2.76	0.64
1:D:2707:LYS:O	1:D:2710:THR:OG1	2.08	0.64
1:A:533:GLY:HA2	1:A:537:ARG:HB3	1.79	0.64
1:C:453:LEU:HA	1:C:456:ILE:HG12	1.80	0.64
1:D:117:TYR:CE2	1:D:170:ARG:HD3	2.33	0.63
1:C:117:TYR:CE2	1:C:170:ARG:HD3	2.33	0.63
1:C:27:ILE:HG13	1:C:218:TRP:HZ3	1.63	0.63
1:C:391:ARG:HD3	1:C:398:TRP:CE3	2.33	0.63
1:B:307:HIS:CD2	1:B:309:ALA:HB3	2.33	0.63
1:A:2615:GLY:CA	1:A:2616:LEU:CA	2.76	0.63
1:A:373:THR:HG21	1:D:170:ARG:HH12	1.62	0.63
1:D:400:HIS:ND1	1:D:422:PRO:HB3	2.13	0.63
1:D:307:HIS:CD2	1:D:309:ALA:HB3	2.33	0.63
1:A:2600:LYS:HD3	1:A:2603:LYS:HZ3	1.62	0.63
1:B:493:ASP:O	1:B:558:ARG:NH2	2.32	0.63
1:B:545:ARG:HE	1:B:547:ALA:HA	1.63	0.63
1:A:547:ALA:HB3	1:A:548:PRO:HD3	1.80	0.63
1:A:27:ILE:HG13	1:A:218:TRP:HZ3	1.63	0.63
1:B:2731:GLN:HE21	1:C:394:CYS:HB3	1.63	0.63
1:C:368:PHE:HA	1:C:392:HIS:HA	1.80	0.63
1:A:18:TYR:CE2	1:A:20:GLU:CB	2.82	0.63
1:C:2437:ASN:CG	1:C:2592:THR:HG21	2.19	0.63
1:D:125:HIS:O	1:D:129:ASN:N	2.31	0.63
1:A:551:HIS:HA	1:A:554:ARG:HD3	1.80	0.63
1:C:1091:GLN:CA	1:C:1092:GLU:CA	2.76	0.63
1:D:1091:GLN:CA	1:D:1092:GLU:CA	2.76	0.63
1:D:122:GLN:NE2	1:D:159:SER:O	2.30	0.63
1:D:191:GLN:HB3	1:D:192:PRO:HA	1.81	0.63
1:B:400:HIS:ND1	1:B:422:PRO:HB3	2.13	0.63
1:B:139:PRO:HG2	1:B:148:ARG:HH12	1.63	0.63
1:B:13:ASP:OD1	1:B:225:LYS:HA	1.97	0.63
1:D:574:ILE:HA	1:D:577:GLN:HB2	1.80	0.63
1:A:117:TYR:CE2	1:A:170:ARG:HD3	2.33	0.63
1:C:191:GLN:HB3	1:C:192:PRO:HA	1.81	0.63
1:B:117:TYR:CE2	1:B:170:ARG:HD3	2.33	0.63
1:B:191:GLN:HB3	1:B:192:PRO:HA	1.81	0.63
1:C:453:LEU:HG	1:C:456:ILE:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:GLN:HB3	1:A:192:PRO:HA	1.81	0.63
1:C:307:HIS:CD2	1:C:309:ALA:HB3	2.33	0.63
1:B:27:ILE:HG13	1:B:218:TRP:HZ3	1.64	0.63
1:D:2598:SER:O	1:D:2601:GLN:HG2	1.99	0.63
1:B:453:LEU:HG	1:B:456:ILE:HD11	1.81	0.63
1:B:2317:MET:HA	1:B:2320:SER:HA	1.81	0.63
1:C:400:HIS:ND1	1:C:422:PRO:HB3	2.14	0.63
1:C:18:TYR:CE2	1:C:20:GLU:CB	2.81	0.63
1:A:2547:GLY:N	1:B:2544:ARG:HD2	2.14	0.63
1:B:125:HIS:O	1:B:129:ASN:N	2.31	0.63
1:D:477:LEU:HG	1:D:555:LEU:HD22	1.79	0.63
1:D:493:ASP:O	1:D:558:ARG:NH2	2.31	0.63
1:D:2455:PHE:HA	1:D:2458:VAL:HG12	1.81	0.63
1:B:2455:PHE:HA	1:B:2458:VAL:HG12	1.81	0.63
1:C:2455:PHE:HA	1:C:2458:VAL:HG12	1.81	0.63
1:B:547:ALA:HB3	1:B:548:PRO:HD3	1.81	0.63
1:B:250:PHE:CZ	1:B:272:ALA:HB1	2.33	0.63
1:A:453:LEU:HA	1:A:456:ILE:HG12	1.80	0.63
1:D:2446:ALA:O	1:D:2450:ILE:HG12	1.99	0.63
1:A:394:CYS:HB3	1:D:2731:GLN:HE21	1.63	0.63
1:A:45:ASP:OD1	1:A:46:LEU:N	2.32	0.63
1:B:2429:ASN:OD1	1:B:2429:ASN:N	2.31	0.63
1:A:551:HIS:HA	1:A:554:ARG:HB2	1.80	0.63
1:B:2615:GLY:CA	1:B:2616:LEU:CA	2.76	0.63
1:B:2446:ALA:O	1:B:2450:ILE:HG12	1.99	0.63
1:A:1091:GLN:CA	1:A:1092:GLU:CA	2.76	0.63
1:B:18:TYR:CE2	1:B:20:GLU:CB	2.82	0.63
1:C:185:ASN:HB3	1:C:191:GLN:HG3	1.80	0.63
1:D:371:ASP:HB3	1:D:389:ARG:HB2	1.81	0.63
1:A:2455:PHE:HA	1:A:2458:VAL:HG12	1.80	0.63
1:B:315:ALA:O	1:B:421:SER:OG	2.16	0.63
1:D:105:THR:HG23	1:D:108:ARG:HH21	1.64	0.63
1:C:2555:LYS:HZ2	1:C:2562:LEU:HD21	1.64	0.63
1:C:2446:ALA:O	1:C:2450:ILE:HG12	1.99	0.63
1:C:551:HIS:HA	1:C:554:ARG:HB2	1.80	0.62
1:A:539:GLU:O	1:A:543:ASP:N	2.31	0.62
1:A:170:ARG:HH12	1:B:373:THR:HG21	1.64	0.62
1:C:551:HIS:HA	1:C:554:ARG:HD3	1.80	0.62
1:B:162:TYR:HB2	1:B:185:ASN:HB3	1.82	0.62
1:C:2434:VAL:CG2	1:C:2593:PHE:CZ	2.75	0.62
1:D:2527:THR:HB	1:D:2533:MET:HE1	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:551:HIS:HA	1:D:554:ARG:HD3	1.80	0.62
1:C:2523:ASP:OD1	1:C:2524:LYS:N	2.32	0.62
1:C:493:ASP:O	1:C:558:ARG:NH2	2.32	0.62
1:B:574:ILE:HA	1:B:577:GLN:HB2	1.80	0.62
1:A:368:PHE:HA	1:A:392:HIS:HA	1.80	0.62
1:B:371:ASP:HB3	1:B:389:ARG:HB2	1.81	0.62
1:C:170:ARG:HH12	1:D:373:THR:HG21	1.65	0.62
1:D:368:PHE:HA	1:D:392:HIS:HA	1.82	0.62
1:C:45:ASP:OD1	1:C:46:LEU:N	2.32	0.62
1:A:2598:SER:O	1:A:2601:GLN:HG2	1.99	0.62
1:B:507:GLN:NE2	1:B:562:HIS:O	2.33	0.62
1:D:453:LEU:HG	1:D:456:ILE:HD11	1.81	0.62
1:D:2317:MET:HA	1:D:2320:SER:HA	1.81	0.62
1:D:2615:GLY:CA	1:D:2616:LEU:CA	2.76	0.62
1:D:450:SER:HA	1:D:517:LYS:HE2	1.80	0.62
1:D:162:TYR:HB2	1:D:185:ASN:HB3	1.82	0.62
1:A:493:ASP:O	1:A:558:ARG:NH2	2.32	0.62
1:D:2555:LYS:HZ2	1:D:2562:LEU:HD21	1.65	0.62
1:C:533:GLY:HA2	1:C:537:ARG:HB3	1.79	0.62
1:D:139:PRO:HG2	1:D:148:ARG:HH12	1.63	0.62
1:D:27:ILE:HG13	1:D:218:TRP:HZ3	1.64	0.62
1:A:162:TYR:HB2	1:A:185:ASN:HB3	1.81	0.62
1:B:368:PHE:HA	1:B:392:HIS:HA	1.81	0.62
1:C:146:ALA:O	1:C:147:MET:HG3	2.00	0.62
1:C:162:TYR:HB2	1:C:185:ASN:HB3	1.82	0.62
1:C:249:LYS:HB3	1:C:264:LEU:HD23	1.82	0.62
1:B:116:GLN:OE1	1:B:175:SER:OG	2.10	0.62
1:A:400:HIS:ND1	1:A:422:PRO:HB3	2.14	0.62
1:B:397:THR:HG21	1:B:423:LEU:HA	1.81	0.62
1:C:196:SER:HB2	1:C:207:ASN:HB3	1.82	0.62
1:D:18:TYR:CE2	1:D:20:GLU:CB	2.82	0.62
1:C:231:ASP:O	1:C:233:ILE:N	2.33	0.62
1:C:2460:TYR:OH	1:C:2551:ASP:OD2	2.10	0.62
1:B:256:HIS:N	1:B:259:LYS:O	2.31	0.62
1:D:545:ARG:HE	1:D:547:ALA:HA	1.64	0.62
1:D:524:GLN:HA	1:D:527:PHE:HB3	1.81	0.62
1:A:139:PRO:HG2	1:A:148:ARG:HH12	1.64	0.62
1:B:281:LEU:HG	1:B:309:ALA:HB1	1.82	0.62
1:B:2600:LYS:HD3	1:B:2603:LYS:HZ3	1.63	0.62
1:C:2527:THR:HB	1:C:2533:MET:HE1	1.81	0.62
1:D:397:THR:HG21	1:D:423:LEU:HA	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:146:ALA:O	1:B:147:MET:HG3	2.00	0.62
1:D:2325:ILE:CG2	1:D:2329:LYS:NZ	2.54	0.62
1:B:2598:SER:O	1:B:2601:GLN:HG2	1.99	0.62
1:B:2523:ASP:OD1	1:B:2524:LYS:N	2.33	0.62
1:A:2527:THR:HB	1:A:2533:MET:HE1	1.81	0.62
1:A:2460:TYR:OH	1:A:2551:ASP:OD2	2.10	0.62
1:C:547:ALA:HB3	1:C:548:PRO:HD3	1.80	0.62
1:B:539:GLU:O	1:B:543:ASP:N	2.30	0.62
1:A:146:ALA:O	1:A:147:MET:HG3	2.00	0.62
1:B:249:LYS:HB3	1:B:264:LEU:HD23	1.82	0.62
1:D:249:LYS:HB3	1:D:264:LEU:HD23	1.82	0.62
1:C:270:GLN:HG3	1:C:271:SER:H	1.64	0.62
1:C:397:THR:HG21	1:C:423:LEU:HA	1.81	0.62
1:D:18:TYR:CD2	1:D:20:GLU:CB	2.83	0.62
1:C:2288:ASN:HA	1:C:2291:VAL:HG12	1.82	0.62
1:D:2600:LYS:HD3	1:D:2603:LYS:HZ3	1.64	0.62
1:B:477:LEU:HG	1:B:555:LEU:HD22	1.80	0.62
1:C:477:LEU:HG	1:C:555:LEU:HD22	1.79	0.62
1:D:547:ALA:HB3	1:D:548:PRO:HD3	1.81	0.62
1:A:577:GLN:N	1:A:577:GLN:OE1	2.32	0.62
1:A:397:THR:HG21	1:A:423:LEU:HA	1.81	0.61
1:D:69:GLN:HE22	1:D:100:LYS:HG2	1.65	0.61
1:B:18:TYR:CD2	1:B:20:GLU:CB	2.83	0.61
1:C:29:THR:HG21	1:C:37:CYS:HA	1.82	0.61
1:D:391:ARG:HD3	1:D:398:TRP:CE3	2.35	0.61
1:A:18:TYR:CD2	1:A:20:GLU:CB	2.83	0.61
1:D:281:LEU:HG	1:D:309:ALA:HB1	1.82	0.61
1:D:2523:ASP:OD1	1:D:2524:LYS:N	2.32	0.61
1:D:507:GLN:NE2	1:D:562:HIS:O	2.33	0.61
1:A:453:LEU:HG	1:A:456:ILE:HD11	1.80	0.61
1:C:125:HIS:O	1:C:129:ASN:N	2.33	0.61
1:D:45:ASP:OD1	1:D:46:LEU:N	2.33	0.61
1:B:450:SER:HA	1:B:517:LYS:HE2	1.80	0.61
1:A:29:THR:HG21	1:A:37:CYS:HA	1.82	0.61
1:B:20:GLU:HA	1:B:24:ASN:HA	1.82	0.61
1:D:2437:ASN:CG	1:D:2592:THR:HG22	2.21	0.61
1:A:2523:ASP:OD1	1:A:2524:LYS:N	2.32	0.61
1:B:303:PHE:CD2	1:B:303:PHE:CB	2.76	0.61
1:B:196:SER:HB2	1:B:207:ASN:HB3	1.82	0.61
1:A:2437:ASN:CG	1:A:2592:THR:HG21	2.19	0.61
1:C:2598:SER:O	1:C:2601:GLN:HG2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2460:TYR:HA	1:D:2566:ARG:NH1	2.16	0.61
1:C:2460:TYR:HA	1:C:2566:ARG:NH1	2.15	0.61
1:A:2317:MET:HA	1:A:2320:SER:HA	1.81	0.61
1:C:739:LEU:CA	1:C:740:PHE:CA	2.78	0.61
1:A:270:GLN:HG3	1:A:271:SER:H	1.64	0.61
1:B:400:HIS:HB2	1:B:420:THR:HG21	1.82	0.61
1:D:20:GLU:HA	1:D:24:ASN:HA	1.83	0.61
1:A:18:TYR:CD1	1:A:20:GLU:OE2	2.54	0.61
1:B:2600:LYS:HA	1:B:2603:LYS:HG2	1.82	0.61
1:B:239:VAL:HB	1:B:283:GLU:HA	1.82	0.61
1:D:231:ASP:O	1:D:233:ILE:N	2.34	0.61
1:A:2446:ALA:O	1:A:2450:ILE:HG12	1.99	0.61
1:D:71:GLN:HA	1:D:74:LYS:HZ3	1.66	0.61
1:C:539:GLU:O	1:C:543:ASP:N	2.30	0.61
1:D:146:ALA:O	1:D:147:MET:HG3	2.00	0.61
1:A:193:LEU:HA	1:A:210:ASN:C	2.21	0.61
1:B:45:ASP:OD1	1:B:46:LEU:N	2.33	0.61
1:A:231:ASP:O	1:A:233:ILE:N	2.33	0.61
1:B:2460:TYR:HA	1:B:2566:ARG:NH1	2.15	0.61
1:B:105:THR:HG23	1:B:108:ARG:HH21	1.64	0.61
1:A:392:HIS:NE2	1:A:394:CYS:SG	2.38	0.61
1:C:193:LEU:HA	1:C:210:ASN:C	2.21	0.61
1:A:2600:LYS:HA	1:A:2603:LYS:HG2	1.83	0.61
1:C:359:PRO:HB2	1:C:360:GLU:HA	1.83	0.61
1:B:2527:THR:HB	1:B:2533:MET:HE1	1.81	0.61
1:A:2460:TYR:HA	1:A:2566:ARG:NH1	2.15	0.61
1:C:450:SER:HA	1:C:517:LYS:HE2	1.81	0.61
1:D:193:LEU:HA	1:D:210:ASN:C	2.21	0.61
1:C:2547:GLY:N	1:D:2544:ARG:HD2	2.15	0.61
1:D:2600:LYS:HA	1:D:2603:LYS:HG2	1.82	0.61
1:A:2527:THR:OG1	1:A:2529:GLU:OE1	2.14	0.61
1:A:739:LEU:CA	1:A:740:PHE:CA	2.78	0.61
1:A:125:HIS:O	1:A:129:ASN:N	2.33	0.61
1:B:2434:VAL:HG22	1:B:2593:PHE:CE1	2.35	0.61
1:D:2430:VAL:H	1:D:2431:ILE:HD12	1.66	0.61
1:A:2288:ASN:HA	1:A:2291:VAL:HG12	1.82	0.61
1:D:281:LEU:HG	1:D:309:ALA:CB	2.31	0.61
1:A:105:THR:HG23	1:A:108:ARG:HH21	1.65	0.61
1:A:450:SER:HA	1:A:517:LYS:HE2	1.81	0.61
1:A:429:ALA:HB2	1:D:169:LEU:HG	1.83	0.61
1:C:139:PRO:HG2	1:C:148:ARG:HH12	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:392:HIS:NE2	1:C:394:CYS:SG	2.38	0.61
1:C:18:TYR:CD2	1:C:20:GLU:CB	2.83	0.61
1:C:2600:LYS:HA	1:C:2603:LYS:HG2	1.83	0.61
1:B:231:ASP:O	1:B:233:ILE:N	2.34	0.61
1:B:551:HIS:HA	1:B:554:ARG:HB2	1.82	0.61
1:A:249:LYS:HB3	1:A:264:LEU:HD23	1.82	0.60
1:B:193:LEU:HA	1:B:210:ASN:C	2.21	0.60
1:B:29:THR:HG21	1:B:37:CYS:HA	1.83	0.60
1:B:281:LEU:HG	1:B:309:ALA:CB	2.31	0.60
1:D:315:ALA:O	1:D:421:SER:OG	2.16	0.60
1:C:545:ARG:HE	1:C:547:ALA:HA	1.66	0.60
1:D:739:LEU:CA	1:D:740:PHE:CA	2.79	0.60
1:C:468:ASN:HA	1:C:471:ARG:HG2	1.82	0.60
1:D:303:PHE:CB	1:D:303:PHE:CD2	2.76	0.60
1:A:281:LEU:HG	1:A:309:ALA:CB	2.31	0.60
1:B:2437:ASN:CG	1:B:2592:THR:HG21	2.21	0.60
1:D:359:PRO:HB2	1:D:360:GLU:HA	1.83	0.60
1:D:551:HIS:HA	1:D:554:ARG:HB2	1.82	0.60
1:B:524:GLN:HA	1:B:527:PHE:HB3	1.81	0.60
1:D:164:GLN:O	1:D:181:LYS:NZ	2.16	0.60
1:D:29:THR:HG21	1:D:37:CYS:HA	1.83	0.60
1:A:196:SER:HB2	1:A:207:ASN:HB3	1.82	0.60
1:B:399:VAL:N	1:B:422:PRO:HG2	2.16	0.60
1:C:281:LEU:HG	1:C:309:ALA:HB1	1.83	0.60
1:D:2434:VAL:HG13	1:D:2589:ILE:HD12	1.83	0.60
1:D:2288:ASN:HA	1:D:2291:VAL:HG12	1.84	0.60
1:C:489:ASN:HB3	1:C:490:SER:OG	2.02	0.60
1:D:162:TYR:HB3	1:D:183:VAL:O	2.02	0.60
1:D:400:HIS:HB2	1:D:420:THR:HG21	1.82	0.60
1:D:399:VAL:N	1:D:422:PRO:HG2	2.16	0.60
1:B:164:GLN:O	1:B:181:LYS:NZ	2.16	0.60
1:C:2317:MET:HA	1:C:2320:SER:HA	1.81	0.60
1:A:143:GLU:HG3	1:A:144:LYS:H	1.66	0.60
1:B:10:HIS:HB3	1:B:115:ILE:HD12	1.84	0.60
1:B:391:ARG:HD3	1:B:398:TRP:CE3	2.35	0.60
1:C:281:LEU:HG	1:C:309:ALA:CB	2.31	0.60
1:D:395:THR:HG23	1:D:397:THR:H	1.67	0.60
1:C:399:VAL:N	1:C:422:PRO:HG2	2.17	0.60
1:D:143:GLU:HG3	1:D:144:LYS:H	1.66	0.60
1:C:69:GLN:HE22	1:C:100:LYS:HG2	1.66	0.60
1:D:2431:ILE:N	1:D:2431:ILE:HD12	2.08	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2425:GLU:OE2	1:C:2431:ILE:HG23	2.02	0.60
1:D:2441:ILE:O	1:D:2444:THR:OG1	2.11	0.60
1:B:2288:ASN:HA	1:B:2291:VAL:HG12	1.84	0.60
1:C:105:THR:HG23	1:C:108:ARG:HH21	1.66	0.60
1:A:507:GLN:NE2	1:A:562:HIS:O	2.34	0.60
1:A:468:ASN:HA	1:A:471:ARG:HG2	1.83	0.60
1:D:196:SER:HB2	1:D:207:ASN:HB3	1.83	0.60
1:A:69:GLN:HE22	1:A:100:LYS:HG2	1.66	0.60
1:A:2604:GLU:HA	1:A:2607:LEU:HB3	1.84	0.60
1:C:507:GLN:NE2	1:C:562:HIS:O	2.34	0.60
1:A:545:ARG:HE	1:A:547:ALA:HA	1.66	0.60
1:B:739:LEU:CA	1:B:740:PHE:CA	2.79	0.60
1:D:10:HIS:HB3	1:D:115:ILE:HD12	1.84	0.60
1:A:281:LEU:HG	1:A:309:ALA:HB1	1.83	0.60
1:B:395:THR:HG23	1:B:397:THR:H	1.67	0.60
1:D:2437:ASN:CG	1:D:2592:THR:HG21	2.22	0.60
1:D:2312:LEU:O	1:D:2315:THR:OG1	2.14	0.60
1:C:2358:GLY:HA2	1:C:2361:ASN:ND2	2.16	0.60
1:A:399:VAL:N	1:A:422:PRO:HG2	2.17	0.60
1:B:18:TYR:CD1	1:B:20:GLU:OE2	2.55	0.60
1:C:169:LEU:HG	1:D:429:ALA:HB2	1.84	0.60
1:B:162:TYR:HB3	1:B:183:VAL:O	2.01	0.60
1:B:117:TYR:CD2	1:B:176:VAL:CG2	2.85	0.60
1:C:18:TYR:CD1	1:C:20:GLU:OE2	2.54	0.60
1:D:1642:ASP:CA	1:D:1643:ALA:CA	2.80	0.60
1:A:2358:GLY:HA2	1:A:2361:ASN:ND2	2.16	0.60
1:A:1642:ASP:CA	1:A:1643:ALA:CA	2.80	0.60
1:C:2312:LEU:O	1:C:2315:THR:OG1	2.15	0.60
1:B:143:GLU:HG3	1:B:144:LYS:H	1.66	0.59
1:D:2604:GLU:HA	1:D:2607:LEU:HB3	1.84	0.59
1:A:246:GLU:HG3	1:A:429:ALA:HB3	1.84	0.59
1:D:117:TYR:CZ	1:D:176:VAL:C	2.76	0.59
1:A:10:HIS:HB3	1:A:115:ILE:HD12	1.84	0.59
1:C:162:TYR:HB3	1:C:183:VAL:O	2.02	0.59
1:C:20:GLU:HA	1:C:24:ASN:HA	1.84	0.59
1:A:20:GLU:HA	1:A:24:ASN:HA	1.84	0.59
1:D:239:VAL:HB	1:D:283:GLU:HA	1.83	0.59
1:A:239:VAL:HB	1:A:283:GLU:HA	1.84	0.59
1:B:577:GLN:N	1:B:577:GLN:OE1	2.32	0.59
1:B:468:ASN:HA	1:B:471:ARG:HG2	1.83	0.59
1:B:2425:GLU:OE2	1:B:2431:ILE:HG23	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2547:GLY:N	1:C:2544:ARG:HD2	2.17	0.59
1:C:264:LEU:O	1:C:415:MET:HG3	2.02	0.59
1:C:2425:GLU:OE2	1:C:2431:ILE:HG21	2.02	0.59
1:C:2708:LEU:O	1:C:2712:LEU:HG	2.02	0.59
1:D:577:GLN:OE1	1:D:577:GLN:N	2.32	0.59
1:D:468:ASN:HA	1:D:471:ARG:HG2	1.83	0.59
1:A:33:VAL:H	1:A:35:ASP:HB2	1.67	0.59
1:C:143:GLU:H	1:C:146:ALA:HB2	1.67	0.59
1:B:185:ASN:HB3	1:B:191:GLN:HG3	1.84	0.59
1:B:69:GLN:HE22	1:B:100:LYS:HG2	1.66	0.59
1:C:246:GLU:HG3	1:C:429:ALA:HB3	1.84	0.59
1:A:359:PRO:HB2	1:A:360:GLU:HA	1.83	0.59
1:C:577:GLN:N	1:C:577:GLN:OE1	2.33	0.59
1:B:2358:GLY:HA2	1:B:2361:ASN:ND2	2.17	0.59
1:B:304:ARG:NH2	1:B:363:ASP:O	2.36	0.59
1:D:134:VAL:HG23	1:D:149:VAL:HA	1.83	0.59
1:A:117:TYR:CD2	1:A:176:VAL:CG2	2.86	0.59
1:D:2144:ASP:CA	1:D:2145:GLY:CA	2.81	0.59
1:B:2144:ASP:CA	1:B:2145:GLY:CA	2.81	0.59
1:D:286:VAL:HG22	1:D:295:GLY:H	1.67	0.59
1:D:117:TYR:CD2	1:D:176:VAL:CG2	2.86	0.59
1:C:143:GLU:HG3	1:C:144:LYS:H	1.66	0.59
1:B:134:VAL:HG23	1:B:149:VAL:HA	1.83	0.59
1:B:169:LEU:HG	1:C:429:ALA:HB2	1.83	0.59
1:D:18:TYR:CD1	1:D:20:GLU:OE2	2.55	0.59
1:B:2434:VAL:CG1	1:B:2589:ILE:HD12	2.33	0.59
1:B:2604:GLU:HA	1:B:2607:LEU:HB3	1.84	0.59
1:B:2509:ALA:CA	1:B:2510:PRO:CD	2.81	0.59
1:C:2144:ASP:CA	1:C:2145:GLY:CA	2.80	0.59
1:A:143:GLU:H	1:A:146:ALA:HB2	1.67	0.59
1:B:264:LEU:O	1:B:415:MET:HG3	2.03	0.59
1:D:264:LEU:O	1:D:415:MET:HG3	2.03	0.59
1:D:270:GLN:HG3	1:D:271:SER:H	1.67	0.59
1:B:359:PRO:HB2	1:B:360:GLU:HA	1.84	0.59
1:C:315:ALA:O	1:C:421:SER:OG	2.20	0.59
1:D:238:ASP:HA	1:D:283:GLU:OE2	2.03	0.59
1:D:489:ASN:HB3	1:D:490:SER:OG	2.03	0.59
1:B:1642:ASP:CA	1:B:1643:ALA:CA	2.80	0.59
1:A:392:HIS:CD2	1:A:395:THR:HG22	2.38	0.59
1:A:162:TYR:HB3	1:A:183:VAL:O	2.02	0.59
1:C:304:ARG:NH2	1:C:363:ASP:O	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2527:THR:OG1	1:A:2528:CYS:HA	2.03	0.59
1:D:33:VAL:H	1:D:35:ASP:HB2	1.67	0.59
1:C:1639:ASP:CA	1:C:1640:ALA:CA	2.81	0.59
1:B:489:ASN:HB3	1:B:490:SER:OG	2.03	0.59
1:A:169:LEU:HG	1:B:429:ALA:HB2	1.83	0.59
1:D:417:LYS:HB2	1:D:418:ILE:HD12	1.85	0.59
1:A:2544:ARG:HD2	1:D:2547:GLY:N	2.17	0.59
1:A:2509:ALA:CA	1:A:2510:PRO:CD	2.81	0.59
1:D:2703:GLU:HA	1:D:2706:MET:HE2	1.85	0.59
1:B:2708:LEU:O	1:B:2712:LEU:HG	2.03	0.59
1:C:71:GLN:HA	1:C:74:LYS:HZ3	1.68	0.59
1:D:1883:GLY:CA	1:D:1884:ASN:CA	2.81	0.59
1:A:2144:ASP:CA	1:A:2145:GLY:CA	2.80	0.59
1:D:304:ARG:NH2	1:D:363:ASP:O	2.36	0.58
1:A:264:LEU:O	1:A:415:MET:HG3	2.02	0.58
1:A:304:ARG:NH2	1:A:363:ASP:O	2.36	0.58
1:D:2327:LEU:HB3	1:D:2328:PRO:HD3	1.85	0.58
1:C:2604:GLU:HA	1:C:2607:LEU:HB3	1.84	0.58
1:D:2509:ALA:CA	1:D:2510:PRO:CD	2.81	0.58
1:C:1225:ALA:CA	1:C:1226:GLU:CA	2.81	0.58
1:D:513:GLN:OE1	1:D:513:GLN:N	2.36	0.58
1:C:247:GLN:O	1:C:249:LYS:HG2	2.03	0.58
1:C:2509:ALA:CA	1:C:2510:PRO:CD	2.81	0.58
1:D:2708:LEU:O	1:D:2712:LEU:HG	2.03	0.58
1:B:238:ASP:HA	1:B:283:GLU:OE2	2.03	0.58
1:C:1883:GLY:CA	1:C:1884:ASN:CA	2.81	0.58
1:A:1371:LEU:CA	1:A:1372:PHE:CA	2.81	0.58
1:D:2358:GLY:HA2	1:D:2361:ASN:ND2	2.17	0.58
1:A:489:ASN:HB3	1:A:490:SER:OG	2.02	0.58
1:A:1225:ALA:CA	1:A:1226:GLU:CA	2.81	0.58
1:C:117:TYR:CD2	1:C:176:VAL:CG2	2.86	0.58
1:D:392:HIS:CD2	1:D:395:THR:HG22	2.38	0.58
1:C:400:HIS:HB2	1:C:420:THR:HG21	1.85	0.58
1:C:239:VAL:HB	1:C:283:GLU:HA	1.84	0.58
1:B:1883:GLY:CA	1:B:1884:ASN:CA	2.81	0.58
1:A:2429:ASN:C	1:A:2431:ILE:HD12	2.24	0.58
1:A:2434:VAL:HG22	1:A:2593:PHE:CE1	2.38	0.58
1:B:2554:ARG:NH2	1:C:2522:GLN:HB2	2.18	0.58
1:A:2555:LYS:HZ2	1:A:2562:LEU:HD21	1.68	0.58
1:C:1371:LEU:CA	1:C:1372:PHE:CA	2.81	0.58
1:B:33:VAL:H	1:B:35:ASP:HB2	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:376:ARG:NH2	1:D:178:ILE:O	2.37	0.58
1:A:117:TYR:CZ	1:A:176:VAL:C	2.76	0.58
1:A:2425:GLU:OE2	1:A:2431:ILE:HG21	2.03	0.58
1:A:2425:GLU:OE2	1:A:2431:ILE:HG23	2.02	0.58
1:C:2561:PRO:HA	1:C:2564:ALA:HB3	1.85	0.58
1:C:2434:VAL:HG22	1:C:2593:PHE:CE1	2.39	0.58
1:D:256:HIS:N	1:D:259:LYS:O	2.31	0.58
1:A:238:ASP:HA	1:A:283:GLU:OE2	2.04	0.58
1:B:1225:ALA:CA	1:B:1226:GLU:CA	2.82	0.58
1:B:71:GLN:HA	1:B:74:LYS:HZ3	1.67	0.58
1:C:117:TYR:CZ	1:C:176:VAL:C	2.76	0.58
1:C:2527:THR:OG1	1:C:2528:CYS:HA	2.03	0.58
1:A:256:HIS:N	1:A:259:LYS:O	2.32	0.58
1:A:2708:LEU:O	1:A:2712:LEU:HG	2.02	0.58
1:D:549:PHE:HA	1:D:552:ILE:HD12	1.85	0.58
1:D:2404:MET:CA	1:D:2405:GLY:CA	2.82	0.58
1:C:152:ASP:OD1	1:C:153:GLU:N	2.37	0.58
1:C:54:ARG:HH21	1:C:282:TRP:HE1	1.52	0.58
1:D:247:GLN:O	1:D:249:LYS:HG2	2.03	0.58
1:A:2327:LEU:HB3	1:A:2328:PRO:HD3	1.86	0.58
1:B:2404:MET:CA	1:B:2405:GLY:CA	2.82	0.58
1:A:2561:PRO:HA	1:A:2564:ALA:HB3	1.85	0.58
1:D:1225:ALA:CA	1:D:1226:GLU:CA	2.82	0.58
1:B:513:GLN:OE1	1:B:513:GLN:N	2.37	0.58
1:C:33:VAL:H	1:C:35:ASP:HB2	1.67	0.58
1:B:286:VAL:HG22	1:B:295:GLY:H	1.67	0.58
1:D:185:ASN:HB3	1:D:191:GLN:HG3	1.84	0.58
1:B:270:GLN:HG3	1:B:271:SER:H	1.67	0.58
1:C:286:VAL:HG22	1:C:295:GLY:H	1.68	0.58
1:B:117:TYR:CZ	1:B:176:VAL:C	2.76	0.58
1:B:131:TYR:N	1:B:152:ASP:O	2.37	0.58
1:B:549:PHE:HA	1:B:552:ILE:HD12	1.85	0.58
1:A:506:ARG:O	1:A:509:LEU:HG	2.03	0.58
1:C:238:ASP:HA	1:C:283:GLU:OE2	2.04	0.58
1:D:1371:LEU:CA	1:D:1372:PHE:CA	2.82	0.58
1:A:2404:MET:CA	1:A:2405:GLY:CA	2.82	0.58
1:C:10:HIS:NE2	1:C:176:VAL:O	2.36	0.58
1:B:194:HIS:H	1:B:210:ASN:N	2.02	0.58
1:B:2327:LEU:HB3	1:B:2328:PRO:HD3	1.85	0.58
1:B:54:ARG:HH21	1:B:282:TRP:HE1	1.52	0.58
1:A:1883:GLY:CA	1:A:1884:ASN:CA	2.81	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:513:GLN:N	1:C:513:GLN:OE1	2.37	0.58
1:B:417:LYS:HB2	1:B:418:ILE:HD12	1.85	0.58
1:B:27:ILE:HG13	1:B:218:TRP:CZ3	2.39	0.58
1:A:286:VAL:HG22	1:A:295:GLY:H	1.68	0.58
1:A:2432:LYS:HA	1:A:2435:THR:HG23	1.86	0.58
1:A:72:PHE:HD1	1:A:92:LEU:HD23	1.68	0.58
1:C:2404:MET:CA	1:C:2405:GLY:CA	2.82	0.58
1:A:372:PRO:HB2	1:A:374:THR:HG23	1.86	0.57
1:C:10:HIS:HB3	1:C:115:ILE:HD12	1.84	0.57
1:B:178:ILE:O	1:C:376:ARG:NH2	2.37	0.57
1:D:442:ASP:OD2	1:D:504:ARG:NH2	2.37	0.57
1:A:2522:GLN:HB2	1:D:2554:ARG:NH2	2.19	0.57
1:B:2555:LYS:HZ2	1:B:2562:LEU:HD21	1.67	0.57
1:C:1319:GLU:CA	1:C:1320:GLY:CA	2.82	0.57
1:A:373:THR:N	1:A:388:VAL:HG21	2.09	0.57
1:D:143:GLU:H	1:D:146:ALA:HB2	1.69	0.57
1:D:161:PHE:CE1	1:D:184:LEU:HD12	2.39	0.57
1:B:143:GLU:H	1:B:146:ALA:HB2	1.68	0.57
1:B:2429:ASN:C	1:B:2431:ILE:HD12	2.24	0.57
1:C:2295:TYR:CD1	1:C:2296:PRO:HD2	2.40	0.57
1:A:2552:VAL:HA	1:A:2553:LEU:CB	2.32	0.57
1:A:2554:ARG:NH2	1:B:2522:GLN:HB2	2.19	0.57
1:D:2527:THR:OG1	1:D:2528:CYS:HA	2.04	0.57
1:C:506:ARG:O	1:C:509:LEU:HG	2.03	0.57
1:A:247:GLN:O	1:A:249:LYS:HG2	2.03	0.57
1:B:392:HIS:CD2	1:B:395:THR:HG22	2.38	0.57
1:C:2554:ARG:NH2	1:D:2522:GLN:HB2	2.19	0.57
1:D:2310:SER:HB3	1:D:2312:LEU:HG	1.87	0.57
1:B:247:GLN:O	1:B:249:LYS:HG2	2.03	0.57
1:C:27:ILE:HG13	1:C:218:TRP:CZ3	2.40	0.57
1:C:303:PHE:CB	1:C:303:PHE:CD1	2.77	0.57
1:A:2462:PHE:H	1:A:2566:ARG:NH2	2.02	0.57
1:B:506:ARG:O	1:B:509:LEU:HG	2.03	0.57
1:C:439:GLU:OE1	1:C:439:GLU:N	2.38	0.57
1:C:1009:SER:CA	1:C:1010:GLU:CA	2.82	0.57
1:A:54:ARG:HH21	1:A:282:TRP:HE1	1.52	0.57
1:A:6:SER:O	1:A:7:SER:OG	2.23	0.57
1:B:299:TRP:CD1	1:B:372:PRO:HG3	2.40	0.57
1:C:392:HIS:CD2	1:C:395:THR:HG22	2.38	0.57
1:C:2429:ASN:C	1:C:2431:ILE:HD12	2.24	0.57
1:A:2703:GLU:HA	1:A:2706:MET:HE2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:720:LYS:CA	1:A:721:GLU:CA	2.83	0.57
1:D:1319:GLU:CA	1:D:1320:GLY:CA	2.83	0.57
1:B:1371:LEU:CA	1:B:1372:PHE:CA	2.81	0.57
1:A:373:THR:HG21	1:D:170:ARG:NH1	2.20	0.57
1:A:152:ASP:OD1	1:A:153:GLU:N	2.37	0.57
1:D:299:TRP:CD1	1:D:372:PRO:HG3	2.40	0.57
1:B:2295:TYR:CD1	1:B:2296:PRO:HD2	2.40	0.57
1:D:720:LYS:CA	1:D:721:GLU:CA	2.83	0.57
1:A:1009:SER:CA	1:A:1010:GLU:CA	2.82	0.57
1:A:84:THR:HG21	1:A:88:LEU:HD13	1.87	0.57
1:C:134:VAL:HG23	1:C:149:VAL:HA	1.87	0.57
1:D:2428:LEU:CG	1:D:2429:ASN:H	2.11	0.57
1:A:2295:TYR:CD1	1:A:2296:PRO:HD2	2.39	0.57
1:D:54:ARG:HH21	1:D:282:TRP:HE1	1.52	0.57
1:C:2552:VAL:HA	1:C:2553:LEU:CB	2.32	0.57
1:C:2455:PHE:HB2	1:C:2573:PHE:CE1	2.40	0.57
1:D:235:LYS:HB3	1:D:238:ASP:OD1	2.05	0.57
1:D:1009:SER:CA	1:D:1010:GLU:CA	2.82	0.57
1:C:72:PHE:HD1	1:C:92:LEU:HD23	1.68	0.57
1:A:513:GLN:N	1:A:513:GLN:OE1	2.37	0.57
1:C:161:PHE:CE1	1:C:184:LEU:HD12	2.40	0.57
1:C:2327:LEU:HB3	1:C:2328:PRO:HD3	1.86	0.57
1:D:506:ARG:O	1:D:509:LEU:HG	2.04	0.57
1:A:442:ASP:OD2	1:A:504:ARG:NH2	2.38	0.57
1:D:44:GLY:HA3	1:D:50:PRO:HD3	1.87	0.57
1:C:44:GLY:HA3	1:C:50:PRO:HD3	1.86	0.57
1:B:246:GLU:HG3	1:B:429:ALA:HB3	1.87	0.57
1:B:387:TYR:CD1	1:B:431:ALA:HB3	2.40	0.57
1:C:395:THR:HG23	1:C:397:THR:H	1.70	0.57
1:D:2429:ASN:N	1:D:2431:ILE:HD13	2.19	0.57
1:C:2441:ILE:O	1:C:2444:THR:OG1	2.11	0.57
1:C:235:LYS:HB3	1:C:238:ASP:OD1	2.05	0.57
1:B:772:ASN:CA	1:B:773:LEU:CA	2.83	0.57
1:C:720:LYS:CA	1:C:721:GLU:CA	2.83	0.57
1:A:71:GLN:HA	1:A:74:LYS:HZ3	1.68	0.57
1:A:1319:GLU:CA	1:A:1320:GLY:CA	2.82	0.57
1:D:152:ASP:OD1	1:D:153:GLU:N	2.37	0.57
1:A:53:PHE:HA	1:A:56:CYS:HB3	1.87	0.57
1:B:161:PHE:CE1	1:B:184:LEU:HD12	2.39	0.57
1:C:299:TRP:CD1	1:C:372:PRO:HG3	2.40	0.57
1:D:2514:LEU:HA	1:D:2517:VAL:HG12	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:772:ASN:CA	1:D:773:LEU:CA	2.83	0.57
1:A:387:TYR:CD1	1:A:431:ALA:HB3	2.40	0.56
1:D:130:LYS:NZ	1:D:153:GLU:OE1	2.34	0.56
1:A:2433:SER:OG	1:A:2434:VAL:N	2.38	0.56
1:D:2455:PHE:HB2	1:D:2573:PHE:CE1	2.40	0.56
1:B:2701:LYS:HB2	1:C:2700:GLU:OE2	2.05	0.56
1:A:134:VAL:HG23	1:A:149:VAL:HA	1.87	0.56
1:A:10:HIS:NE2	1:A:176:VAL:O	2.36	0.56
1:C:193:LEU:O	1:C:214:CYS:HB3	2.06	0.56
1:D:2432:LYS:C	1:D:2435:THR:HG23	2.26	0.56
1:B:2527:THR:OG1	1:B:2528:CYS:HA	2.04	0.56
1:B:442:ASP:OD2	1:B:504:ARG:NH2	2.37	0.56
1:B:235:LYS:HB3	1:B:238:ASP:OD1	2.05	0.56
1:C:84:THR:HG21	1:C:88:LEU:HD13	1.87	0.56
1:B:2310:SER:HB3	1:B:2312:LEU:HG	1.86	0.56
1:B:1009:SER:CA	1:B:1010:GLU:CA	2.82	0.56
1:B:392:HIS:NE2	1:B:394:CYS:SG	2.39	0.56
1:C:303:PHE:CB	1:C:303:PHE:CD2	2.76	0.56
1:B:2433:SER:OG	1:B:2434:VAL:N	2.38	0.56
1:D:2295:TYR:CD1	1:D:2296:PRO:HD2	2.40	0.56
1:B:72:PHE:HD1	1:B:92:LEU:HD23	1.71	0.56
1:A:772:ASN:CA	1:A:773:LEU:CA	2.84	0.56
1:A:2701:LYS:HB2	1:B:2700:GLU:OE2	2.05	0.56
1:B:720:LYS:CA	1:B:721:GLU:CA	2.83	0.56
1:A:44:GLY:HA3	1:A:50:PRO:HD3	1.86	0.56
1:C:193:LEU:N	1:C:212:VAL:O	2.39	0.56
1:C:308:LEU:N	1:C:309:ALA:HB2	2.21	0.56
1:B:308:LEU:N	1:B:309:ALA:HB2	2.20	0.56
1:D:1462:CYS:CA	1:D:1463:ASN:CA	2.83	0.56
1:C:2514:LEU:HA	1:C:2517:VAL:HG12	1.88	0.56
1:B:1319:GLU:CA	1:B:1320:GLY:CA	2.83	0.56
1:D:131:TYR:N	1:D:152:ASP:O	2.37	0.56
1:D:194:HIS:H	1:D:210:ASN:N	2.02	0.56
1:A:193:LEU:O	1:A:214:CYS:HB3	2.06	0.56
1:A:308:LEU:N	1:A:309:ALA:HB2	2.21	0.56
1:B:170:ARG:NH1	1:C:373:THR:HG21	2.20	0.56
1:B:168:LYS:NZ	1:C:247:GLN:HA	2.21	0.56
1:A:2432:LYS:C	1:A:2435:THR:HG23	2.26	0.56
1:D:477:LEU:O	1:D:480:LEU:HB2	2.06	0.56
1:D:387:TYR:CD1	1:D:431:ALA:HB3	2.40	0.56
1:C:549:PHE:HA	1:C:552:ILE:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2312:LEU:O	1:B:2315:THR:OG1	2.14	0.56
1:C:1462:CYS:CA	1:C:1463:ASN:CA	2.84	0.56
1:B:2428:LEU:CG	1:B:2429:ASN:OD1	2.35	0.56
1:C:477:LEU:O	1:C:480:LEU:HB2	2.06	0.56
1:C:2701:LYS:HB2	1:D:2700:GLU:OE2	2.05	0.56
1:B:44:GLY:HA3	1:B:50:PRO:HD3	1.87	0.56
1:A:2700:GLU:OE2	1:D:2701:LYS:HB2	2.06	0.56
1:A:299:TRP:CD1	1:A:372:PRO:HG3	2.41	0.56
1:C:2282:ASN:O	1:C:2285:VAL:HG22	2.06	0.56
1:A:2333:ILE:HG13	1:A:2334:ARG:N	2.21	0.56
1:B:282:TRP:H	1:B:308:LEU:H	1.54	0.56
1:D:27:ILE:HG13	1:D:218:TRP:CZ3	2.39	0.56
1:A:161:PHE:CE1	1:A:184:LEU:HD12	2.40	0.56
1:B:152:ASP:OD1	1:B:153:GLU:N	2.37	0.56
1:C:2432:LYS:HA	1:C:2435:THR:HG23	1.86	0.56
1:D:2283:LEU:O	1:D:2286:LEU:HB3	2.06	0.56
1:A:311:GLY:HA2	1:A:359:PRO:HD3	1.87	0.56
1:C:311:GLY:HA2	1:C:359:PRO:HD3	1.87	0.56
1:B:2552:VAL:HA	1:B:2553:LEU:CB	2.32	0.56
1:C:256:HIS:N	1:C:259:LYS:O	2.32	0.56
1:A:235:LYS:HB3	1:A:238:ASP:OD1	2.05	0.56
1:A:2735:LEU:CA	1:A:2736:LEU:CA	2.84	0.56
1:B:2735:LEU:CA	1:B:2736:LEU:CA	2.84	0.56
1:D:103:ASN:HA	1:D:106:GLU:OE2	2.05	0.56
1:D:53:PHE:HA	1:D:56:CYS:HB3	1.88	0.56
1:C:194:HIS:H	1:C:210:ASN:N	2.04	0.56
1:C:29:THR:OG1	1:C:38:VAL:N	2.32	0.56
1:D:372:PRO:HB2	1:D:374:THR:HG23	1.88	0.56
1:C:372:PRO:HB2	1:C:374:THR:HG23	1.87	0.56
1:C:2432:LYS:C	1:C:2435:THR:HG23	2.26	0.56
1:C:442:ASP:OD2	1:C:504:ARG:NH2	2.38	0.56
1:D:72:PHE:HD1	1:D:92:LEU:HD23	1.71	0.56
1:B:1462:CYS:CA	1:B:1463:ASN:CA	2.83	0.56
1:C:131:TYR:N	1:C:152:ASP:O	2.37	0.56
1:B:103:ASN:HA	1:B:106:GLU:OE2	2.06	0.56
1:D:242:LEU:HD22	1:D:307:HIS:HB3	1.88	0.56
1:C:387:TYR:CD1	1:C:431:ALA:HB3	2.40	0.56
1:B:477:LEU:O	1:B:480:LEU:HB2	2.06	0.56
1:C:2455:PHE:HB2	1:C:2573:PHE:CZ	2.41	0.56
1:A:549:PHE:HA	1:A:552:ILE:HD12	1.87	0.56
1:A:1462:CYS:CA	1:A:1463:ASN:CA	2.84	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2312:LEU:O	1:A:2315:THR:OG1	2.14	0.56
1:A:27:ILE:HG13	1:A:218:TRP:CZ3	2.39	0.55
1:C:391:ARG:HD3	1:C:398:TRP:HE3	1.70	0.55
1:B:2326:ALA:HA	1:B:2329:LYS:CE	2.37	0.55
1:A:2329:LYS:O	1:A:2333:ILE:HG12	2.07	0.55
1:D:282:TRP:H	1:D:308:LEU:H	1.54	0.55
1:A:306:LYS:HA	1:A:313:TYR:HB3	1.87	0.55
1:C:306:LYS:HA	1:C:313:TYR:HB3	1.87	0.55
1:B:2561:PRO:HA	1:B:2564:ALA:HB3	1.86	0.55
1:A:2483:THR:CA	1:A:2484:GLY:CA	2.84	0.55
1:D:525:ALA:HB3	1:D:526:PRO:HD3	1.89	0.55
1:A:193:LEU:N	1:A:212:VAL:O	2.39	0.55
1:D:246:GLU:HG3	1:D:429:ALA:HB3	1.87	0.55
1:C:170:ARG:NH1	1:D:373:THR:HG21	2.22	0.55
1:A:20:GLU:CG	1:A:20:GLU:CD	2.75	0.55
1:D:2329:LYS:HG2	1:D:2330:PRO:HD3	1.88	0.55
1:A:2282:ASN:O	1:A:2285:VAL:HG22	2.06	0.55
1:D:311:GLY:HA2	1:D:359:PRO:HD3	1.87	0.55
1:D:484:VAL:HG13	1:D:562:HIS:CE1	2.41	0.55
1:D:418:ILE:HG22	1:D:419:GLY:N	2.21	0.55
1:D:20:GLU:CG	1:D:20:GLU:CD	2.75	0.55
1:B:2283:LEU:O	1:B:2286:LEU:HB3	2.06	0.55
1:D:308:LEU:N	1:D:309:ALA:HB2	2.20	0.55
1:B:311:GLY:HA2	1:B:359:PRO:HD3	1.87	0.55
1:A:2455:PHE:HB2	1:A:2573:PHE:CZ	2.41	0.55
1:A:439:GLU:OE1	1:A:439:GLU:N	2.38	0.55
1:A:540:GLU:O	1:A:544:GLN:HG2	2.06	0.55
1:D:1057:GLY:CA	1:D:1058:ARG:CA	2.84	0.55
1:A:395:THR:HG23	1:A:397:THR:H	1.69	0.55
1:B:20:GLU:CG	1:B:20:GLU:CD	2.75	0.55
1:C:6:SER:O	1:C:7:SER:OG	2.23	0.55
1:C:6:SER:O	1:D:376:ARG:HG3	2.07	0.55
1:D:2431:ILE:O	1:D:2435:THR:HG22	2.05	0.55
1:D:2326:ALA:HA	1:D:2329:LYS:CE	2.36	0.55
1:B:242:LEU:HD22	1:B:307:HIS:HB3	1.89	0.55
1:C:484:VAL:HG13	1:C:562:HIS:CE1	2.41	0.55
1:A:504:ARG:HG2	1:A:506:ARG:H	1.71	0.55
1:A:1057:GLY:CA	1:A:1058:ARG:CA	2.84	0.55
1:C:2178:GLY:CA	1:C:2179:GLN:CA	2.85	0.55
1:C:2735:LEU:CA	1:C:2736:LEU:CA	2.84	0.55
1:C:2483:THR:CA	1:C:2484:GLY:CA	2.84	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:388:VAL:O	1:A:429:ALA:HA	2.07	0.55
1:A:400:HIS:HB2	1:A:420:THR:HG21	1.86	0.55
1:B:418:ILE:HG22	1:B:419:GLY:N	2.21	0.55
1:B:388:VAL:O	1:B:429:ALA:HA	2.07	0.55
1:C:103:ASN:HA	1:C:106:GLU:OE2	2.06	0.55
1:C:53:PHE:HA	1:C:56:CYS:HB3	1.87	0.55
1:C:2283:LEU:O	1:C:2286:LEU:HB3	2.07	0.55
1:D:2552:VAL:HA	1:D:2553:LEU:CB	2.32	0.55
1:A:32:LEU:N	1:A:33:VAL:HA	2.22	0.55
1:B:2514:LEU:HA	1:B:2517:VAL:HG12	1.87	0.55
1:C:1057:GLY:CA	1:C:1058:ARG:CA	2.84	0.55
1:D:193:LEU:O	1:D:214:CYS:HB3	2.06	0.55
1:A:124:LEU:HD12	1:A:131:TYR:HB2	1.87	0.55
1:C:124:LEU:HD12	1:C:131:TYR:HB2	1.87	0.55
1:C:130:LYS:NZ	1:C:153:GLU:OE1	2.35	0.55
1:B:10:HIS:NE2	1:B:176:VAL:O	2.39	0.55
1:D:2561:PRO:HA	1:D:2564:ALA:HB3	1.88	0.55
1:D:2274:SER:H	1:D:2343:ARG:NH1	2.05	0.55
1:D:2462:PHE:H	1:D:2566:ARG:NH2	2.03	0.55
1:B:2178:GLY:CA	1:B:2179:GLN:CA	2.85	0.55
1:A:26:PHE:HB3	1:A:56:CYS:SG	2.47	0.55
1:B:372:PRO:HB2	1:B:374:THR:HG23	1.87	0.55
1:C:168:LYS:NZ	1:D:247:GLN:HA	2.22	0.55
1:B:209:VAL:HG11	1:B:218:TRP:HZ2	1.72	0.55
1:C:388:VAL:O	1:C:429:ALA:HA	2.07	0.55
1:C:2333:ILE:HG13	1:C:2334:ARG:N	2.21	0.55
1:A:2455:PHE:HB2	1:A:2573:PHE:CE1	2.40	0.55
1:B:2455:PHE:HB2	1:B:2573:PHE:CE1	2.40	0.55
1:B:2462:PHE:H	1:B:2566:ARG:NH2	2.03	0.55
1:C:772:ASN:CA	1:C:773:LEU:CA	2.84	0.55
1:A:2514:LEU:HA	1:A:2517:VAL:HG12	1.88	0.55
1:D:2735:LEU:CA	1:D:2736:LEU:CA	2.84	0.55
1:B:244:HIS:CD2	1:B:430:PHE:HB3	2.42	0.55
1:D:299:TRP:CG	1:D:372:PRO:HG3	2.42	0.55
1:C:389:ARG:HD2	1:C:398:TRP:HE1	1.72	0.55
1:C:417:LYS:HB2	1:C:418:ILE:HD12	1.89	0.55
1:D:439:GLU:OE1	1:D:439:GLU:N	2.39	0.55
1:B:439:GLU:N	1:B:439:GLU:OE1	2.39	0.55
1:A:2310:SER:HB3	1:A:2312:LEU:HG	1.89	0.55
1:C:499:PHE:O	1:C:502:PRO:HD2	2.07	0.55
1:C:525:ALA:HB3	1:C:526:PRO:HD3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2483:THR:CA	1:B:2484:GLY:CA	2.85	0.55
1:A:6:SER:O	1:B:376:ARG:HG3	2.06	0.55
1:D:388:VAL:O	1:D:429:ALA:HA	2.07	0.55
1:D:2333:ILE:HG13	1:D:2334:ARG:N	2.21	0.55
1:B:2333:ILE:HG13	1:B:2334:ARG:N	2.21	0.55
1:C:2462:PHE:H	1:C:2566:ARG:NH2	2.02	0.55
1:A:484:VAL:HG13	1:A:562:HIS:CE1	2.41	0.55
1:C:540:GLU:O	1:C:544:GLN:HG2	2.07	0.55
1:A:499:PHE:O	1:A:502:PRO:HD2	2.07	0.55
1:D:2483:THR:CA	1:D:2484:GLY:CA	2.85	0.55
1:A:194:HIS:H	1:A:210:ASN:N	2.04	0.55
1:B:299:TRP:CG	1:B:372:PRO:HG3	2.41	0.55
1:B:193:LEU:O	1:B:214:CYS:HB3	2.06	0.55
1:B:53:PHE:HA	1:B:56:CYS:HB3	1.88	0.55
1:B:254:ASP:OD1	1:B:255:GLU:N	2.40	0.55
1:B:514:ASN:C	1:B:518:GLN:HE22	2.10	0.55
1:A:2274:SER:H	1:A:2343:ARG:NH1	2.05	0.55
1:B:484:VAL:HG13	1:B:562:HIS:CE1	2.41	0.55
1:A:477:LEU:O	1:A:480:LEU:HB2	2.06	0.55
1:C:2555:LYS:NZ	1:C:2562:LEU:HD11	2.22	0.55
1:D:192:PRO:HG2	1:D:213:ASN:HA	1.89	0.54
1:B:162:TYR:H	1:B:185:ASN:H	1.56	0.54
1:B:2432:LYS:HA	1:B:2435:THR:HG23	1.88	0.54
1:B:2432:LYS:C	1:B:2435:THR:HG23	2.27	0.54
1:C:2433:SER:OG	1:C:2434:VAL:N	2.38	0.54
1:D:504:ARG:HG2	1:D:506:ARG:H	1.72	0.54
1:C:2362:VAL:O	1:C:2366:ILE:HG12	2.07	0.54
1:D:2178:GLY:CA	1:D:2179:GLN:CA	2.85	0.54
1:B:373:THR:N	1:B:388:VAL:HG21	2.11	0.54
1:C:181:LYS:HB2	1:C:219:LYS:HZ3	1.72	0.54
1:C:254:ASP:OD1	1:C:255:GLU:N	2.40	0.54
1:D:244:HIS:CD2	1:D:430:PHE:HB3	2.42	0.54
1:B:2585:ILE:O	1:B:2589:ILE:HG12	2.07	0.54
1:B:499:PHE:O	1:B:502:PRO:HD2	2.08	0.54
1:B:504:ARG:HG2	1:B:506:ARG:H	1.73	0.54
1:A:2178:GLY:CA	1:A:2179:GLN:CA	2.85	0.54
1:A:525:ALA:HB3	1:A:526:PRO:HD3	1.90	0.54
1:B:1057:GLY:CA	1:B:1058:ARG:CA	2.84	0.54
1:A:170:ARG:NH1	1:B:373:THR:HG21	2.21	0.54
1:D:2585:ILE:O	1:D:2589:ILE:HG12	2.07	0.54
1:A:315:ALA:O	1:A:421:SER:OG	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:540:GLU:O	1:D:544:GLN:HG2	2.08	0.54
1:C:2310:SER:HB3	1:C:2312:LEU:HG	1.89	0.54
1:A:247:GLN:HA	1:D:168:LYS:NZ	2.21	0.54
1:A:192:PRO:HB2	1:A:212:VAL:O	2.08	0.54
1:D:2282:ASN:O	1:D:2285:VAL:HG22	2.06	0.54
1:D:254:ASP:OD1	1:D:255:GLU:N	2.41	0.54
1:D:2555:LYS:NZ	1:D:2562:LEU:HD11	2.22	0.54
1:A:417:LYS:HB2	1:A:418:ILE:HD12	1.90	0.54
1:D:162:TYR:H	1:D:185:ASN:H	1.56	0.54
1:B:418:ILE:HG22	1:B:419:GLY:H	1.72	0.54
1:C:143:GLU:HG2	1:C:194:HIS:CD2	2.43	0.54
1:C:20:GLU:CG	1:C:20:GLU:CD	2.75	0.54
1:D:2419:ASP:O	1:D:2422:TYR:HB3	2.08	0.54
1:B:2274:SER:H	1:B:2343:ARG:NH1	2.05	0.54
1:D:2455:PHE:HB2	1:D:2573:PHE:CZ	2.41	0.54
1:C:504:ARG:HG2	1:C:506:ARG:H	1.71	0.54
1:C:261:HIS:ND1	1:C:355:LEU:HD11	2.23	0.54
1:C:33:VAL:HG23	1:C:35:ASP:HB2	1.90	0.54
1:D:192:PRO:HB2	1:D:212:VAL:O	2.08	0.54
1:A:103:ASN:HA	1:A:106:GLU:OE2	2.06	0.54
1:C:120:VAL:HG13	1:C:161:PHE:H	1.73	0.54
1:C:192:PRO:HB2	1:C:212:VAL:O	2.08	0.54
1:B:6:SER:O	1:B:7:SER:OG	2.24	0.54
1:B:2282:ASN:O	1:B:2285:VAL:HG22	2.06	0.54
1:B:2455:PHE:HB2	1:B:2573:PHE:CZ	2.42	0.54
1:A:261:HIS:ND1	1:A:355:LEU:HD11	2.23	0.54
1:A:2362:VAL:O	1:A:2366:ILE:HG12	2.07	0.54
1:A:2415:LEU:HA	1:A:2418:PHE:CZ	2.43	0.54
1:A:389:ARG:HD2	1:A:398:TRP:HE1	1.73	0.54
1:C:2337:ILE:O	1:C:2341:ILE:HG22	2.08	0.54
1:B:2329:LYS:HG2	1:B:2330:PRO:HD3	1.88	0.54
1:A:2283:LEU:O	1:A:2286:LEU:HB3	2.07	0.54
1:D:514:ASN:C	1:D:518:GLN:HE22	2.11	0.54
1:B:2555:LYS:NZ	1:B:2562:LEU:HD11	2.22	0.54
1:D:32:LEU:N	1:D:33:VAL:HA	2.22	0.54
1:D:199:GLN:HB2	1:D:206:CYS:HB3	1.90	0.54
1:A:391:ARG:HD3	1:A:398:TRP:HE3	1.70	0.54
1:A:168:LYS:NZ	1:B:247:GLN:HA	2.22	0.54
1:B:143:GLU:HG2	1:B:194:HIS:CD2	2.43	0.54
1:B:192:PRO:HG2	1:B:213:ASN:HA	1.89	0.54
1:A:2337:ILE:O	1:A:2341:ILE:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:499:PHE:O	1:D:502:PRO:HD2	2.07	0.54
1:C:2274:SER:H	1:C:2343:ARG:NH1	2.05	0.54
1:B:2362:VAL:O	1:B:2366:ILE:HG12	2.08	0.54
1:B:525:ALA:HB3	1:B:526:PRO:HD3	1.89	0.54
1:D:2721:ASP:OD1	1:D:2722:GLN:N	2.41	0.54
1:D:143:GLU:HG2	1:D:194:HIS:CD2	2.43	0.54
1:D:26:PHE:HB3	1:D:56:CYS:SG	2.48	0.54
1:A:120:VAL:HG13	1:A:161:PHE:H	1.73	0.54
1:B:117:TYR:CZ	1:B:177:VAL:N	2.76	0.54
1:B:193:LEU:N	1:B:212:VAL:O	2.41	0.54
1:A:2540:SER:O	1:A:2544:ARG:HG2	2.07	0.54
1:B:32:LEU:N	1:B:33:VAL:HA	2.22	0.54
1:B:33:VAL:HG23	1:B:35:ASP:HB2	1.90	0.54
1:D:1460:ARG:CA	1:D:1461:ALA:CA	2.86	0.54
1:C:2415:LEU:HA	1:C:2418:PHE:CZ	2.43	0.54
1:D:2481:PRO:CA	1:D:2482:GLU:CA	2.86	0.54
1:B:1460:ARG:CA	1:B:1461:ALA:CA	2.86	0.54
1:D:209:VAL:HG11	1:D:218:TRP:HZ2	1.72	0.54
1:A:282:TRP:H	1:A:308:LEU:H	1.56	0.54
1:C:26:PHE:HB3	1:C:56:CYS:SG	2.47	0.54
1:C:418:ILE:HG22	1:C:419:GLY:N	2.23	0.54
1:A:2451:LEU:O	1:A:2454:LEU:HG	2.08	0.54
1:C:2540:SER:O	1:C:2544:ARG:HG2	2.07	0.54
1:A:514:ASN:C	1:A:518:GLN:HE22	2.11	0.54
1:D:47:ASN:HA	1:D:291:PRO:HD3	1.89	0.54
1:A:2555:LYS:NZ	1:A:2562:LEU:HD11	2.22	0.54
1:C:32:LEU:N	1:C:33:VAL:HA	2.22	0.54
1:D:2451:LEU:O	1:D:2454:LEU:HG	2.08	0.54
1:D:117:TYR:CZ	1:D:177:VAL:N	2.76	0.53
1:D:193:LEU:N	1:D:212:VAL:O	2.41	0.53
1:A:143:GLU:HG2	1:A:194:HIS:CD2	2.43	0.53
1:A:254:ASP:OD1	1:A:255:GLU:N	2.40	0.53
1:C:299:TRP:CG	1:C:372:PRO:HG3	2.43	0.53
1:C:373:THR:N	1:C:388:VAL:HG21	2.09	0.53
1:B:2329:LYS:O	1:B:2333:ILE:HG12	2.08	0.53
1:B:2337:ILE:O	1:B:2341:ILE:HG22	2.08	0.53
1:C:2274:SER:H	1:C:2343:ARG:CZ	2.21	0.53
1:C:546:HIS:H	1:C:549:PHE:HE2	1.56	0.53
1:D:1464:ASN:CA	1:D:1465:THR:CA	2.86	0.53
1:D:317:GLU:HG3	1:D:318:VAL:O	2.08	0.53
1:A:1464:ASN:CA	1:A:1465:THR:CA	2.87	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2481:PRO:CA	1:B:2482:GLU:CA	2.86	0.53
1:B:1464:ASN:CA	1:B:1465:THR:CA	2.87	0.53
1:B:199:GLN:HB2	1:B:206:CYS:HB3	1.91	0.53
1:A:117:TYR:CZ	1:A:177:VAL:N	2.77	0.53
1:B:391:ARG:HD3	1:B:398:TRP:HE3	1.73	0.53
1:B:18:TYR:CD2	1:B:20:GLU:HB2	2.43	0.53
1:A:2419:ASP:O	1:A:2422:TYR:HB3	2.08	0.53
1:B:2540:SER:OG	1:B:2541:HIS:N	2.41	0.53
1:B:540:GLU:O	1:B:544:GLN:HG2	2.08	0.53
1:B:2451:LEU:O	1:B:2454:LEU:HG	2.08	0.53
1:C:242:LEU:HD22	1:C:307:HIS:HB3	1.91	0.53
1:B:26:PHE:HB3	1:B:56:CYS:SG	2.48	0.53
1:D:2540:SER:OG	1:D:2541:HIS:N	2.41	0.53
1:C:2329:LYS:HG2	1:C:2330:PRO:HD3	1.89	0.53
1:C:2329:LYS:O	1:C:2333:ILE:HG12	2.08	0.53
1:B:2721:ASP:OD1	1:B:2722:GLN:N	2.41	0.53
1:A:1460:ARG:CA	1:A:1461:ALA:CA	2.87	0.53
1:B:130:LYS:NZ	1:B:153:GLU:OE1	2.34	0.53
1:A:18:TYR:CD2	1:A:20:GLU:HB2	2.43	0.53
1:D:2337:ILE:O	1:D:2341:ILE:HG22	2.08	0.53
1:B:577:GLN:HA	1:B:580:PHE:CD2	2.44	0.53
1:A:2355:PHE:CZ	1:A:2357:LEU:HD23	2.44	0.53
1:C:1460:ARG:CA	1:C:1461:ALA:CA	2.86	0.53
1:D:306:LYS:HA	1:D:313:TYR:HB3	1.90	0.53
1:D:2355:PHE:CZ	1:D:2357:LEU:HD23	2.44	0.53
1:C:2481:PRO:CA	1:C:2482:GLU:CA	2.87	0.53
1:D:6:SER:O	1:D:7:SER:OG	2.24	0.53
1:C:192:PRO:HG2	1:C:213:ASN:HA	1.91	0.53
1:D:418:ILE:HG22	1:D:419:GLY:H	1.72	0.53
1:B:29:THR:OG1	1:B:38:VAL:N	2.31	0.53
1:A:314:LEU:O	1:A:356:VAL:N	2.42	0.53
1:C:577:GLN:HA	1:C:580:PHE:CD2	2.44	0.53
1:C:2355:PHE:CZ	1:C:2357:LEU:HD23	2.44	0.53
1:B:317:GLU:HG3	1:B:318:VAL:O	2.08	0.53
1:C:69:GLN:HG3	1:C:99:GLU:CD	2.29	0.53
1:C:18:TYR:CD2	1:C:20:GLU:HB2	2.43	0.53
1:B:2540:SER:O	1:B:2544:ARG:HG2	2.08	0.53
1:C:2326:ALA:HA	1:C:2329:LYS:CE	2.39	0.53
1:C:2554:ARG:NH2	1:D:2519:GLU:HB2	2.23	0.53
1:C:514:ASN:C	1:C:518:GLN:HE22	2.11	0.53
1:A:577:GLN:HA	1:A:580:PHE:CD2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2355:PHE:CZ	1:B:2357:LEU:HD23	2.44	0.53
1:A:2721:ASP:OD1	1:A:2722:GLN:N	2.42	0.53
1:B:2370:MET:HA	1:B:2373:VAL:HG22	1.91	0.53
1:C:117:TYR:CZ	1:C:177:VAL:N	2.76	0.53
1:A:2437:ASN:CB	1:A:2592:THR:HG22	2.34	0.53
1:B:2571:LEU:O	1:B:2575:PHE:HB3	2.09	0.53
1:C:2588:VAL:O	1:C:2592:THR:HG23	2.09	0.53
1:D:2329:LYS:O	1:D:2333:ILE:HG12	2.08	0.53
1:B:506:ARG:HD3	1:B:562:HIS:CE1	2.44	0.53
1:D:542:GLY:HA2	1:D:549:PHE:CE1	2.44	0.53
1:D:2362:VAL:O	1:D:2366:ILE:HG12	2.08	0.53
1:A:192:PRO:HG2	1:A:213:ASN:HA	1.91	0.53
1:A:69:GLN:HG3	1:A:99:GLU:CD	2.29	0.53
1:C:282:TRP:H	1:C:308:LEU:H	1.56	0.53
1:D:2588:VAL:O	1:D:2592:THR:HG23	2.09	0.53
1:A:2554:ARG:NH2	1:B:2519:GLU:HB2	2.23	0.53
1:D:543:ASP:OD1	1:D:550:ARG:NH2	2.37	0.53
1:A:564:GLN:N	1:A:564:GLN:OE1	2.42	0.53
1:D:185:ASN:HB2	1:D:191:GLN:H	1.74	0.53
1:A:242:LEU:HD22	1:A:307:HIS:HB3	1.91	0.53
1:C:244:HIS:CD2	1:C:430:PHE:HB3	2.43	0.53
1:D:18:TYR:CD2	1:D:20:GLU:HB2	2.43	0.53
1:B:2588:VAL:O	1:B:2592:THR:HG23	2.09	0.53
1:A:506:ARG:HD3	1:A:562:HIS:CE1	2.44	0.53
1:C:1464:ASN:CA	1:C:1465:THR:CA	2.87	0.53
1:C:317:GLU:HG3	1:C:318:VAL:O	2.09	0.53
1:C:2370:MET:HA	1:C:2373:VAL:HG22	1.91	0.53
1:A:299:TRP:CG	1:A:372:PRO:HG3	2.43	0.53
1:D:178:ILE:HG21	1:D:221:VAL:HG12	1.91	0.53
1:A:162:TYR:H	1:A:185:ASN:H	1.57	0.53
1:D:2540:SER:O	1:D:2544:ARG:HG2	2.08	0.53
1:C:2721:ASP:OD1	1:C:2722:GLN:N	2.42	0.53
1:D:84:THR:HG21	1:D:88:LEU:HD13	1.91	0.53
1:B:303:PHE:CD1	1:B:303:PHE:CB	2.77	0.52
1:D:181:LYS:HB2	1:D:219:LYS:HZ3	1.74	0.52
1:D:69:GLN:HG3	1:D:99:GLU:CD	2.30	0.52
1:C:21:GLY:H	1:C:24:ASN:HA	1.74	0.52
1:B:2425:GLU:OE2	1:B:2431:ILE:HG21	2.08	0.52
1:A:2289:LEU:HA	1:A:2417:LEU:HD11	1.91	0.52
1:B:314:LEU:O	1:B:356:VAL:N	2.42	0.52
1:C:314:LEU:O	1:C:356:VAL:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2706:MET:HG3	1:B:2707:LYS:HD2	1.92	0.52
1:D:33:VAL:HG23	1:D:35:ASP:HB2	1.90	0.52
1:A:2481:PRO:CA	1:A:2482:GLU:CA	2.87	0.52
1:B:1265:PRO:CA	1:B:1266:GLY:CA	2.87	0.52
1:D:303:PHE:CB	1:D:303:PHE:CD1	2.77	0.52
1:B:192:PRO:HB2	1:B:212:VAL:O	2.08	0.52
1:B:69:GLN:HG3	1:B:99:GLU:CD	2.29	0.52
1:C:415:MET:CA	1:C:417:LYS:HE2	2.34	0.52
1:D:2571:LEU:O	1:D:2575:PHE:HB3	2.09	0.52
1:B:2291:VAL:HG21	1:B:2324:VAL:HG11	1.91	0.52
1:B:2274:SER:H	1:B:2343:ARG:CZ	2.22	0.52
1:A:33:VAL:HG23	1:A:35:ASP:HB2	1.90	0.52
1:A:244:HIS:CD2	1:A:430:PHE:HB3	2.43	0.52
1:A:209:VAL:HG11	1:A:218:TRP:HZ2	1.74	0.52
1:B:11:ILE:HD13	1:B:60:LEU:HB3	1.91	0.52
1:A:2432:LYS:CA	1:A:2435:THR:HG23	2.39	0.52
1:A:2563:PHE:O	1:A:2567:VAL:HG12	2.09	0.52
1:B:2419:ASP:O	1:B:2422:TYR:HB3	2.08	0.52
1:C:2540:SER:OG	1:C:2541:HIS:N	2.42	0.52
1:C:2432:LYS:CA	1:C:2435:THR:HG23	2.39	0.52
1:D:2283:LEU:O	1:D:2287:MET:HG2	2.09	0.52
1:D:2524:LYS:HD2	1:D:2526:HIS:CD2	2.41	0.52
1:D:506:ARG:HD3	1:D:562:HIS:CE1	2.44	0.52
1:D:2274:SER:H	1:D:2343:ARG:CZ	2.22	0.52
1:B:36:ARG:CZ	1:B:200:LEU:HG	2.40	0.52
1:B:47:ASN:HA	1:B:291:PRO:HD3	1.89	0.52
1:B:542:GLY:HA2	1:B:549:PHE:CE1	2.44	0.52
1:C:880:ASN:CA	1:C:881:PHE:CA	2.88	0.52
1:C:162:TYR:H	1:C:185:ASN:H	1.57	0.52
1:B:2554:ARG:NH2	1:C:2519:GLU:HB2	2.24	0.52
1:D:2370:MET:HA	1:D:2373:VAL:HG22	1.91	0.52
1:A:317:GLU:HG3	1:A:318:VAL:O	2.08	0.52
1:A:6:SER:H	1:B:377:GLY:HA2	1.74	0.52
1:B:178:ILE:HG21	1:B:221:VAL:HG12	1.91	0.52
1:A:2540:SER:OG	1:A:2541:HIS:N	2.42	0.52
1:A:2588:VAL:O	1:A:2592:THR:HG23	2.09	0.52
1:B:2578:ILE:HA	1:B:2581:VAL:HG12	1.92	0.52
1:A:2519:GLU:HB2	1:D:2554:ARG:NH2	2.24	0.52
1:A:2274:SER:H	1:A:2343:ARG:CZ	2.21	0.52
1:C:506:ARG:HD3	1:C:562:HIS:CE1	2.44	0.52
1:A:36:ARG:CZ	1:A:200:LEU:HG	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2548:GLY:HA2	1:A:2574:PHE:HE2	1.75	0.52
1:C:209:VAL:HG11	1:C:218:TRP:HZ2	1.74	0.52
1:B:168:LYS:HD3	1:C:246:GLU:O	2.09	0.52
1:B:2563:PHE:O	1:B:2567:VAL:HG12	2.10	0.52
1:C:2419:ASP:O	1:C:2422:TYR:HB3	2.08	0.52
1:D:2291:VAL:HG21	1:D:2324:VAL:HG11	1.91	0.52
1:B:306:LYS:HA	1:B:313:TYR:HB3	1.90	0.52
1:D:36:ARG:CZ	1:D:200:LEU:HG	2.40	0.52
1:D:577:GLN:HA	1:D:580:PHE:CD2	2.44	0.52
1:A:2370:MET:HA	1:A:2373:VAL:HG22	1.91	0.52
1:C:1265:PRO:CA	1:C:1266:GLY:CA	2.87	0.52
1:B:564:GLN:OE1	1:B:564:GLN:N	2.42	0.52
1:A:246:GLU:O	1:D:168:LYS:HD3	2.09	0.52
1:D:66:TYR:OH	1:D:160:TRP:HB2	2.10	0.52
1:B:373:THR:HB	1:B:388:VAL:HG11	1.92	0.52
1:C:11:ILE:HD13	1:C:60:LEU:HB3	1.91	0.52
1:A:2571:LEU:O	1:A:2575:PHE:HB3	2.10	0.52
1:A:2578:ILE:HA	1:A:2581:VAL:HG12	1.92	0.52
1:B:2441:ILE:O	1:B:2444:THR:OG1	2.11	0.52
1:C:2571:LEU:O	1:C:2575:PHE:HB3	2.10	0.52
1:C:2285:VAL:O	1:C:2289:LEU:HB2	2.10	0.52
1:D:2706:MET:HG3	1:D:2707:LYS:HD2	1.92	0.52
1:C:36:ARG:CZ	1:C:200:LEU:HG	2.40	0.52
1:B:543:ASP:OD1	1:B:550:ARG:NH2	2.37	0.52
1:D:564:GLN:OE1	1:D:564:GLN:N	2.42	0.52
1:A:375:LEU:HG	1:D:177:VAL:HG21	1.92	0.52
1:B:120:VAL:HG13	1:B:161:PHE:H	1.75	0.52
1:B:181:LYS:HB2	1:B:219:LYS:HZ3	1.75	0.52
1:A:2585:ILE:O	1:A:2589:ILE:HG12	2.10	0.52
1:D:2285:VAL:O	1:D:2289:LEU:HB2	2.10	0.52
1:B:2288:ASN:HD22	1:B:2416:LEU:CD2	2.23	0.52
1:D:257:ARG:HH12	1:D:408:LYS:HD3	1.75	0.52
1:A:546:HIS:H	1:A:549:PHE:HE2	1.56	0.52
1:C:2365:LYS:O	1:C:2369:LEU:HB2	2.10	0.52
1:B:84:THR:HG21	1:B:88:LEU:HD13	1.91	0.52
1:D:194:HIS:O	1:D:209:VAL:HG22	2.10	0.52
1:A:11:ILE:HD13	1:A:60:LEU:HB3	1.91	0.52
1:D:373:THR:HB	1:D:388:VAL:HG11	1.92	0.52
1:D:405:PRO:O	1:D:417:LYS:NZ	2.43	0.52
1:A:21:GLY:H	1:A:24:ASN:HA	1.74	0.52
1:D:2578:ILE:HA	1:D:2581:VAL:HG12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2288:ASN:HD22	1:D:2416:LEU:CD2	2.23	0.52
1:A:2288:ASN:HD22	1:A:2416:LEU:CD2	2.23	0.52
1:D:314:LEU:O	1:D:356:VAL:N	2.42	0.52
1:A:2726:GLN:HA	1:A:2729:GLN:OE1	2.10	0.52
1:D:446:ALA:HB1	1:D:513:GLN:HE22	1.75	0.52
1:C:364:ILE:HA	1:C:367:ILE:HD11	1.91	0.52
1:B:2415:LEU:HA	1:B:2418:PHE:CE2	2.45	0.52
1:A:418:ILE:HG22	1:A:419:GLY:N	2.25	0.52
1:C:2563:PHE:O	1:C:2567:VAL:HG12	2.09	0.52
1:C:2524:LYS:HB3	1:C:2526:HIS:CD2	2.45	0.52
1:D:1265:PRO:CA	1:D:1266:GLY:CA	2.87	0.52
1:D:2693:ASN:OD1	1:D:2694:GLU:N	2.43	0.52
1:D:2415:LEU:HA	1:D:2418:PHE:CE2	2.45	0.52
1:A:373:THR:HB	1:A:388:VAL:HG11	1.93	0.51
1:A:253:CYS:SG	1:A:254:ASP:N	2.84	0.51
1:B:405:PRO:O	1:B:417:LYS:NZ	2.43	0.51
1:B:416:LEU:O	1:B:417:LYS:HD3	2.10	0.51
1:D:2563:PHE:C	1:D:2567:VAL:HG12	2.30	0.51
1:C:2451:LEU:O	1:C:2454:LEU:HG	2.09	0.51
1:A:2283:LEU:O	1:A:2287:MET:HG2	2.10	0.51
1:B:483:PHE:HD2	1:B:506:ARG:CZ	2.23	0.51
1:B:880:ASN:CA	1:B:881:PHE:CA	2.88	0.51
1:D:880:ASN:CA	1:D:881:PHE:CA	2.88	0.51
1:B:364:ILE:HA	1:B:367:ILE:HD11	1.92	0.51
1:C:2574:PHE:HA	1:C:2577:VAL:HG12	1.92	0.51
1:D:166:PHE:CG	1:D:167:TYR:N	2.78	0.51
1:D:364:ILE:HA	1:D:367:ILE:HD11	1.92	0.51
1:C:185:ASN:CB	1:C:191:GLN:HG3	2.40	0.51
1:C:178:ILE:HB	1:D:376:ARG:HH12	1.74	0.51
1:B:66:TYR:OH	1:B:160:TRP:HB2	2.10	0.51
1:C:416:LEU:O	1:C:417:LYS:HD3	2.11	0.51
1:B:2583:ASN:OD1	1:B:2584:LEU:N	2.44	0.51
1:C:2283:LEU:O	1:C:2287:MET:HG2	2.10	0.51
1:B:2285:VAL:O	1:B:2289:LEU:HB2	2.10	0.51
1:A:2326:ALA:HA	1:A:2329:LYS:CE	2.39	0.51
1:D:483:PHE:HD2	1:D:506:ARG:CZ	2.23	0.51
1:A:558:ARG:O	1:A:561:ARG:HB3	2.11	0.51
1:D:261:HIS:ND1	1:D:355:LEU:HD11	2.26	0.51
1:A:542:GLY:HA2	1:A:549:PHE:CE1	2.45	0.51
1:A:2706:MET:HG3	1:A:2707:LYS:HD2	1.92	0.51
1:B:2365:LYS:O	1:B:2369:LEU:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:166:PHE:CG	1:C:167:TYR:N	2.79	0.51
1:A:199:GLN:HB2	1:A:206:CYS:HB3	1.92	0.51
1:A:130:LYS:NZ	1:A:153:GLU:OE1	2.35	0.51
1:A:185:ASN:CB	1:A:191:GLN:HG3	2.40	0.51
1:B:21:GLY:H	1:B:24:ASN:HA	1.75	0.51
1:C:253:CYS:SG	1:C:254:ASP:N	2.84	0.51
1:C:298:TYR:O	1:C:301:SER:OG	2.15	0.51
1:C:2585:ILE:O	1:C:2589:ILE:HG12	2.10	0.51
1:B:2283:LEU:O	1:B:2287:MET:HG2	2.10	0.51
1:A:2285:VAL:O	1:A:2289:LEU:HB2	2.10	0.51
1:D:2458:VAL:HG13	1:D:2569:TYR:HE1	1.76	0.51
1:B:558:ARG:O	1:B:561:ARG:HB3	2.10	0.51
1:C:542:GLY:HA2	1:C:549:PHE:CE1	2.45	0.51
1:C:199:GLN:HB2	1:C:206:CYS:HB3	1.92	0.51
1:A:1265:PRO:CA	1:A:1266:GLY:CA	2.87	0.51
1:B:2693:ASN:OD1	1:B:2694:GLU:N	2.43	0.51
1:A:196:SER:O	1:A:207:ASN:ND2	2.44	0.51
1:D:400:HIS:CE1	1:D:422:PRO:HB3	2.45	0.51
1:B:185:ASN:HB2	1:B:191:GLN:H	1.74	0.51
1:D:2433:SER:OG	1:D:2434:VAL:N	2.42	0.51
1:C:2288:ASN:HD22	1:C:2416:LEU:CD2	2.24	0.51
1:B:2289:LEU:HA	1:B:2417:LEU:HD11	1.92	0.51
1:D:558:ARG:O	1:D:561:ARG:HB3	2.11	0.51
1:B:2726:GLN:HA	1:B:2729:GLN:OE1	2.11	0.51
1:B:2730:LYS:HD3	1:C:289:HIS:NE2	2.26	0.51
1:A:2365:LYS:O	1:A:2369:LEU:HB2	2.10	0.51
1:A:2574:PHE:HA	1:A:2577:VAL:HG12	1.92	0.51
1:A:880:ASN:CA	1:A:881:PHE:CA	2.88	0.51
1:A:66:TYR:OH	1:A:160:TRP:HB2	2.10	0.51
1:C:117:TYR:CD2	1:C:176:VAL:N	2.78	0.51
1:C:168:LYS:HD3	1:D:246:GLU:O	2.11	0.51
1:C:6:SER:H	1:D:377:GLY:HA2	1.75	0.51
1:C:398:TRP:N	1:C:422:PRO:HG2	2.23	0.51
1:C:2413:TYR:O	1:C:2416:LEU:HB3	2.11	0.51
1:C:2289:LEU:HA	1:C:2417:LEU:HD11	1.91	0.51
1:A:483:PHE:HD2	1:A:506:ARG:CZ	2.24	0.51
1:D:120:VAL:HG13	1:D:161:PHE:H	1.75	0.51
1:D:209:VAL:HG11	1:D:218:TRP:CZ2	2.46	0.51
1:B:2432:LYS:CA	1:B:2435:THR:HG23	2.41	0.51
1:D:2559:GLU:O	1:D:2561:PRO:HD3	2.11	0.51
1:B:253:CYS:SG	1:B:254:ASP:N	2.84	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2603:LYS:N	1:A:2604:GLU:OE1	2.43	0.51
1:A:2524:LYS:HB3	1:A:2526:HIS:CD2	2.46	0.51
1:C:2457:ILE:O	1:C:2461:LEU:HB2	2.11	0.51
1:A:47:ASN:HA	1:A:291:PRO:HD3	1.92	0.51
1:D:482:TYR:CE1	1:D:488:THR:HG23	2.46	0.51
1:D:2365:LYS:O	1:D:2369:LEU:HB2	2.10	0.51
1:A:364:ILE:HA	1:A:367:ILE:HD11	1.92	0.51
1:C:564:GLN:OE1	1:C:564:GLN:N	2.42	0.51
1:D:11:ILE:HD13	1:D:60:LEU:HB3	1.91	0.51
1:A:131:TYR:N	1:A:152:ASP:O	2.37	0.51
1:A:181:LYS:HB2	1:A:219:LYS:HZ3	1.75	0.51
1:A:178:ILE:HG21	1:A:221:VAL:HG12	1.93	0.51
1:C:66:TYR:OH	1:C:160:TRP:HB2	2.10	0.51
1:B:194:HIS:O	1:B:209:VAL:HG22	2.10	0.51
1:B:177:VAL:HG21	1:C:375:LEU:HG	1.92	0.51
1:B:2329:LYS:HG3	1:B:2330:PRO:CD	2.40	0.51
1:A:2423:ARG:O	1:A:2426:THR:HG22	2.11	0.51
1:D:432:ILE:HG22	1:D:433:VAL:O	2.11	0.51
1:B:497:VAL:HG12	1:B:501:LYS:HG3	1.93	0.51
1:B:497:VAL:O	1:B:501:LYS:HG3	2.11	0.51
1:A:238:ASP:OD1	1:A:238:ASP:N	2.44	0.51
1:B:446:ALA:HB1	1:B:513:GLN:HE22	1.75	0.51
1:A:499:PHE:O	1:A:503:ASN:ND2	2.44	0.51
1:A:2721:ASP:O	1:A:2724:THR:HB	2.11	0.51
1:C:2548:GLY:HA2	1:C:2574:PHE:CE2	2.46	0.51
1:A:117:TYR:CD2	1:A:176:VAL:N	2.78	0.51
1:C:117:TYR:CE1	1:C:181:LYS:HD2	2.46	0.51
1:C:10:HIS:NE2	1:C:177:VAL:HA	2.26	0.51
1:C:444:ASP:O	1:C:448:ASP:HB3	2.11	0.51
1:D:391:ARG:HD3	1:D:398:TRP:HE3	1.73	0.51
1:C:2559:GLU:O	1:C:2561:PRO:HD3	2.10	0.51
1:D:2428:LEU:CD2	1:D:2429:ASN:ND2	2.72	0.51
1:C:2329:LYS:HG3	1:C:2330:PRO:CD	2.41	0.51
1:C:2423:ARG:O	1:C:2426:THR:HG22	2.11	0.51
1:D:2329:LYS:HG3	1:D:2330:PRO:CD	2.40	0.51
1:B:2458:VAL:HG13	1:B:2569:TYR:CE1	2.46	0.51
1:B:499:PHE:O	1:B:503:ASN:ND2	2.44	0.51
1:B:104:GLU:O	1:B:108:ARG:HG3	2.11	0.51
1:D:104:GLU:O	1:D:108:ARG:HG3	2.11	0.51
1:A:2548:GLY:HA2	1:A:2574:PHE:CE2	2.46	0.51
1:D:191:GLN:HA	1:D:192:PRO:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:168:LYS:HZ2	1:B:247:GLN:HA	1.75	0.51
1:B:400:HIS:CE1	1:B:422:PRO:HB3	2.45	0.51
1:C:373:THR:HB	1:C:388:VAL:HG11	1.93	0.51
1:D:2326:ALA:CA	1:D:2329:LYS:HE2	2.27	0.51
1:D:2289:LEU:HA	1:D:2417:LEU:HD11	1.92	0.51
1:C:312:HIS:N	1:C:358:VAL:O	2.44	0.51
1:C:2548:GLY:HA2	1:C:2574:PHE:HE2	1.75	0.51
1:B:2574:PHE:HA	1:B:2577:VAL:HG12	1.93	0.51
1:D:86:ALA:HA	1:D:89:LEU:HB2	1.93	0.51
1:D:117:TYR:CE1	1:D:181:LYS:HD2	2.46	0.51
1:A:10:HIS:NE2	1:A:177:VAL:HA	2.26	0.51
1:C:191:GLN:HA	1:C:192:PRO:O	2.11	0.51
1:D:416:LEU:O	1:D:417:LYS:HD3	2.10	0.51
1:B:209:VAL:HG11	1:B:218:TRP:CZ2	2.46	0.51
1:B:438:ALA:O	1:B:441:ARG:HB3	2.11	0.51
1:C:405:PRO:O	1:C:417:LYS:NZ	2.44	0.51
1:D:2515:LEU:HB3	1:D:2516:PRO:HD3	1.93	0.51
1:D:497:VAL:O	1:D:501:LYS:HG3	2.11	0.51
1:B:2415:LEU:HA	1:B:2418:PHE:CZ	2.46	0.51
1:D:2415:LEU:HA	1:D:2418:PHE:CZ	2.46	0.51
1:D:2389:ASP:CA	1:D:2390:VAL:CA	2.89	0.51
1:A:400:HIS:CE1	1:A:422:PRO:HB3	2.46	0.50
1:A:185:ASN:HB2	1:A:191:GLN:H	1.76	0.50
1:C:2563:PHE:C	1:C:2567:VAL:HG12	2.31	0.50
1:C:2578:ILE:HA	1:C:2581:VAL:HG12	1.92	0.50
1:D:2326:ALA:HA	1:D:2329:LYS:HE2	1.93	0.50
1:B:444:ASP:O	1:B:448:ASP:HB3	2.11	0.50
1:B:2524:LYS:HB3	1:B:2526:HIS:CD2	2.47	0.50
1:A:2515:LEU:HB3	1:A:2516:PRO:HD3	1.93	0.50
1:C:483:PHE:HD2	1:C:506:ARG:CZ	2.24	0.50
1:A:2353:THR:HA	1:A:2354:LEU:HD23	1.94	0.50
1:B:482:TYR:CE1	1:B:488:THR:HG23	2.46	0.50
1:A:2693:ASN:OD1	1:A:2694:GLU:N	2.44	0.50
1:A:405:PRO:O	1:A:417:LYS:NZ	2.44	0.50
1:D:10:HIS:NE2	1:D:176:VAL:O	2.39	0.50
1:A:117:TYR:CE1	1:A:181:LYS:HD2	2.46	0.50
1:B:370:LEU:HD23	1:B:390:LEU:HD13	1.93	0.50
1:C:55:ASP:HA	1:C:127:LYS:HG2	1.92	0.50
1:C:178:ILE:HG21	1:C:221:VAL:HG12	1.93	0.50
1:C:196:SER:O	1:C:207:ASN:ND2	2.44	0.50
1:B:185:ASN:CB	1:B:191:GLN:HG3	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:253:CYS:SG	1:D:254:ASP:N	2.84	0.50
1:C:558:ARG:O	1:C:561:ARG:HB3	2.11	0.50
1:D:546:HIS:H	1:D:549:PHE:HE2	1.58	0.50
1:C:2706:MET:HG3	1:C:2707:LYS:HD2	1.92	0.50
1:A:416:LEU:O	1:A:417:LYS:HD3	2.11	0.50
1:A:398:TRP:N	1:A:422:PRO:HG2	2.24	0.50
1:A:178:ILE:HB	1:B:376:ARG:HH12	1.76	0.50
1:C:209:VAL:HG11	1:C:218:TRP:CZ2	2.47	0.50
1:D:370:LEU:HD23	1:D:390:LEU:HD13	1.93	0.50
1:C:246:GLU:H	1:C:428:GLU:CD	2.14	0.50
1:D:444:ASP:O	1:D:448:ASP:HB3	2.11	0.50
1:C:2515:LEU:HB3	1:C:2516:PRO:HD3	1.93	0.50
1:D:2339:SER:O	1:D:2342:LEU:HG	2.11	0.50
1:B:261:HIS:ND1	1:B:355:LEU:HD11	2.26	0.50
1:C:47:ASN:HA	1:C:291:PRO:HD3	1.92	0.50
1:D:2726:GLN:HA	1:D:2729:GLN:OE1	2.11	0.50
1:A:446:ALA:HB1	1:A:513:GLN:HE22	1.76	0.50
1:C:499:PHE:O	1:C:503:ASN:ND2	2.43	0.50
1:A:482:TYR:CE1	1:A:488:THR:HG23	2.47	0.50
1:C:482:TYR:CE1	1:C:488:THR:HG23	2.47	0.50
1:A:376:ARG:HH12	1:D:178:ILE:HB	1.76	0.50
1:A:191:GLN:HA	1:A:192:PRO:O	2.11	0.50
1:C:185:ASN:HB2	1:C:191:GLN:H	1.76	0.50
1:D:389:ARG:NH2	1:D:426:ASP:O	2.44	0.50
1:B:117:TYR:CE1	1:B:181:LYS:HD2	2.46	0.50
1:D:2583:ASN:OD1	1:D:2584:LEU:N	2.44	0.50
1:B:2413:TYR:O	1:B:2416:LEU:HB3	2.11	0.50
1:A:2333:ILE:HD13	1:A:2380:THR:OG1	2.11	0.50
1:B:2339:SER:O	1:B:2342:LEU:HG	2.12	0.50
1:C:2458:VAL:HG13	1:C:2569:TYR:CE1	2.46	0.50
1:C:2726:GLN:HA	1:C:2729:GLN:OE1	2.10	0.50
1:A:2559:GLU:O	1:A:2561:PRO:HD3	2.10	0.50
1:A:1302:HIS:CA	1:A:1303:GLY:CA	2.89	0.50
1:A:249:LYS:HE3	1:A:264:LEU:CD2	2.42	0.50
1:D:27:ILE:HG23	1:D:39:VAL:HG12	1.93	0.50
1:A:168:LYS:HD3	1:B:246:GLU:O	2.11	0.50
1:B:432:ILE:HG22	1:B:433:VAL:O	2.11	0.50
1:C:183:VAL:O	1:C:191:GLN:NE2	2.45	0.50
1:C:438:ALA:O	1:C:441:ARG:HB3	2.12	0.50
1:B:178:ILE:HB	1:C:376:ARG:HH12	1.76	0.50
1:B:2423:ARG:O	1:B:2426:THR:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2707:LYS:HE2	1:D:2712:LEU:HD13	1.94	0.50
1:B:2353:THR:HA	1:B:2354:LEU:HD23	1.94	0.50
1:B:166:PHE:CG	1:B:167:TYR:N	2.78	0.50
1:C:2389:ASP:CA	1:C:2390:VAL:CA	2.90	0.50
1:A:246:GLU:H	1:A:428:GLU:CD	2.14	0.50
1:A:444:ASP:O	1:A:448:ASP:HB3	2.11	0.50
1:B:191:GLN:HA	1:B:192:PRO:O	2.11	0.50
1:B:2563:PHE:C	1:B:2567:VAL:HG12	2.32	0.50
1:C:2540:SER:HG	1:C:2541:HIS:H	1.60	0.50
1:D:2433:SER:OG	1:D:2593:PHE:CE1	2.64	0.50
1:B:2326:ALA:CA	1:B:2329:LYS:HE2	2.27	0.50
1:A:2329:LYS:HG2	1:A:2330:PRO:HD3	1.94	0.50
1:D:499:PHE:O	1:D:503:ASN:ND2	2.44	0.50
1:C:497:VAL:HG12	1:C:501:LYS:HG3	1.94	0.50
1:A:259:LYS:HB3	1:A:261:HIS:NE2	2.27	0.50
1:B:257:ARG:HH12	1:B:408:LYS:HD3	1.75	0.50
1:B:2548:GLY:HA2	1:B:2574:PHE:HE2	1.77	0.50
1:A:479:ASP:HA	1:A:482:TYR:CE2	2.46	0.50
1:D:2548:GLY:HA2	1:D:2574:PHE:CE2	2.46	0.50
1:D:136:LYS:N	1:D:137:ARG:HB3	2.27	0.50
1:D:398:TRP:N	1:D:422:PRO:HG2	2.25	0.50
1:C:400:HIS:CE1	1:C:422:PRO:HB3	2.46	0.50
1:B:2524:LYS:HD2	1:B:2526:HIS:CD2	2.41	0.50
1:D:497:VAL:HG12	1:D:501:LYS:HG3	1.93	0.50
1:C:518:GLN:H	1:C:518:GLN:CD	2.14	0.50
1:C:2339:SER:O	1:C:2342:LEU:HG	2.12	0.50
1:C:2458:VAL:HG13	1:C:2569:TYR:HE1	1.77	0.50
1:A:497:VAL:O	1:A:501:LYS:HG3	2.12	0.50
1:D:2353:THR:HA	1:D:2354:LEU:HD23	1.94	0.50
1:C:446:ALA:HB1	1:C:513:GLN:HE22	1.77	0.50
1:B:2559:GLU:O	1:B:2561:PRO:HD3	2.10	0.50
1:A:2714:GLY:O	1:A:2718:GLU:HG2	2.12	0.50
1:A:2389:ASP:CA	1:A:2390:VAL:CA	2.89	0.50
1:B:2389:ASP:CA	1:B:2390:VAL:CA	2.89	0.50
1:B:249:LYS:HE3	1:B:264:LEU:CD2	2.42	0.50
1:B:389:ARG:NH2	1:B:426:ASP:O	2.44	0.50
1:C:194:HIS:O	1:C:209:VAL:HG22	2.11	0.50
1:A:2563:PHE:C	1:A:2567:VAL:HG12	2.31	0.50
1:A:2413:TYR:O	1:A:2416:LEU:HB3	2.11	0.50
1:C:2603:LYS:N	1:C:2604:GLU:OE1	2.43	0.50
1:D:518:GLN:CD	1:D:518:GLN:H	2.14	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2458:VAL:HG13	1:D:2569:TYR:CE1	2.46	0.50
1:B:2458:VAL:HG13	1:B:2569:TYR:HE1	1.75	0.50
1:C:2353:THR:HA	1:C:2354:LEU:HD23	1.93	0.50
1:C:238:ASP:OD1	1:C:238:ASP:N	2.43	0.50
1:A:543:ASP:OD1	1:A:550:ARG:NH2	2.37	0.50
1:B:364:ILE:HG23	1:B:367:ILE:HG13	1.94	0.50
1:A:476:LEU:O	1:A:479:ASP:HB2	2.12	0.50
1:C:1302:HIS:CA	1:C:1303:GLY:CA	2.89	0.50
1:A:166:PHE:CG	1:A:167:TYR:N	2.79	0.50
1:D:1302:HIS:CA	1:D:1303:GLY:CA	2.89	0.50
1:B:285:GLU:N	1:B:303:PHE:CE2	2.80	0.50
1:A:55:ASP:HA	1:A:127:LYS:HG2	1.92	0.50
1:B:124:LEU:HD12	1:B:131:TYR:HB2	1.94	0.50
1:B:2431:ILE:HD12	1:B:2431:ILE:N	2.08	0.50
1:D:2563:PHE:O	1:D:2567:VAL:HG12	2.12	0.50
1:B:2324:VAL:C	1:B:2326:ALA:H	2.16	0.50
1:C:2721:ASP:O	1:C:2724:THR:HB	2.11	0.50
1:A:289:HIS:NE2	1:D:2730:LYS:HD3	2.26	0.50
1:A:438:ALA:O	1:A:441:ARG:HB3	2.12	0.49
1:C:131:TYR:O	1:C:152:ASP:N	2.45	0.49
1:C:136:LYS:N	1:C:137:ARG:HB3	2.28	0.49
1:C:240:VAL:HG22	1:C:241:ARG:N	2.27	0.49
1:C:309:ALA:HB3	1:C:310:THR:HA	1.94	0.49
1:C:98:LEU:HD12	1:C:101:LYS:HZ1	1.77	0.49
1:D:424:LYS:HD2	1:D:425:GLU:HG2	1.94	0.49
1:C:370:LEU:HD23	1:C:390:LEU:HD13	1.95	0.49
1:D:21:GLY:H	1:D:24:ASN:HA	1.76	0.49
1:D:2333:ILE:HD13	1:D:2380:THR:OG1	2.12	0.49
1:D:2423:ARG:O	1:D:2426:THR:HG22	2.12	0.49
1:D:240:VAL:HG22	1:D:241:ARG:N	2.27	0.49
1:A:2339:SER:O	1:A:2342:LEU:HG	2.12	0.49
1:C:497:VAL:O	1:C:501:LYS:HG3	2.12	0.49
1:D:476:LEU:O	1:D:479:ASP:HB2	2.12	0.49
1:C:2693:ASN:OD1	1:C:2694:GLU:N	2.44	0.49
1:B:1302:HIS:CA	1:B:1303:GLY:CA	2.89	0.49
1:D:124:LEU:HD12	1:D:131:TYR:HB2	1.94	0.49
1:A:194:HIS:O	1:A:209:VAL:HG22	2.12	0.49
1:B:390:LEU:HD23	1:B:399:VAL:HG21	1.94	0.49
1:D:246:GLU:H	1:D:428:GLU:CD	2.14	0.49
1:A:2458:VAL:HG13	1:A:2569:TYR:CE1	2.46	0.49
1:D:2459:GLY:O	1:D:2461:LEU:N	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:466:THR:OG1	1:C:469:GLU:HG3	2.12	0.49
1:C:2415:LEU:HA	1:C:2418:PHE:CE2	2.47	0.49
1:B:2721:ASP:O	1:B:2724:THR:HB	2.11	0.49
1:A:183:VAL:O	1:A:191:GLN:NE2	2.45	0.49
1:A:209:VAL:HG11	1:A:218:TRP:CZ2	2.47	0.49
1:C:135:ASN:HB2	1:C:138:LEU:O	2.12	0.49
1:B:136:LYS:N	1:B:137:ARG:HB3	2.27	0.49
1:B:97:ASP:OD1	1:B:98:LEU:N	2.46	0.49
1:D:2428:LEU:CD1	1:D:2429:ASN:ND2	2.73	0.49
1:A:312:HIS:N	1:A:358:VAL:O	2.44	0.49
1:B:2515:LEU:HB3	1:B:2516:PRO:HD3	1.93	0.49
1:B:518:GLN:H	1:B:518:GLN:CD	2.14	0.49
1:D:2524:LYS:HB3	1:D:2526:HIS:CD2	2.47	0.49
1:C:2712:LEU:HD13	1:D:2707:LYS:HE2	1.94	0.49
1:A:2712:LEU:HD13	1:B:2707:LYS:HE2	1.94	0.49
1:C:543:ASP:OD1	1:C:550:ARG:NH2	2.36	0.49
1:C:364:ILE:HG23	1:C:367:ILE:HG13	1.95	0.49
1:D:2574:PHE:HA	1:D:2577:VAL:HG12	1.93	0.49
1:A:458:GLY:HA2	1:A:461:GLU:OE2	2.13	0.49
1:A:251:LEU:HG	1:A:264:LEU:HB2	1.94	0.49
1:D:135:ASN:ND2	1:D:148:ARG:H	2.10	0.49
1:D:185:ASN:CB	1:D:191:GLN:HG3	2.42	0.49
1:D:438:ALA:O	1:D:441:ARG:HB3	2.11	0.49
1:A:131:TYR:O	1:A:152:ASP:N	2.45	0.49
1:C:160:TRP:CD1	1:C:185:ASN:O	2.66	0.49
1:B:2437:ASN:CB	1:B:2592:THR:HG22	2.33	0.49
1:B:2326:ALA:HA	1:B:2329:LYS:HE2	1.93	0.49
1:D:507:GLN:HB2	1:D:567:TYR:HE2	1.78	0.49
1:A:2457:ILE:O	1:A:2461:LEU:HB2	2.11	0.49
1:A:364:ILE:HG23	1:A:367:ILE:HG13	1.94	0.49
1:C:476:LEU:O	1:C:479:ASP:HB2	2.12	0.49
1:B:2586:PHE:HE2	1:D:2586:PHE:HE2	1.60	0.49
1:C:2333:ILE:HD13	1:C:2380:THR:OG1	2.12	0.49
1:D:2413:TYR:O	1:D:2416:LEU:HB3	2.12	0.49
1:B:2333:ILE:HD13	1:B:2380:THR:OG1	2.13	0.49
1:B:2603:LYS:N	1:B:2604:GLU:OE1	2.45	0.49
1:A:545:ARG:HG3	1:A:549:PHE:CE2	2.47	0.49
1:B:2712:LEU:HD13	1:C:2707:LYS:HE2	1.94	0.49
1:C:2730:LYS:HD3	1:D:289:HIS:NE2	2.27	0.49
1:D:228:ASP:OD1	1:D:229:ASN:N	2.45	0.49
1:C:228:ASP:OD1	1:C:229:ASN:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2721:ASP:O	1:D:2724:THR:HB	2.11	0.49
1:D:2587:GLY:HA2	1:D:2590:ILE:HG12	1.95	0.49
1:A:2308:HIS:O	1:A:2308:HIS:ND1	2.46	0.49
1:A:415:MET:CA	1:A:417:LYS:HE2	2.34	0.49
1:B:389:ARG:HD2	1:B:398:TRP:HE1	1.78	0.49
1:B:424:LYS:HD2	1:B:425:GLU:HG2	1.94	0.49
1:B:160:TRP:CD1	1:B:185:ASN:O	2.65	0.49
1:B:27:ILE:HG23	1:B:39:VAL:HG12	1.93	0.49
1:D:2288:ASN:HD22	1:D:2416:LEU:HD23	1.78	0.49
1:B:240:VAL:HG22	1:B:241:ARG:N	2.27	0.49
1:D:312:HIS:N	1:D:358:VAL:O	2.46	0.49
1:D:545:ARG:HG3	1:D:549:PHE:CE2	2.47	0.49
1:D:479:ASP:HA	1:D:482:TYR:CE2	2.48	0.49
1:D:160:TRP:CD1	1:D:185:ASN:O	2.65	0.49
1:A:94:HIS:O	1:A:98:LEU:HB2	2.13	0.49
1:B:251:LEU:HG	1:B:264:LEU:HB2	1.94	0.49
1:C:251:LEU:HG	1:C:264:LEU:HB2	1.94	0.49
1:B:2586:PHE:CD2	1:C:2586:PHE:CE2	2.80	0.49
1:D:358:VAL:HG12	1:D:359:PRO:O	2.13	0.49
1:B:2459:GLY:O	1:B:2461:LEU:N	2.41	0.49
1:C:259:LYS:HB3	1:C:261:HIS:NE2	2.26	0.49
1:B:259:LYS:HB3	1:B:261:HIS:NE2	2.28	0.49
1:A:104:GLU:HA	1:A:107:ASN:ND2	2.28	0.49
1:A:104:GLU:O	1:A:108:ARG:HG3	2.12	0.49
1:C:104:GLU:O	1:C:108:ARG:HG3	2.12	0.49
1:A:497:VAL:HG12	1:A:501:LYS:HG3	1.94	0.49
1:A:228:ASP:OD1	1:A:229:ASN:N	2.46	0.49
1:B:2548:GLY:HA2	1:B:2574:PHE:CE2	2.46	0.49
1:B:476:LEU:O	1:B:479:ASP:HB2	2.12	0.49
1:D:2308:HIS:O	1:D:2308:HIS:ND1	2.46	0.49
1:A:432:ILE:HG22	1:A:433:VAL:O	2.12	0.49
1:D:196:SER:O	1:D:207:ASN:ND2	2.46	0.49
1:B:246:GLU:H	1:B:428:GLU:CD	2.14	0.49
1:C:97:ASP:OD1	1:C:98:LEU:N	2.46	0.49
1:C:2583:ASN:OD1	1:C:2584:LEU:N	2.45	0.49
1:B:127:LYS:NZ	1:B:444:ASP:OD2	2.39	0.49
1:D:466:THR:OG1	1:D:469:GLU:HG3	2.13	0.49
1:A:2730:LYS:HD3	1:B:289:HIS:NE2	2.27	0.49
1:B:572:GLU:N	1:B:572:GLU:OE1	2.38	0.49
1:D:364:ILE:HG23	1:D:367:ILE:HG13	1.95	0.49
1:B:86:ALA:HA	1:B:89:LEU:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2714:GLY:O	1:C:2718:GLU:HG2	2.12	0.49
1:C:2308:HIS:ND1	1:C:2308:HIS:O	2.46	0.49
1:A:97:ASP:OD1	1:A:98:LEU:N	2.46	0.49
1:B:398:TRP:N	1:B:422:PRO:HG2	2.25	0.49
1:D:2274:SER:O	1:D:2277:SER:HB2	2.13	0.49
1:B:545:ARG:HG3	1:B:549:PHE:CE2	2.47	0.49
1:A:507:GLN:HB2	1:A:567:TYR:HE2	1.78	0.49
1:C:545:ARG:HG3	1:C:549:PHE:CE2	2.47	0.49
1:A:160:TRP:CD1	1:A:185:ASN:O	2.66	0.49
1:A:28:SER:OG	1:A:29:THR:N	2.46	0.49
1:D:390:LEU:HD23	1:D:399:VAL:HG21	1.94	0.49
1:B:10:HIS:NE2	1:B:177:VAL:HA	2.28	0.49
1:B:98:LEU:HD12	1:B:101:LYS:HZ1	1.77	0.49
1:C:2291:VAL:HG21	1:C:2324:VAL:HG11	1.94	0.49
1:A:314:LEU:HD23	1:A:366:SER:HB2	1.95	0.49
1:C:358:VAL:HG12	1:C:359:PRO:O	2.13	0.49
1:B:515:ILE:HA	1:B:518:GLN:HE22	1.78	0.49
1:A:2458:VAL:HG13	1:A:2569:TYR:HE1	1.77	0.49
1:B:466:THR:OG1	1:B:469:GLU:HG3	2.13	0.49
1:A:466:THR:OG1	1:A:469:GLU:HG3	2.12	0.49
1:B:228:ASP:OD1	1:B:229:ASN:N	2.45	0.49
1:A:2415:LEU:HA	1:A:2418:PHE:CE2	2.48	0.49
1:C:458:GLY:HA2	1:C:461:GLU:OE2	2.13	0.49
1:D:285:GLU:N	1:D:303:PHE:CE2	2.80	0.48
1:A:370:LEU:HD23	1:A:390:LEU:HD13	1.95	0.48
1:A:135:ASN:HB2	1:A:138:LEU:O	2.12	0.48
1:A:98:LEU:HD12	1:A:101:LYS:HZ1	1.78	0.48
1:B:45:ASP:HB3	1:B:48:ASN:CB	2.43	0.48
1:B:6:SER:O	1:C:376:ARG:HG3	2.13	0.48
1:A:2291:VAL:HG21	1:A:2324:VAL:HG11	1.94	0.48
1:B:309:ALA:HB3	1:B:310:THR:HA	1.95	0.48
1:B:314:LEU:HD23	1:B:366:SER:HB2	1.95	0.48
1:C:432:ILE:HG22	1:C:433:VAL:O	2.13	0.48
1:B:104:GLU:HA	1:B:107:ASN:ND2	2.28	0.48
1:C:2703:GLU:O	1:C:2707:LYS:HG2	2.13	0.48
1:D:231:ASP:H	1:D:384:ARG:NH2	2.11	0.48
1:C:479:ASP:HA	1:C:482:TYR:CE2	2.46	0.48
1:D:94:HIS:O	1:D:98:LEU:HB2	2.12	0.48
1:A:136:LYS:N	1:A:137:ARG:HB3	2.27	0.48
1:A:139:PRO:HG2	1:A:148:ARG:NH1	2.28	0.48
1:A:160:TRP:CG	1:A:187:VAL:HG13	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:139:PRO:HG2	1:C:148:ARG:NH1	2.28	0.48
1:C:117:TYR:CG	1:C:176:VAL:HG23	2.48	0.48
1:B:135:ASN:HB2	1:B:138:LEU:O	2.12	0.48
1:B:183:VAL:O	1:B:191:GLN:NE2	2.46	0.48
1:B:162:TYR:N	1:B:185:ASN:H	2.11	0.48
1:B:94:HIS:O	1:B:98:LEU:HB2	2.12	0.48
1:D:2378:THR:HA	1:D:2412:PHE:CE1	2.48	0.48
1:C:484:VAL:HA	1:C:562:HIS:CE1	2.48	0.48
1:B:2703:GLU:O	1:B:2707:LYS:HG2	2.14	0.48
1:D:238:ASP:OD1	1:D:238:ASP:N	2.46	0.48
1:A:424:LYS:HD2	1:A:425:GLU:HG2	1.94	0.48
1:D:117:TYR:CG	1:D:176:VAL:HG23	2.48	0.48
1:D:10:HIS:NE2	1:D:177:VAL:HA	2.28	0.48
1:D:29:THR:OG1	1:D:38:VAL:N	2.31	0.48
1:A:117:TYR:CG	1:A:176:VAL:HG23	2.48	0.48
1:A:135:ASN:ND2	1:A:148:ARG:H	2.11	0.48
1:C:177:VAL:HG21	1:D:375:LEU:HG	1.94	0.48
1:B:160:TRP:CG	1:B:187:VAL:HG13	2.48	0.48
1:C:2535:ILE:HG13	1:C:2536:VAL:N	2.28	0.48
1:D:314:LEU:HD23	1:D:366:SER:HB2	1.96	0.48
1:D:484:VAL:HA	1:D:562:HIS:CE1	2.48	0.48
1:A:2274:SER:O	1:A:2277:SER:HB2	2.13	0.48
1:B:484:VAL:HA	1:B:562:HIS:CE1	2.48	0.48
1:A:86:ALA:HA	1:A:89:LEU:HB2	1.94	0.48
1:D:98:LEU:HD12	1:D:101:LYS:HZ1	1.78	0.48
1:A:136:LYS:CB	1:A:188:ASN:HD22	2.26	0.48
1:A:309:ALA:HB3	1:A:310:THR:HA	1.95	0.48
1:C:136:LYS:CB	1:C:188:ASN:HD22	2.26	0.48
1:C:94:HIS:O	1:C:98:LEU:HB2	2.13	0.48
1:B:135:ASN:ND2	1:B:148:ARG:H	2.10	0.48
1:C:424:LYS:HD2	1:C:425:GLU:HG2	1.94	0.48
1:A:2432:LYS:CA	1:A:2435:THR:CG2	2.91	0.48
1:C:2437:ASN:O	1:C:2441:ILE:HG13	2.14	0.48
1:B:2732:ARG:CA	1:B:2733:ILE:CA	2.92	0.48
1:A:2703:GLU:O	1:A:2707:LYS:HG2	2.13	0.48
1:B:479:ASP:HA	1:B:482:TYR:CE2	2.48	0.48
1:C:86:ALA:HA	1:C:89:LEU:HB2	1.95	0.48
1:D:2560:GLU:OE1	1:D:2560:GLU:N	2.43	0.48
1:A:389:ARG:NH2	1:A:426:ASP:O	2.47	0.48
1:D:160:TRP:CG	1:D:187:VAL:HG13	2.48	0.48
1:D:251:LEU:HG	1:D:264:LEU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2583:ASN:OD1	1:A:2584:LEU:N	2.45	0.48
1:B:312:HIS:N	1:B:358:VAL:O	2.46	0.48
1:D:2381:ARG:HG3	1:D:2412:PHE:CZ	2.49	0.48
1:A:518:GLN:H	1:A:518:GLN:CD	2.14	0.48
1:B:507:GLN:HB2	1:B:567:TYR:HE2	1.78	0.48
1:D:200:LEU:HD12	1:D:202:ASP:H	1.79	0.48
1:D:2702:LEU:HA	1:D:2705:THR:HG22	1.96	0.48
1:B:2587:GLY:HA2	1:B:2590:ILE:HG12	1.95	0.48
1:B:458:GLY:HA2	1:B:461:GLU:OE2	2.13	0.48
1:B:2239:LYS:CA	1:B:2240:ILE:CA	2.92	0.48
1:B:109:LYS:O	1:B:113:THR:HG23	2.13	0.48
1:A:400:HIS:H	1:A:420:THR:HG21	1.79	0.48
1:D:139:PRO:HG2	1:D:148:ARG:NH1	2.28	0.48
1:D:162:TYR:N	1:D:185:ASN:H	2.11	0.48
1:D:69:GLN:HE22	1:D:100:LYS:CG	2.26	0.48
1:B:395:THR:O	1:B:397:THR:HG22	2.14	0.48
1:C:249:LYS:HE3	1:C:264:LEU:CD2	2.42	0.48
1:A:303:PHE:CB	1:A:303:PHE:CD1	2.77	0.48
1:A:2274:SER:HB2	1:A:2343:ARG:CZ	2.44	0.48
1:D:2548:GLY:HA2	1:D:2574:PHE:HE2	1.77	0.48
1:D:183:VAL:O	1:D:191:GLN:NE2	2.46	0.48
1:B:243:PHE:CE2	1:B:432:ILE:HA	2.49	0.48
1:C:135:ASN:ND2	1:C:148:ARG:H	2.11	0.48
1:B:139:PRO:HG2	1:B:148:ARG:NH1	2.28	0.48
1:A:285:GLU:N	1:A:303:PHE:CE2	2.81	0.48
1:C:2324:VAL:C	1:C:2326:ALA:H	2.16	0.48
1:A:2535:ILE:HG13	1:A:2536:VAL:N	2.28	0.48
1:B:358:VAL:HG12	1:B:359:PRO:O	2.13	0.48
1:C:314:LEU:HD23	1:C:366:SER:HB2	1.95	0.48
1:D:2274:SER:HB2	1:D:2343:ARG:CZ	2.44	0.48
1:D:104:GLU:HA	1:D:107:ASN:ND2	2.28	0.48
1:A:484:VAL:HA	1:A:562:HIS:CE1	2.48	0.48
1:D:2714:GLY:O	1:D:2718:GLU:HG2	2.13	0.48
1:B:234:LEU:HB2	1:B:383:PRO:HG2	1.95	0.48
1:B:2308:HIS:O	1:B:2308:HIS:ND1	2.46	0.48
1:D:132:LEU:HB3	1:D:150:THR:O	2.14	0.48
1:A:197:SER:HA	1:A:207:ASN:HD21	1.79	0.48
1:C:285:GLU:HA	1:C:303:PHE:CG	2.46	0.48
1:B:196:SER:O	1:B:207:ASN:ND2	2.46	0.48
1:D:2324:VAL:C	1:D:2326:ALA:H	2.16	0.48
1:B:231:ASP:H	1:B:384:ARG:NH2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2274:SER:HB2	1:B:2343:ARG:CZ	2.44	0.48
1:B:2274:SER:O	1:B:2277:SER:HB2	2.13	0.48
1:B:90:ASN:O	1:B:93:HIS:HB2	2.14	0.48
1:D:2239:LYS:CA	1:D:2240:ILE:CA	2.92	0.48
1:C:2560:GLU:N	1:C:2560:GLU:OE1	2.44	0.48
1:A:376:ARG:HG3	1:D:6:SER:O	2.13	0.48
1:D:97:ASP:OD1	1:D:98:LEU:N	2.46	0.48
1:A:240:VAL:HG22	1:A:241:ARG:N	2.28	0.48
1:C:417:LYS:HB2	1:C:418:ILE:CD1	2.44	0.48
1:A:2587:GLY:HA2	1:A:2590:ILE:HG12	1.95	0.48
1:C:2432:LYS:CA	1:C:2435:THR:CG2	2.91	0.48
1:C:2286:LEU:O	1:C:2289:LEU:HB3	2.13	0.48
1:A:2524:LYS:HD2	1:A:2526:HIS:CD2	2.41	0.48
1:B:2381:ARG:HG3	1:B:2412:PHE:CZ	2.49	0.48
1:D:458:GLY:HA2	1:D:461:GLU:OE2	2.13	0.48
1:D:136:LYS:CB	1:D:188:ASN:HD22	2.27	0.48
1:D:197:SER:HA	1:D:207:ASN:HD21	1.79	0.48
1:A:177:VAL:HG21	1:B:375:LEU:HG	1.95	0.48
1:B:397:THR:OG1	1:B:422:PRO:HB2	2.14	0.48
1:D:397:THR:OG1	1:D:422:PRO:HB2	2.14	0.48
1:C:392:HIS:HD2	1:C:395:THR:HG22	1.79	0.48
1:A:2571:LEU:HB3	1:B:2544:ARG:HH22	1.79	0.48
1:D:2428:LEU:CG	1:D:2429:ASN:CG	2.82	0.48
1:D:2288:ASN:ND2	1:D:2420:LEU:HD12	2.29	0.48
1:B:2288:ASN:HD22	1:B:2416:LEU:HD23	1.78	0.48
1:A:358:VAL:HG12	1:A:359:PRO:O	2.13	0.48
1:C:2378:THR:HA	1:C:2412:PHE:CE1	2.49	0.48
1:A:555:LEU:HA	1:A:558:ARG:HB3	1.96	0.48
1:D:259:LYS:HB3	1:D:261:HIS:NE2	2.28	0.48
1:D:2703:GLU:O	1:D:2707:LYS:HG2	2.13	0.48
1:D:135:ASN:HB2	1:D:138:LEU:O	2.13	0.47
1:D:373:THR:N	1:D:388:VAL:HG21	2.10	0.47
1:D:395:THR:O	1:D:397:THR:HG22	2.14	0.47
1:C:388:VAL:HG12	1:C:389:ARG:N	2.29	0.47
1:C:389:ARG:NH2	1:C:426:ASP:O	2.47	0.47
1:D:2434:VAL:CG1	1:D:2589:ILE:HD12	2.44	0.47
1:C:2430:VAL:HG12	1:C:2430:VAL:O	2.14	0.47
1:D:2372:PHE:HA	1:D:2375:ASN:OD1	2.14	0.47
1:B:55:ASP:HA	1:B:127:LYS:HG2	1.96	0.47
1:C:104:GLU:HA	1:C:107:ASN:ND2	2.28	0.47
1:C:109:LYS:O	1:C:113:THR:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1269:GLU:CA	1:B:1270:ALA:CA	2.92	0.47
1:D:133:THR:OG1	1:D:159:SER:OG	2.23	0.47
1:A:162:TYR:N	1:A:185:ASN:H	2.11	0.47
1:D:389:ARG:HD2	1:D:398:TRP:HE1	1.78	0.47
1:B:117:TYR:CD2	1:B:176:VAL:N	2.79	0.47
1:C:397:THR:OG1	1:C:422:PRO:HB2	2.15	0.47
1:B:2430:VAL:O	1:B:2430:VAL:HG12	2.13	0.47
1:B:2288:ASN:ND2	1:B:2420:LEU:HD12	2.29	0.47
1:B:2333:ILE:O	1:B:2337:ILE:HG22	2.15	0.47
1:B:2372:PHE:HA	1:B:2375:ASN:OD1	2.14	0.47
1:A:2333:ILE:O	1:A:2337:ILE:HG22	2.14	0.47
1:A:2372:PHE:HA	1:A:2375:ASN:OD1	2.14	0.47
1:C:2554:ARG:HH22	1:D:2519:GLU:HB2	1.79	0.47
1:A:514:ASN:O	1:A:518:GLN:NE2	2.47	0.47
1:D:65:ARG:NH2	1:D:100:LYS:HA	2.29	0.47
1:B:197:SER:HA	1:B:207:ASN:HD21	1.79	0.47
1:A:2586:PHE:HE2	1:C:2586:PHE:HE2	1.61	0.47
1:C:2333:ILE:O	1:C:2337:ILE:HG22	2.14	0.47
1:A:2286:LEU:O	1:A:2289:LEU:HB3	2.13	0.47
1:D:515:ILE:HA	1:D:518:GLN:HE22	1.78	0.47
1:C:2274:SER:O	1:C:2277:SER:HB2	2.13	0.47
1:A:2732:ARG:CA	1:A:2733:ILE:CA	2.92	0.47
1:C:2459:GLY:O	1:C:2461:LEU:N	2.44	0.47
1:C:2459:GLY:C	1:C:2461:LEU:H	2.17	0.47
1:A:257:ARG:HH12	1:A:408:LYS:HD3	1.79	0.47
1:B:200:LEU:HD12	1:B:202:ASP:H	1.79	0.47
1:B:290:ASP:HB3	1:B:291:PRO:HD2	1.96	0.47
1:D:109:LYS:O	1:D:113:THR:HG23	2.13	0.47
1:A:399:VAL:HA	1:A:420:THR:HB	1.95	0.47
1:A:417:LYS:HB2	1:A:418:ILE:CD1	2.44	0.47
1:D:117:TYR:CD2	1:D:176:VAL:N	2.79	0.47
1:D:28:SER:OG	1:D:29:THR:N	2.48	0.47
1:B:388:VAL:HG12	1:B:389:ARG:N	2.29	0.47
1:D:388:VAL:HG12	1:D:389:ARG:N	2.29	0.47
1:B:136:LYS:CB	1:B:188:ASN:HD22	2.27	0.47
1:B:64:ASN:O	1:B:66:TYR:N	2.48	0.47
1:B:2535:ILE:HG13	1:B:2536:VAL:N	2.29	0.47
1:C:515:ILE:HA	1:C:518:GLN:HE22	1.80	0.47
1:D:2732:ARG:CA	1:D:2733:ILE:CA	2.92	0.47
1:D:243:PHE:CE2	1:D:432:ILE:HA	2.49	0.47
1:B:2714:GLY:O	1:B:2718:GLU:HG2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:234:LEU:HB2	1:D:383:PRO:HG2	1.95	0.47
1:B:2560:GLU:N	1:B:2560:GLU:OE1	2.44	0.47
1:B:415:MET:CA	1:B:417:LYS:HE2	2.34	0.47
1:D:388:VAL:HG12	1:D:389:ARG:H	1.80	0.47
1:C:18:TYR:CE2	1:C:20:GLU:HB3	2.49	0.47
1:D:18:TYR:CE2	1:D:20:GLU:HB3	2.49	0.47
1:A:2285:VAL:HG12	1:A:2420:LEU:HD13	1.96	0.47
1:B:2378:THR:HA	1:B:2412:PHE:CE1	2.48	0.47
1:C:2732:ARG:CA	1:C:2733:ILE:CA	2.92	0.47
1:B:546:HIS:H	1:B:549:PHE:HE2	1.58	0.47
1:B:2702:LEU:HA	1:B:2705:THR:HG22	1.96	0.47
1:D:90:ASN:O	1:D:93:HIS:HB2	2.14	0.47
1:C:162:TYR:N	1:C:185:ASN:H	2.11	0.47
1:C:197:SER:HA	1:C:207:ASN:HD21	1.78	0.47
1:C:28:SER:OG	1:C:29:THR:N	2.46	0.47
1:C:285:GLU:N	1:C:303:PHE:CE2	2.81	0.47
1:A:2567:VAL:O	1:A:2571:LEU:HD12	2.15	0.47
1:B:2581:VAL:O	1:B:2585:ILE:HG12	2.15	0.47
1:C:2288:ASN:ND2	1:C:2420:LEU:HD12	2.30	0.47
1:D:309:ALA:HB3	1:D:310:THR:HA	1.95	0.47
1:A:200:LEU:HD12	1:A:202:ASP:H	1.80	0.47
1:A:410:GLU:HA	1:A:411:GLU:CB	2.43	0.47
1:D:2704:SER:O	1:D:2708:LEU:HD13	2.15	0.47
1:C:2355:PHE:CE2	1:C:2357:LEU:HB2	2.50	0.47
1:C:2391:GLU:CA	1:C:2392:PHE:CA	2.92	0.47
1:A:69:GLN:HE22	1:A:100:LYS:CG	2.26	0.47
1:B:392:HIS:CD2	1:B:394:CYS:HG	2.17	0.47
1:A:134:VAL:HA	1:A:137:ARG:HH12	1.79	0.47
1:B:392:HIS:HD2	1:B:395:THR:HG22	1.80	0.47
1:C:69:GLN:HE22	1:C:100:LYS:CG	2.26	0.47
1:C:160:TRP:CG	1:C:187:VAL:HG13	2.49	0.47
1:C:139:PRO:HG2	1:C:148:ARG:HH22	1.80	0.47
1:B:69:GLN:HE22	1:B:100:LYS:CG	2.26	0.47
1:B:28:SER:OG	1:B:29:THR:N	2.48	0.47
1:C:388:VAL:HG12	1:C:389:ARG:H	1.79	0.47
1:C:392:HIS:CD2	1:C:394:CYS:HG	2.16	0.47
1:C:399:VAL:HA	1:C:420:THR:HB	1.96	0.47
1:B:132:LEU:HB3	1:B:150:THR:O	2.14	0.47
1:C:45:ASP:HB3	1:C:48:ASN:CB	2.42	0.47
1:A:18:TYR:CE2	1:A:20:GLU:HB3	2.49	0.47
1:A:2430:VAL:HG12	1:A:2430:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2432:LYS:CA	1:B:2435:THR:CG2	2.92	0.47
1:C:2571:LEU:HB3	1:D:2544:ARG:HH22	1.78	0.47
1:A:2583:ASN:HA	1:B:2586:PHE:CE1	2.50	0.47
1:D:2581:VAL:O	1:D:2585:ILE:HG12	2.15	0.47
1:D:2288:ASN:ND2	1:D:2417:LEU:HA	2.30	0.47
1:A:2324:VAL:C	1:A:2326:ALA:H	2.16	0.47
1:D:2603:LYS:N	1:D:2604:GLU:OE1	2.45	0.47
1:C:507:GLN:HB2	1:C:567:TYR:HE2	1.78	0.47
1:A:283:GLU:HG2	1:A:284:VAL:HG23	1.96	0.47
1:B:2391:GLU:CA	1:B:2392:PHE:CA	2.93	0.47
1:A:2239:LYS:CA	1:A:2240:ILE:CA	2.92	0.47
1:A:1269:GLU:CA	1:A:1270:ALA:CA	2.92	0.47
1:A:139:PRO:HG2	1:A:148:ARG:HH22	1.79	0.47
1:B:388:VAL:HG12	1:B:389:ARG:H	1.80	0.47
1:B:18:TYR:CE2	1:B:20:GLU:HB3	2.49	0.47
1:D:248:GLU:OE2	1:D:271:SER:N	2.48	0.47
1:D:390:LEU:HD12	1:D:391:ARG:H	1.80	0.47
1:C:299:TRP:C	1:C:301:SER:H	2.18	0.47
1:A:2586:PHE:CD2	1:B:2586:PHE:CE2	2.75	0.47
1:C:2372:PHE:HZ	1:C:2423:ARG:HE	1.63	0.47
1:B:2288:ASN:ND2	1:B:2417:LEU:HA	2.30	0.47
1:A:2378:THR:HA	1:A:2412:PHE:CE1	2.49	0.47
1:C:2274:SER:HB2	1:C:2343:ARG:CZ	2.44	0.47
1:A:2459:GLY:C	1:A:2461:LEU:H	2.17	0.47
1:C:555:LEU:HA	1:C:558:ARG:HB3	1.96	0.47
1:C:257:ARG:HH12	1:C:408:LYS:HD3	1.79	0.47
1:C:2239:LYS:CA	1:C:2240:ILE:CA	2.92	0.47
1:D:2535:ILE:HG13	1:D:2536:VAL:N	2.29	0.47
1:D:156:ASN:OD1	1:D:156:ASN:N	2.47	0.47
1:D:185:ASN:HB2	1:D:191:GLN:N	2.30	0.47
1:A:69:GLN:HG3	1:A:99:GLU:OE1	2.15	0.47
1:C:132:LEU:HB3	1:C:150:THR:O	2.15	0.47
1:C:134:VAL:HA	1:C:137:ARG:HH12	1.79	0.47
1:B:178:ILE:HB	1:C:376:ARG:NH1	2.30	0.47
1:A:2441:ILE:O	1:A:2444:THR:OG1	2.11	0.47
1:A:2540:SER:O	1:A:2544:ARG:NH2	2.48	0.47
1:C:2575:PHE:CZ	1:C:2579:ILE:HD13	2.50	0.47
1:C:2340:THR:HG21	1:C:2368:PHE:CZ	2.50	0.47
1:D:2379:PHE:HB2	1:D:2416:LEU:CD1	2.42	0.47
1:C:514:ASN:O	1:C:518:GLN:NE2	2.48	0.47
1:C:2704:SER:O	1:C:2708:LEU:HD13	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2704:SER:O	1:B:2708:LEU:HD13	2.15	0.47
1:B:283:GLU:HG2	1:B:284:VAL:HG23	1.97	0.47
1:C:283:GLU:HG2	1:C:284:VAL:HG23	1.96	0.47
1:B:537:ARG:HA	1:B:540:GLU:HG2	1.97	0.47
1:A:2355:PHE:CE2	1:A:2357:LEU:HB2	2.50	0.47
1:A:90:ASN:O	1:A:93:HIS:HB2	2.14	0.47
1:C:485:THR:HG23	1:C:487:GLY:H	1.80	0.47
1:A:519:ILE:O	1:A:522:LEU:HB3	2.15	0.47
1:D:2391:GLU:CA	1:D:2392:PHE:CA	2.93	0.47
1:D:65:ARG:HE	1:D:103:ASN:HB2	1.80	0.47
1:A:132:LEU:HB3	1:A:150:THR:O	2.15	0.47
1:D:249:LYS:HZ3	1:D:267:THR:N	2.12	0.47
1:B:7:SER:HB2	1:B:178:ILE:HD13	1.97	0.47
1:A:2326:ALA:HA	1:A:2329:LYS:HE2	1.96	0.47
1:A:515:ILE:HA	1:A:518:GLN:HE22	1.80	0.47
1:B:2728:LYS:HA	1:B:2732:ARG:HB2	1.97	0.47
1:C:200:LEU:HD12	1:C:202:ASP:H	1.80	0.47
1:A:376:ARG:NH1	1:D:178:ILE:HB	2.30	0.46
1:A:161:PHE:CD1	1:A:184:LEU:HD12	2.50	0.46
1:B:374:THR:OG1	1:B:375:LEU:N	2.48	0.46
1:B:390:LEU:HD12	1:B:391:ARG:H	1.80	0.46
1:C:9:LEU:HD23	1:C:226:TRP:CZ2	2.50	0.46
1:C:395:THR:O	1:C:397:THR:HG22	2.16	0.46
1:C:2583:ASN:HA	1:D:2586:PHE:CE1	2.50	0.46
1:C:2285:VAL:HG12	1:C:2420:LEU:HD13	1.97	0.46
1:D:2340:THR:HG21	1:D:2368:PHE:CZ	2.49	0.46
1:A:2288:ASN:ND2	1:A:2420:LEU:HD12	2.30	0.46
1:D:290:ASP:HB3	1:D:291:PRO:HD2	1.97	0.46
1:C:537:ARG:HA	1:C:540:GLU:HG2	1.98	0.46
1:B:2355:PHE:CE2	1:B:2357:LEU:HB2	2.50	0.46
1:C:90:ASN:O	1:C:93:HIS:HB2	2.14	0.46
1:A:388:VAL:HG12	1:A:389:ARG:H	1.80	0.46
1:D:64:ASN:O	1:D:66:TYR:N	2.48	0.46
1:A:9:LEU:HD23	1:A:226:TRP:CZ2	2.50	0.46
1:B:417:LYS:HB2	1:B:418:ILE:CD1	2.46	0.46
1:C:226:TRP:CD1	1:C:226:TRP:N	2.83	0.46
1:D:249:LYS:HE3	1:D:264:LEU:CD2	2.42	0.46
1:D:374:THR:OG1	1:D:375:LEU:N	2.48	0.46
1:B:117:TYR:CG	1:B:176:VAL:HG23	2.48	0.46
1:B:184:LEU:O	1:B:191:GLN:NE2	2.46	0.46
1:D:45:ASP:HB3	1:D:48:ASN:CB	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:ASP:HB3	1:A:48:ASN:CB	2.43	0.46
1:A:2575:PHE:CZ	1:A:2579:ILE:HD13	2.50	0.46
1:C:2372:PHE:HA	1:C:2375:ASN:OD1	2.14	0.46
1:D:2286:LEU:O	1:D:2289:LEU:HB3	2.15	0.46
1:A:2554:ARG:HH22	1:B:2519:GLU:HB2	1.79	0.46
1:C:2381:ARG:HG3	1:C:2412:PHE:CZ	2.50	0.46
1:B:104:GLU:HA	1:B:107:ASN:HD21	1.80	0.46
1:C:410:GLU:HA	1:C:411:GLU:CB	2.43	0.46
1:A:2704:SER:O	1:A:2708:LEU:HD13	2.14	0.46
1:A:2391:GLU:CA	1:A:2392:PHE:CA	2.92	0.46
1:C:1269:GLU:CA	1:C:1270:ALA:CA	2.93	0.46
1:D:529:ASP:OD1	1:D:530:CYS:N	2.48	0.46
1:D:1269:GLU:CA	1:D:1270:ALA:CA	2.92	0.46
1:A:388:VAL:HG12	1:A:389:ARG:N	2.29	0.46
1:A:185:ASN:HB2	1:A:191:GLN:N	2.31	0.46
1:A:192:PRO:HB2	1:A:213:ASN:HA	1.97	0.46
1:A:39:VAL:HG13	1:A:208:GLU:HG3	1.98	0.46
1:B:65:ARG:NH2	1:B:100:LYS:HA	2.29	0.46
1:D:46:LEU:H	1:D:46:LEU:HD12	1.81	0.46
1:A:2587:GLY:O	1:A:2590:ILE:HG12	2.16	0.46
1:C:2567:VAL:O	1:C:2571:LEU:HD12	2.15	0.46
1:D:2428:LEU:HG	1:D:2429:ASN:OD1	2.16	0.46
1:D:2567:VAL:O	1:D:2571:LEU:HD12	2.15	0.46
1:D:127:LYS:NZ	1:D:444:ASP:OD2	2.39	0.46
1:B:514:ASN:O	1:B:518:GLN:NE2	2.47	0.46
1:A:465:ILE:HA	1:A:469:GLU:OE1	2.16	0.46
1:C:2348:VAL:HA	1:C:2351:GLN:CD	2.36	0.46
1:B:529:ASP:OD1	1:B:530:CYS:N	2.49	0.46
1:B:1087:PHE:CA	1:B:1088:SER:CA	2.94	0.46
1:A:390:LEU:HD12	1:A:391:ARG:H	1.81	0.46
1:A:64:ASN:O	1:A:66:TYR:N	2.48	0.46
1:B:58:PHE:CD2	1:B:123:LEU:HD21	2.51	0.46
1:C:390:LEU:HD23	1:C:399:VAL:HG21	1.97	0.46
1:C:2587:GLY:HA2	1:C:2590:ILE:HG12	1.95	0.46
1:D:2333:ILE:O	1:D:2337:ILE:HG22	2.14	0.46
1:B:2379:PHE:HB2	1:B:2416:LEU:CD1	2.42	0.46
1:B:2285:VAL:HG12	1:B:2420:LEU:HD13	1.97	0.46
1:D:240:VAL:HG22	1:D:241:ARG:H	1.80	0.46
1:D:514:ASN:O	1:D:518:GLN:NE2	2.47	0.46
1:B:2459:GLY:C	1:B:2461:LEU:H	2.19	0.46
1:C:104:GLU:HA	1:C:107:ASN:HD21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2555:LYS:NZ	1:B:2562:LEU:HD21	2.31	0.46
1:C:572:GLU:OE1	1:C:572:GLU:N	2.38	0.46
1:D:2355:PHE:CE2	1:D:2357:LEU:HB2	2.51	0.46
1:A:2724:THR:HG23	1:A:2727:ARG:HE	1.81	0.46
1:A:1637:PHE:CA	1:A:1638:PRO:CA	2.94	0.46
1:D:161:PHE:CD1	1:D:184:LEU:HD12	2.51	0.46
1:D:208:GLU:HG2	1:D:209:VAL:N	2.26	0.46
1:A:65:ARG:NH2	1:A:100:LYS:HA	2.31	0.46
1:C:185:ASN:HB2	1:C:191:GLN:N	2.31	0.46
1:B:226:TRP:CD1	1:B:226:TRP:N	2.83	0.46
1:C:46:LEU:HD12	1:C:46:LEU:H	1.81	0.46
1:C:2587:GLY:O	1:C:2590:ILE:HG12	2.16	0.46
1:D:2372:PHE:HZ	1:D:2423:ARG:HE	1.63	0.46
1:B:2372:PHE:HZ	1:B:2423:ARG:HE	1.62	0.46
1:A:2340:THR:HG21	1:A:2368:PHE:CZ	2.50	0.46
1:D:55:ASP:HA	1:D:127:LYS:HG2	1.96	0.46
1:B:2554:ARG:HH22	1:C:2519:GLU:HB2	1.80	0.46
1:C:2516:PRO:O	1:C:2520:THR:OG1	2.30	0.46
1:A:231:ASP:H	1:A:384:ARG:NH2	2.14	0.46
1:D:465:ILE:HD11	1:D:470:ARG:NH2	2.31	0.46
1:A:2555:LYS:NZ	1:A:2562:LEU:HD21	2.31	0.46
1:D:283:GLU:HG2	1:D:284:VAL:HG23	1.97	0.46
1:C:1087:PHE:CA	1:C:1088:SER:CA	2.94	0.46
1:D:381:LEU:HD12	1:D:381:LEU:O	2.16	0.46
1:A:397:THR:OG1	1:A:422:PRO:HB2	2.14	0.46
1:D:139:PRO:HG2	1:D:148:ARG:HH22	1.79	0.46
1:C:447:ASN:OD1	1:C:448:ASP:N	2.49	0.46
1:D:264:LEU:HB3	1:D:415:MET:HE1	1.98	0.46
1:D:417:LYS:HB2	1:D:418:ILE:CD1	2.46	0.46
1:D:2541:HIS:HA	1:D:2544:ARG:HG2	1.98	0.46
1:C:2581:VAL:O	1:C:2585:ILE:HG12	2.15	0.46
1:B:2286:LEU:O	1:B:2289:LEU:HB3	2.15	0.46
1:A:104:GLU:HA	1:A:107:ASN:HD21	1.81	0.46
1:B:545:ARG:HG3	1:B:549:PHE:HE2	1.81	0.46
1:D:537:ARG:HA	1:D:540:GLU:HG2	1.97	0.46
1:A:2559:GLU:OE1	1:C:2301:ARG:HB3	2.16	0.46
1:B:381:LEU:HD12	1:B:381:LEU:O	2.16	0.46
1:A:395:THR:O	1:A:397:THR:HG22	2.16	0.46
1:A:9:LEU:HD23	1:A:226:TRP:CE2	2.51	0.46
1:B:249:LYS:HE2	1:B:415:MET:HE1	1.98	0.46
1:B:248:GLU:OE2	1:B:271:SER:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:161:PHE:CD1	1:C:184:LEU:HD12	2.50	0.46
1:C:9:LEU:HD23	1:C:226:TRP:CE2	2.51	0.46
1:D:299:TRP:C	1:D:301:SER:H	2.19	0.46
1:C:390:LEU:HD12	1:C:391:ARG:H	1.81	0.46
1:D:2575:PHE:CZ	1:D:2579:ILE:HD13	2.51	0.46
1:C:2431:ILE:HD12	1:C:2431:ILE:N	2.08	0.46
1:D:555:LEU:HA	1:D:558:ARG:HB3	1.96	0.46
1:A:2348:VAL:HA	1:A:2351:GLN:CD	2.36	0.46
1:B:2355:PHE:CE2	1:B:2357:LEU:HD23	2.51	0.46
1:D:2355:PHE:CE2	1:D:2357:LEU:HD23	2.51	0.46
1:D:2535:ILE:O	1:D:2539:LEU:HD13	2.16	0.46
1:D:7:SER:HB2	1:D:178:ILE:HD13	1.97	0.46
1:B:161:PHE:CD1	1:B:184:LEU:HD12	2.51	0.46
1:B:168:LYS:HZ2	1:C:247:GLN:HA	1.81	0.46
1:C:374:THR:OG1	1:C:375:LEU:N	2.49	0.46
1:A:2437:ASN:O	1:A:2441:ILE:HG13	2.14	0.46
1:A:2568:ILE:O	1:A:2572:LEU:HB2	2.16	0.46
1:A:2581:VAL:O	1:A:2585:ILE:HG12	2.16	0.46
1:B:2437:ASN:O	1:B:2441:ILE:HG13	2.16	0.46
1:B:2568:ILE:O	1:B:2572:LEU:HB2	2.15	0.46
1:C:2540:SER:O	1:C:2544:ARG:NH2	2.48	0.46
1:D:2568:ILE:O	1:D:2572:LEU:HB2	2.16	0.46
1:B:2340:THR:HG21	1:B:2368:PHE:CZ	2.50	0.46
1:D:545:ARG:HG3	1:D:549:PHE:HE2	1.81	0.46
1:D:2587:GLY:O	1:D:2590:ILE:HG12	2.16	0.46
1:D:1087:PHE:CA	1:D:1088:SER:CA	2.94	0.46
1:C:529:ASP:OD1	1:C:530:CYS:N	2.49	0.46
1:A:1012:SER:CA	1:A:1013:SER:CA	2.94	0.46
1:B:362:ASN:HB3	1:B:363:ASP:H	1.55	0.46
1:A:404:ILE:HB	1:A:417:LYS:NZ	2.31	0.46
1:A:240:VAL:HG22	1:A:241:ARG:H	1.80	0.46
1:C:65:ARG:NH2	1:C:100:LYS:HA	2.30	0.46
1:B:185:ASN:HB2	1:B:191:GLN:N	2.30	0.46
1:B:69:GLN:HG3	1:B:99:GLU:OE1	2.16	0.46
1:A:46:LEU:H	1:A:46:LEU:HD12	1.81	0.46
1:B:2296:PRO:HB3	1:B:2321:LEU:HD21	1.98	0.46
1:A:2372:PHE:HZ	1:A:2423:ARG:HE	1.62	0.46
1:D:242:LEU:HD11	1:D:305:PHE:O	2.16	0.46
1:C:231:ASP:H	1:C:384:ARG:NH2	2.14	0.46
1:B:465:ILE:HA	1:B:469:GLU:OE1	2.16	0.46
1:B:465:ILE:HD11	1:B:470:ARG:NH2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2358:GLY:O	1:D:2362:VAL:HG22	2.16	0.46
1:A:68:ALA:O	1:A:71:GLN:HB3	2.16	0.46
1:B:2587:GLY:O	1:B:2590:ILE:HG12	2.16	0.46
1:A:485:THR:HG23	1:A:487:GLY:H	1.80	0.46
1:D:58:PHE:CD2	1:D:123:LEU:HD21	2.51	0.46
1:B:249:LYS:HZ3	1:B:267:THR:N	2.14	0.46
1:C:64:ASN:O	1:C:66:TYR:N	2.48	0.46
1:C:69:GLN:HG3	1:C:99:GLU:OE1	2.16	0.46
1:C:246:GLU:O	1:C:248:GLU:N	2.42	0.46
1:D:2290:LEU:HD22	1:D:2304:THR:HB	1.98	0.46
1:B:2290:LEU:HD22	1:B:2304:THR:HB	1.98	0.46
1:B:242:LEU:HD11	1:B:305:PHE:O	2.16	0.46
1:D:511:ARG:HD2	1:D:515:ILE:HG12	1.98	0.46
1:A:507:GLN:O	1:A:510:MET:HB3	2.16	0.46
1:C:545:ARG:HG3	1:C:549:PHE:HE2	1.81	0.46
1:D:571:GLN:HA	1:D:574:ILE:HD13	1.98	0.46
1:D:572:GLU:OE1	1:D:572:GLU:N	2.38	0.46
1:A:2355:PHE:CE2	1:A:2357:LEU:HD23	2.51	0.46
1:B:2078:GLY:CA	1:B:2079:LYS:CA	2.94	0.46
1:D:1012:SER:CA	1:D:1013:SER:CA	2.94	0.46
1:B:1012:SER:CA	1:B:1013:SER:CA	2.94	0.46
1:A:1087:PHE:CA	1:A:1088:SER:CA	2.94	0.46
1:C:519:ILE:O	1:C:522:LEU:HB3	2.15	0.46
1:B:1637:PHE:CA	1:B:1638:PRO:CA	2.94	0.46
1:C:260:GLN:HB3	1:C:357:SER:OG	2.16	0.46
1:D:192:PRO:HB2	1:D:213:ASN:HA	1.98	0.45
1:D:37:CYS:HB2	1:D:150:THR:HA	1.97	0.45
1:A:65:ARG:HE	1:A:103:ASN:HB2	1.81	0.45
1:B:139:PRO:HG2	1:B:148:ARG:HH22	1.80	0.45
1:C:400:HIS:H	1:C:420:THR:HG21	1.80	0.45
1:D:2540:SER:HG	1:D:2541:HIS:H	1.64	0.45
1:C:2429:ASN:C	1:C:2431:ILE:CD1	2.85	0.45
1:C:2379:PHE:HB2	1:C:2416:LEU:CD1	2.44	0.45
1:A:2326:ALA:CA	1:A:2329:LYS:HE2	2.33	0.45
1:A:2329:LYS:HG3	1:A:2330:PRO:CD	2.45	0.45
1:D:447:ASN:OD1	1:D:448:ASP:N	2.49	0.45
1:C:312:HIS:HB3	1:C:313:TYR:H	1.47	0.45
1:C:2524:LYS:HD2	1:C:2526:HIS:CD2	2.41	0.45
1:C:2724:THR:HG23	1:C:2727:ARG:HE	1.81	0.45
1:C:2728:LYS:HA	1:C:2732:ARG:HB2	1.98	0.45
1:D:465:ILE:HA	1:D:469:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:238:ASP:OD1	1:B:238:ASP:N	2.46	0.45
1:B:571:GLN:HA	1:B:574:ILE:HD13	1.98	0.45
1:B:2358:GLY:O	1:B:2362:VAL:HG22	2.16	0.45
1:B:2740:PRO:CA	1:B:2741:HIS:CA	2.94	0.45
1:B:485:THR:HG23	1:B:487:GLY:H	1.81	0.45
1:A:2078:GLY:CA	1:A:2079:LYS:CA	2.94	0.45
1:A:248:GLU:OE2	1:A:271:SER:N	2.49	0.45
1:A:264:LEU:HB3	1:A:415:MET:HE1	1.98	0.45
1:A:134:VAL:HG12	1:A:138:LEU:HD22	1.98	0.45
1:B:266:THR:O	1:B:267:THR:OG1	2.30	0.45
1:C:192:PRO:HB2	1:C:213:ASN:HA	1.97	0.45
1:C:65:ARG:HE	1:C:103:ASN:HB2	1.81	0.45
1:B:6:SER:H	1:C:377:GLY:HA2	1.81	0.45
1:A:2301:ARG:HB3	1:C:2559:GLU:OE1	2.16	0.45
1:B:2429:ASN:C	1:B:2431:ILE:CD1	2.85	0.45
1:B:2575:PHE:CZ	1:B:2579:ILE:HD13	2.51	0.45
1:B:2580:ILE:HG23	1:B:2584:LEU:HD13	1.98	0.45
1:B:2535:ILE:O	1:B:2539:LEU:HD13	2.16	0.45
1:D:2285:VAL:HG12	1:D:2420:LEU:HD13	1.97	0.45
1:D:2728:LYS:HA	1:D:2732:ARG:HB2	1.97	0.45
1:B:555:LEU:HA	1:B:558:ARG:HB3	1.97	0.45
1:A:260:GLN:HB3	1:A:357:SER:OG	2.16	0.45
1:A:234:LEU:HB2	1:A:383:PRO:HG2	1.98	0.45
1:C:1634:PHE:CA	1:C:1635:PRO:CA	2.94	0.45
1:A:109:LYS:O	1:A:113:THR:HG23	2.14	0.45
1:A:381:LEU:HD12	1:A:381:LEU:O	2.17	0.45
1:C:234:LEU:HB2	1:C:383:PRO:HG2	1.97	0.45
1:A:375:LEU:HB3	1:D:8:PHE:HD1	1.81	0.45
1:D:9:LEU:HD23	1:D:226:TRP:CZ2	2.51	0.45
1:A:128:SER:O	1:A:130:LYS:HG2	2.16	0.45
1:A:8:PHE:HD1	1:B:375:LEU:HB3	1.81	0.45
1:C:134:VAL:HG12	1:C:138:LEU:HD22	1.97	0.45
1:C:127:LYS:NZ	1:C:444:ASP:OD2	2.39	0.45
1:B:9:LEU:HD23	1:B:226:TRP:CZ2	2.51	0.45
1:C:248:GLU:OE2	1:C:271:SER:N	2.49	0.45
1:B:2567:VAL:O	1:B:2571:LEU:HD12	2.15	0.45
1:B:2341:ILE:O	1:B:2345:ILE:HG22	2.16	0.45
1:B:514:ASN:ND2	1:B:518:GLN:HE21	2.14	0.45
1:D:514:ASN:ND2	1:D:518:GLN:HE21	2.14	0.45
1:D:2725:GLU:HA	1:D:2728:LYS:HG2	1.97	0.45
1:D:104:GLU:HA	1:D:107:ASN:HD21	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:465:ILE:HA	1:C:469:GLU:OE1	2.16	0.45
1:A:2703:GLU:HA	1:A:2706:MET:CE	2.45	0.45
1:A:537:ARG:HA	1:A:540:GLU:HG2	1.98	0.45
1:C:2355:PHE:CE2	1:C:2357:LEU:HD23	2.51	0.45
1:C:2358:GLY:O	1:C:2362:VAL:HG22	2.16	0.45
1:D:69:GLN:HG3	1:D:99:GLU:OE1	2.16	0.45
1:A:7:SER:HB2	1:A:178:ILE:HD13	1.99	0.45
1:B:65:ARG:HH21	1:B:103:ASN:HB3	1.82	0.45
1:C:405:PRO:HD2	1:C:417:LYS:HD2	1.99	0.45
1:C:2568:ILE:O	1:C:2572:LEU:HB2	2.16	0.45
1:C:2326:ALA:HA	1:C:2329:LYS:HE2	1.97	0.45
1:D:2319:ILE:HG22	1:D:2322:ALA:HB3	1.97	0.45
1:A:2519:GLU:HB2	1:D:2554:ARG:HH22	1.80	0.45
1:A:2725:GLU:HA	1:A:2728:LYS:HG2	1.98	0.45
1:A:2728:LYS:HA	1:A:2732:ARG:HB2	1.98	0.45
1:C:507:GLN:O	1:C:510:MET:HB3	2.16	0.45
1:C:1012:SER:CA	1:C:1013:SER:CA	2.94	0.45
1:C:2702:LEU:HA	1:C:2705:THR:HG22	1.99	0.45
1:B:519:ILE:O	1:B:522:LEU:HB3	2.17	0.45
1:D:131:TYR:O	1:D:152:ASP:N	2.46	0.45
1:B:404:ILE:HB	1:B:417:LYS:NZ	2.31	0.45
1:C:8:PHE:HD1	1:D:375:LEU:HB3	1.81	0.45
1:A:18:TYR:CE2	1:A:46:LEU:HG	2.51	0.45
1:C:2535:ILE:O	1:C:2539:LEU:HD13	2.16	0.45
1:A:2535:ILE:O	1:A:2539:LEU:HD13	2.16	0.45
1:A:2290:LEU:HD22	1:A:2304:THR:HB	1.98	0.45
1:A:2379:PHE:HB2	1:A:2416:LEU:CD1	2.44	0.45
1:B:240:VAL:HG22	1:B:241:ARG:H	1.81	0.45
1:A:2381:ARG:HG3	1:A:2412:PHE:CZ	2.51	0.45
1:B:2725:GLU:HA	1:B:2728:LYS:HG2	1.97	0.45
1:D:469:GLU:O	1:D:473:VAL:HG12	2.17	0.45
1:D:2436:ARG:HA	1:D:2436:ARG:HD2	1.83	0.45
1:A:120:VAL:CG1	1:A:161:PHE:H	2.30	0.45
1:A:242:LEU:HD11	1:A:305:PHE:O	2.17	0.45
1:C:242:LEU:HD11	1:C:305:PHE:O	2.17	0.45
1:D:246:GLU:O	1:D:248:GLU:N	2.45	0.45
1:D:415:MET:CA	1:D:417:LYS:HE2	2.34	0.45
1:B:64:ASN:ND2	1:B:103:ASN:OD1	2.49	0.45
1:B:8:PHE:HD1	1:C:375:LEU:HB3	1.81	0.45
1:A:2541:HIS:HA	1:A:2544:ARG:HG2	1.99	0.45
1:D:2341:ILE:O	1:D:2345:ILE:HG22	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:312:HIS:HB3	1:B:313:TYR:H	1.47	0.45
1:C:2319:ILE:HG22	1:C:2322:ALA:HB3	1.98	0.45
1:A:290:ASP:HB3	1:A:291:PRO:HD2	1.99	0.45
1:B:410:GLU:HA	1:B:411:GLU:CB	2.43	0.45
1:D:68:ALA:O	1:D:71:GLN:HB3	2.17	0.45
1:D:2689:GLU:HA	1:D:2692:GLN:HB3	1.98	0.45
1:D:2078:GLY:CA	1:D:2079:LYS:CA	2.94	0.45
1:A:243:PHE:CE2	1:A:432:ILE:HA	2.52	0.45
1:D:117:TYR:CD2	1:D:170:ARG:HD3	2.52	0.45
1:A:208:GLU:HG2	1:A:209:VAL:N	2.27	0.45
1:C:128:SER:O	1:C:130:LYS:HG2	2.16	0.45
1:C:39:VAL:HG13	1:C:208:GLU:HG3	1.98	0.45
1:D:404:ILE:HB	1:D:417:LYS:NZ	2.31	0.45
1:B:37:CYS:HB2	1:B:150:THR:HA	1.98	0.45
1:B:65:ARG:HE	1:B:103:ASN:HB2	1.80	0.45
1:A:2429:ASN:C	1:A:2431:ILE:CD1	2.85	0.45
1:A:2532:LEU:O	1:A:2536:VAL:HG23	2.16	0.45
1:B:2319:ILE:HG22	1:B:2322:ALA:HB3	1.97	0.45
1:B:511:ARG:HD2	1:B:515:ILE:HG12	1.98	0.45
1:C:2725:GLU:HA	1:C:2728:LYS:HG2	1.98	0.45
1:C:526:PRO:O	1:C:532:ASP:HB2	2.17	0.45
1:A:199:GLN:HG3	1:A:204:PRO:O	2.17	0.45
1:C:2078:GLY:CA	1:C:2079:LYS:CA	2.94	0.45
1:A:374:THR:OG1	1:A:375:LEU:N	2.49	0.45
1:A:405:PRO:HD2	1:A:417:LYS:HD2	1.99	0.45
1:A:219:LYS:HA	1:A:219:LYS:HD3	1.80	0.45
1:A:2589:ILE:O	1:A:2592:THR:OG1	2.27	0.45
1:D:2296:PRO:HB3	1:D:2321:LEU:HD21	1.98	0.45
1:B:447:ASN:OD1	1:B:448:ASP:N	2.50	0.45
1:B:223:PHE:CE1	1:B:293:ARG:HB2	2.52	0.45
1:A:223:PHE:CE1	1:A:293:ARG:HB2	2.52	0.45
1:C:68:ALA:O	1:C:71:GLN:HB3	2.16	0.45
1:A:526:PRO:O	1:A:532:ASP:HB2	2.17	0.45
1:B:2698:LEU:HD11	1:C:2693:ASN:HB3	1.98	0.45
1:D:485:THR:HG23	1:D:487:GLY:H	1.81	0.45
1:A:529:ASP:OD1	1:A:530:CYS:N	2.48	0.45
1:C:381:LEU:O	1:C:381:LEU:HD12	2.17	0.45
1:A:2702:LEU:HA	1:A:2705:THR:HG22	1.99	0.45
1:D:128:SER:O	1:D:130:LYS:HG2	2.17	0.45
1:B:299:TRP:C	1:B:301:SER:H	2.19	0.45
1:B:192:PRO:HB2	1:B:213:ASN:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2290:LEU:HD22	1:C:2304:THR:HB	1.98	0.45
1:D:2290:LEU:HA	1:D:2293:PHE:CE2	2.52	0.45
1:C:290:ASP:HB3	1:C:291:PRO:HD2	1.99	0.45
1:B:469:GLU:O	1:B:473:VAL:HG12	2.17	0.45
1:B:199:GLN:HG3	1:B:204:PRO:O	2.17	0.45
1:C:2740:PRO:CA	1:C:2741:HIS:CA	2.94	0.45
1:D:1637:PHE:CA	1:D:1638:PRO:CA	2.94	0.45
1:D:2740:PRO:CA	1:D:2741:HIS:CA	2.94	0.45
1:A:39:VAL:HG22	1:A:207:ASN:C	2.38	0.45
1:C:136:LYS:HG2	1:C:147:MET:SD	2.57	0.45
1:C:7:SER:HB2	1:C:178:ILE:HD13	1.98	0.45
1:C:39:VAL:HG22	1:C:207:ASN:C	2.37	0.45
1:C:27:ILE:HG23	1:C:39:VAL:HG12	1.99	0.45
1:C:404:ILE:HB	1:C:417:LYS:NZ	2.31	0.45
1:C:405:PRO:HD2	1:C:417:LYS:HA	1.99	0.45
1:A:2431:ILE:N	1:A:2431:ILE:HD12	2.08	0.45
1:D:2428:LEU:CG	1:D:2429:ASN:N	2.71	0.45
1:C:2288:ASN:ND2	1:C:2417:LEU:HA	2.32	0.45
1:C:2296:PRO:HB3	1:C:2321:LEU:HD21	1.99	0.45
1:C:2326:ALA:CA	1:C:2329:LYS:HE2	2.30	0.45
1:D:2732:ARG:HA	1:D:2733:ILE:CA	2.47	0.45
1:C:2353:THR:HA	1:C:2354:LEU:HA	1.70	0.45
1:A:2703:GLU:HG3	1:A:2706:MET:HE3	1.99	0.45
1:A:13:ASP:OD1	1:A:225:LYS:HD3	2.17	0.45
1:D:199:GLN:HG3	1:D:204:PRO:O	2.17	0.45
1:A:2740:PRO:CA	1:A:2741:HIS:CA	2.94	0.45
1:B:260:GLN:HB3	1:B:357:SER:OG	2.17	0.45
1:A:299:TRP:C	1:A:301:SER:H	2.18	0.44
1:A:377:GLY:HA2	1:D:6:SER:H	1.81	0.44
1:D:136:LYS:HG2	1:D:147:MET:SD	2.57	0.44
1:D:66:TYR:CZ	1:D:160:TRP:HB2	2.53	0.44
1:A:38:VAL:HB	1:A:39:VAL:H	1.60	0.44
1:C:39:VAL:HG22	1:C:207:ASN:O	2.17	0.44
1:C:240:VAL:HG22	1:C:241:ARG:H	1.80	0.44
1:C:2541:HIS:HA	1:C:2544:ARG:HG2	1.99	0.44
1:B:2290:LEU:HA	1:B:2293:PHE:CE2	2.52	0.44
1:A:2288:ASN:ND2	1:A:2417:LEU:HA	2.32	0.44
1:D:312:HIS:HB2	1:D:356:VAL:HG23	1.99	0.44
1:D:2274:SER:CB	1:D:2339:SER:HB3	2.44	0.44
1:C:554:ARG:O	1:C:558:ARG:N	2.50	0.44
1:B:68:ALA:O	1:B:71:GLN:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:519:ILE:O	1:D:522:LEU:HB3	2.17	0.44
1:A:390:LEU:HD23	1:A:399:VAL:HG21	1.97	0.44
1:A:64:ASN:ND2	1:A:103:ASN:OD1	2.50	0.44
1:A:253:CYS:O	1:A:281:LEU:HD22	2.18	0.44
1:A:447:ASN:OD1	1:A:448:ASP:N	2.49	0.44
1:B:46:LEU:H	1:B:46:LEU:HD12	1.81	0.44
1:C:136:LYS:HB3	1:C:188:ASN:HD22	1.81	0.44
1:C:253:CYS:O	1:C:281:LEU:HD22	2.18	0.44
1:C:58:PHE:CD2	1:C:123:LEU:HD21	2.53	0.44
1:B:131:TYR:O	1:B:152:ASP:N	2.45	0.44
1:B:117:TYR:CD2	1:B:170:ARG:HD3	2.52	0.44
1:C:249:LYS:HZ3	1:C:267:THR:N	2.14	0.44
1:A:2576:MET:O	1:A:2580:ILE:HG12	2.16	0.44
1:B:2541:HIS:HA	1:B:2544:ARG:HG2	1.99	0.44
1:B:2576:MET:O	1:B:2580:ILE:HG12	2.17	0.44
1:C:2296:PRO:O	1:C:2297:PHE:CG	2.71	0.44
1:A:484:VAL:HA	1:A:506:ARG:HH11	1.82	0.44
1:A:2358:GLY:O	1:A:2362:VAL:HG22	2.16	0.44
1:D:489:ASN:HA	1:D:490:SER:HA	1.76	0.44
1:D:260:GLN:HB3	1:D:357:SER:OG	2.17	0.44
1:B:2689:GLU:HA	1:B:2692:GLN:HB3	1.98	0.44
1:B:128:SER:O	1:B:130:LYS:HG2	2.17	0.44
1:B:117:TYR:CD1	1:B:176:VAL:N	2.84	0.44
1:C:18:TYR:CE2	1:C:46:LEU:HG	2.51	0.44
1:D:18:TYR:CE2	1:D:46:LEU:HG	2.52	0.44
1:A:2422:TYR:O	1:A:2425:GLU:HB3	2.17	0.44
1:B:2589:ILE:O	1:B:2592:THR:OG1	2.29	0.44
1:C:2576:MET:O	1:C:2580:ILE:HG12	2.17	0.44
1:D:2428:LEU:CG	1:D:2429:ASN:ND2	2.81	0.44
1:D:2576:MET:O	1:D:2580:ILE:HG12	2.17	0.44
1:C:2532:LEU:O	1:C:2536:VAL:HG23	2.16	0.44
1:D:2296:PRO:O	1:D:2297:PHE:CG	2.71	0.44
1:B:2287:MET:HA	1:B:2290:LEU:HG	2.00	0.44
1:B:312:HIS:HB2	1:B:356:VAL:HG23	1.98	0.44
1:D:507:GLN:O	1:D:510:MET:HB3	2.17	0.44
1:B:507:GLN:O	1:B:510:MET:HB3	2.16	0.44
1:C:469:GLU:O	1:C:473:VAL:HG12	2.17	0.44
1:A:469:GLU:O	1:A:473:VAL:HG12	2.17	0.44
1:A:392:HIS:HD2	1:A:395:THR:HG22	1.80	0.44
1:A:226:TRP:CD1	1:A:226:TRP:N	2.83	0.44
1:B:399:VAL:HA	1:B:420:THR:HB	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:174:ASP:OD1	1:B:174:ASP:N	2.51	0.44
1:A:45:ASP:N	1:A:48:ASN:O	2.50	0.44
1:C:2288:ASN:HD22	1:C:2416:LEU:HD23	1.82	0.44
1:A:2290:LEU:HA	1:A:2293:PHE:CE2	2.53	0.44
1:D:515:ILE:HB	1:D:573:TYR:CE2	2.53	0.44
1:C:2724:THR:HG23	1:C:2727:ARG:NE	2.33	0.44
1:A:554:ARG:O	1:A:558:ARG:N	2.50	0.44
1:A:2353:THR:HA	1:A:2354:LEU:HA	1.70	0.44
1:C:2355:PHE:O	1:C:2358:GLY:N	2.51	0.44
1:A:70:LYS:O	1:A:74:LYS:HG2	2.17	0.44
1:D:2532:LEU:O	1:D:2536:VAL:HG23	2.16	0.44
1:D:163:ILE:HD12	1:D:163:ILE:H	1.83	0.44
1:A:400:HIS:O	1:A:420:THR:OG1	2.36	0.44
1:A:136:LYS:HG2	1:A:147:MET:SD	2.57	0.44
1:B:389:ARG:NH2	1:B:427:LYS:HA	2.33	0.44
1:B:18:TYR:CE2	1:B:46:LEU:HG	2.52	0.44
1:C:64:ASN:ND2	1:C:103:ASN:OD1	2.50	0.44
1:D:2580:ILE:HA	1:D:2583:ASN:OD1	2.17	0.44
1:B:309:ALA:H	1:B:310:THR:HB	1.83	0.44
1:C:311:GLY:HA2	1:C:359:PRO:CD	2.48	0.44
1:A:2319:ILE:HG22	1:A:2322:ALA:HB3	1.99	0.44
1:D:2703:GLU:HA	1:D:2706:MET:CE	2.46	0.44
1:C:2703:GLU:HA	1:C:2706:MET:CE	2.45	0.44
1:D:2555:LYS:NZ	1:D:2562:LEU:HD21	2.31	0.44
1:B:163:ILE:HD12	1:B:163:ILE:H	1.83	0.44
1:D:134:VAL:HA	1:D:137:ARG:HH12	1.82	0.44
1:A:58:PHE:CD2	1:A:123:LEU:HD21	2.53	0.44
1:A:178:ILE:HB	1:B:376:ARG:NH1	2.33	0.44
1:C:117:TYR:CD1	1:C:176:VAL:N	2.83	0.44
1:C:249:LYS:HE2	1:C:415:MET:HE1	2.00	0.44
1:C:45:ASP:N	1:C:48:ASN:O	2.50	0.44
1:D:2580:ILE:HG23	1:D:2584:LEU:HD13	1.98	0.44
1:B:2532:LEU:O	1:B:2536:VAL:HG23	2.17	0.44
1:A:2287:MET:HA	1:A:2290:LEU:HG	2.00	0.44
1:A:2368:PHE:O	1:A:2372:PHE:HD2	2.01	0.44
1:B:311:GLY:HA2	1:B:359:PRO:CD	2.47	0.44
1:D:484:VAL:HA	1:D:506:ARG:HH11	1.83	0.44
1:A:2516:PRO:O	1:A:2520:THR:OG1	2.30	0.44
1:A:511:ARG:HD2	1:A:515:ILE:HG12	1.99	0.44
1:D:223:PHE:CE1	1:D:293:ARG:HB2	2.52	0.44
1:A:405:PRO:HD2	1:A:417:LYS:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:401:SER:HA	1:A:418:ILE:HG12	2.00	0.44
1:D:64:ASN:ND2	1:D:103:ASN:OD1	2.49	0.44
1:D:120:VAL:CG1	1:D:161:PHE:H	2.30	0.44
1:A:134:VAL:HB	1:A:135:ASN:HB3	1.99	0.44
1:A:29:THR:OG1	1:A:38:VAL:N	2.31	0.44
1:C:120:VAL:HG11	1:C:160:TRP:CE3	2.53	0.44
1:C:120:VAL:CG1	1:C:161:PHE:H	2.30	0.44
1:D:389:ARG:NH2	1:D:427:LYS:HA	2.33	0.44
1:B:39:VAL:HG22	1:B:207:ASN:O	2.18	0.44
1:B:2580:ILE:HA	1:B:2583:ASN:OD1	2.18	0.44
1:C:2422:TYR:O	1:C:2425:GLU:HB3	2.17	0.44
1:C:2287:MET:HA	1:C:2290:LEU:HG	2.00	0.44
1:B:282:TRP:H	1:B:308:LEU:N	2.16	0.44
1:D:311:GLY:HA2	1:D:359:PRO:CD	2.47	0.44
1:A:2728:LYS:O	1:A:2732:ARG:N	2.41	0.44
1:C:243:PHE:CE2	1:C:432:ILE:HA	2.52	0.44
1:B:2460:TYR:HA	1:B:2566:ARG:CZ	2.48	0.44
1:B:439:GLU:O	1:B:442:ASP:HB3	2.18	0.44
1:C:25:GLY:HA2	1:C:43:ALA:HB2	1.99	0.44
1:C:484:VAL:HA	1:C:506:ARG:HH11	1.82	0.44
1:D:410:GLU:HA	1:D:411:GLU:CB	2.43	0.44
1:B:2353:THR:HA	1:B:2354:LEU:HA	1.70	0.44
1:C:70:LYS:O	1:C:74:LYS:HG2	2.18	0.44
1:A:163:ILE:HD12	1:A:163:ILE:H	1.83	0.44
1:D:120:VAL:HG13	1:D:161:PHE:HB2	2.00	0.44
1:A:117:TYR:CD1	1:A:176:VAL:N	2.84	0.44
1:A:279:LYS:O	1:A:281:LEU:HD13	2.18	0.44
1:A:52:LYS:O	1:A:55:ASP:N	2.47	0.44
1:C:282:TRP:H	1:C:308:LEU:N	2.16	0.44
1:C:389:ARG:NH2	1:C:427:LYS:HA	2.33	0.44
1:A:2547:GLY:H	1:B:2544:ARG:HD2	1.83	0.44
1:D:2422:TYR:O	1:D:2425:GLU:HB3	2.18	0.44
1:A:2296:PRO:HB3	1:A:2321:LEU:HD21	1.99	0.44
1:A:2288:ASN:HD22	1:A:2416:LEU:HD23	1.82	0.44
1:D:2534:CYS:O	1:D:2538:VAL:HG13	2.18	0.44
1:A:25:GLY:HA2	1:A:43:ALA:HB2	1.99	0.44
1:C:524:GLN:HA	1:C:527:PHE:CB	2.48	0.44
1:C:13:ASP:OD1	1:C:225:LYS:HD3	2.18	0.44
1:C:199:GLN:HG3	1:C:204:PRO:O	2.17	0.44
1:A:389:ARG:NH2	1:A:427:LYS:HA	2.33	0.44
1:D:69:GLN:NE2	1:D:100:LYS:HG2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:405:PRO:HD2	1:B:417:LYS:HD2	2.00	0.44
1:C:37:CYS:HB2	1:C:150:THR:HA	1.99	0.44
1:C:65:ARG:HH21	1:C:103:ASN:HB3	1.82	0.44
1:C:168:LYS:HZ2	1:D:247:GLN:HA	1.82	0.44
1:B:140:ALA:HA	1:B:147:MET:HA	2.00	0.44
1:A:362:ASN:HB3	1:A:363:ASP:H	1.54	0.44
1:A:2544:ARG:HH22	1:D:2571:LEU:HB3	1.82	0.44
1:C:2290:LEU:HA	1:C:2293:PHE:CE2	2.53	0.44
1:A:2460:TYR:HA	1:A:2566:ARG:CZ	2.48	0.44
1:D:2459:GLY:C	1:D:2461:LEU:H	2.19	0.44
1:B:2457:ILE:O	1:B:2461:LEU:HB2	2.18	0.44
1:B:2703:GLU:HA	1:B:2706:MET:CE	2.46	0.44
1:D:2348:VAL:HA	1:D:2351:GLN:CD	2.38	0.44
1:B:116:GLN:HA	1:B:175:SER:HA	2.00	0.44
1:B:2559:GLU:OE1	1:D:2301:ARG:HB3	2.18	0.44
1:A:2693:ASN:HB3	1:D:2698:LEU:HD11	1.98	0.44
1:A:246:GLU:O	1:A:248:GLU:N	2.42	0.43
1:A:392:HIS:CD2	1:A:394:CYS:HG	2.16	0.43
1:D:11:ILE:HG12	1:D:115:ILE:HG13	2.00	0.43
1:D:147:MET:O	1:D:210:ASN:ND2	2.37	0.43
1:D:65:ARG:HH21	1:D:103:ASN:HB3	1.82	0.43
1:A:134:VAL:HA	1:A:135:ASN:HA	1.87	0.43
1:A:27:ILE:HG23	1:A:39:VAL:HG12	1.98	0.43
1:A:65:ARG:HH21	1:A:103:ASN:HB3	1.82	0.43
1:B:38:VAL:HB	1:B:39:VAL:H	1.58	0.43
1:B:39:VAL:HG22	1:B:207:ASN:C	2.39	0.43
1:B:66:TYR:CZ	1:B:160:TRP:HB2	2.53	0.43
1:C:2580:ILE:HG23	1:C:2584:LEU:HD13	2.01	0.43
1:D:2430:VAL:N	1:D:2431:ILE:CD1	2.73	0.43
1:D:2540:SER:O	1:D:2544:ARG:NH2	2.51	0.43
1:D:309:ALA:H	1:D:310:THR:HB	1.82	0.43
1:C:2349:GLY:N	1:C:2351:GLN:OE1	2.35	0.43
1:B:533:GLY:HA2	1:B:537:ARG:CB	2.47	0.43
1:A:2724:THR:HG23	1:A:2727:ARG:NE	2.33	0.43
1:A:136:LYS:HB3	1:A:188:ASN:HD22	1.82	0.43
1:A:197:SER:HA	1:A:207:ASN:ND2	2.34	0.43
1:C:143:GLU:HG3	1:C:144:LYS:N	2.33	0.43
1:C:117:TYR:CD2	1:C:170:ARG:HD3	2.53	0.43
1:B:136:LYS:HG2	1:B:147:MET:SD	2.57	0.43
1:B:120:VAL:CG1	1:B:161:PHE:H	2.30	0.43
1:B:2571:LEU:HB3	1:C:2544:ARG:HH22	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2287:MET:HA	1:D:2290:LEU:HG	2.00	0.43
1:B:253:CYS:O	1:B:281:LEU:HD22	2.18	0.43
1:D:439:GLU:O	1:D:442:ASP:HB3	2.18	0.43
1:A:233:ILE:H	1:A:384:ARG:HE	1.66	0.43
1:C:2460:TYR:HA	1:C:2566:ARG:CZ	2.48	0.43
1:A:465:ILE:HD11	1:A:470:ARG:NH2	2.32	0.43
1:C:239:VAL:HB	1:C:283:GLU:HG3	2.00	0.43
1:C:71:GLN:HA	1:C:74:LYS:NZ	2.34	0.43
1:B:71:GLN:HA	1:B:74:LYS:NZ	2.33	0.43
1:B:526:PRO:O	1:B:532:ASP:HB2	2.18	0.43
1:C:482:TYR:HB2	1:C:488:THR:HA	2.00	0.43
1:D:2532:LEU:HD23	1:D:2532:LEU:HA	1.85	0.43
1:B:682:THR:CA	1:B:683:GLY:CA	2.96	0.43
1:A:2689:GLU:HA	1:A:2692:GLN:HB3	2.00	0.43
1:C:163:ILE:HD12	1:C:163:ILE:H	1.83	0.43
1:D:193:LEU:HD13	1:D:209:VAL:HG13	2.00	0.43
1:D:219:LYS:HA	1:D:219:LYS:HD3	1.79	0.43
1:C:133:THR:OG1	1:C:159:SER:OG	2.22	0.43
1:C:208:GLU:HG2	1:C:209:VAL:N	2.28	0.43
1:B:120:VAL:HG13	1:B:161:PHE:HB2	2.00	0.43
1:B:131:TYR:CZ	1:B:132:LEU:HG	2.54	0.43
1:A:2540:SER:HG	1:A:2541:HIS:H	1.67	0.43
1:B:2301:ARG:HB3	1:D:2559:GLU:OE1	2.18	0.43
1:A:2296:PRO:O	1:A:2297:PHE:CG	2.70	0.43
1:C:514:ASN:ND2	1:C:518:GLN:HE21	2.17	0.43
1:D:2362:VAL:O	1:D:2365:LYS:HB3	2.19	0.43
1:A:120:VAL:HG13	1:A:161:PHE:HB2	2.01	0.43
1:A:16:SER:O	1:A:17:LEU:HG	2.19	0.43
1:A:184:LEU:O	1:A:191:GLN:NE2	2.48	0.43
1:A:39:VAL:HG22	1:A:207:ASN:O	2.17	0.43
1:C:309:ALA:H	1:C:310:THR:HB	1.83	0.43
1:C:266:THR:O	1:C:267:THR:OG1	2.28	0.43
1:A:2586:PHE:O	1:A:2590:ILE:HG23	2.18	0.43
1:C:2325:ILE:HG22	1:C:2329:LYS:HZ2	1.71	0.43
1:A:514:ASN:ND2	1:A:518:GLN:HE21	2.17	0.43
1:A:2732:ARG:HA	1:A:2733:ILE:CA	2.48	0.43
1:C:223:PHE:CE1	1:C:293:ARG:HB2	2.52	0.43
1:A:86:ALA:O	1:A:89:LEU:HB2	2.18	0.43
1:C:2689:GLU:HA	1:C:2692:GLN:HB3	2.00	0.43
1:D:65:ARG:CZ	1:D:100:LYS:HD3	2.48	0.43
1:A:174:ASP:N	1:A:174:ASP:OD1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:128:SER:C	1:A:441:ARG:HE	2.22	0.43
1:A:127:LYS:NZ	1:A:444:ASP:OD2	2.39	0.43
1:B:131:TYR:C	1:B:151:LEU:HA	2.39	0.43
1:B:2422:TYR:O	1:B:2425:GLU:HB3	2.18	0.43
1:C:2580:ILE:HA	1:C:2583:ASN:OD1	2.18	0.43
1:B:2534:CYS:O	1:B:2538:VAL:HG13	2.18	0.43
1:B:2326:ALA:CA	1:B:2329:LYS:CE	2.95	0.43
1:A:2341:ILE:O	1:A:2345:ILE:HG22	2.19	0.43
1:D:282:TRP:H	1:D:308:LEU:N	2.16	0.43
1:B:279:LYS:O	1:B:281:LEU:HD13	2.19	0.43
1:A:312:HIS:HB2	1:A:356:VAL:HG23	2.01	0.43
1:C:2732:ARG:HA	1:C:2733:ILE:CA	2.48	0.43
1:B:2732:ARG:HA	1:B:2733:ILE:CA	2.47	0.43
1:B:481:VAL:CG2	1:B:555:LEU:HD21	2.48	0.43
1:C:484:VAL:HG13	1:C:562:HIS:NE2	2.34	0.43
1:A:439:GLU:O	1:A:442:ASP:HB3	2.19	0.43
1:A:545:ARG:HG3	1:A:549:PHE:HE2	1.82	0.43
1:C:2555:LYS:NZ	1:C:2562:LEU:HD21	2.30	0.43
1:A:239:VAL:HB	1:A:283:GLU:HG3	2.00	0.43
1:D:70:LYS:O	1:D:74:LYS:HG2	2.19	0.43
1:C:2314:TRP:HA	1:C:2317:MET:HG2	1.99	0.43
1:C:2698:LEU:HD11	1:D:2693:ASN:HB3	2.00	0.43
1:D:131:TYR:C	1:D:151:LEU:HA	2.39	0.43
1:D:160:TRP:CD1	1:D:187:VAL:HG13	2.54	0.43
1:D:120:VAL:HG11	1:D:160:TRP:CE3	2.53	0.43
1:D:39:VAL:HG22	1:D:207:ASN:C	2.39	0.43
1:B:418:ILE:HG23	1:B:420:THR:OG1	2.19	0.43
1:C:134:VAL:HB	1:C:135:ASN:HB3	1.99	0.43
1:D:392:HIS:HD2	1:D:395:THR:HG22	1.80	0.43
1:B:11:ILE:HG12	1:B:115:ILE:HG13	2.00	0.43
1:B:134:VAL:HA	1:B:135:ASN:HA	1.87	0.43
1:B:134:VAL:HG12	1:B:138:LEU:HD22	2.00	0.43
1:B:16:SER:O	1:B:17:LEU:HG	2.19	0.43
1:A:2534:CYS:O	1:A:2538:VAL:HG13	2.18	0.43
1:A:2456:SER:CB	1:A:2535:ILE:HG22	2.49	0.43
1:B:2296:PRO:O	1:B:2297:PHE:CG	2.71	0.43
1:D:253:CYS:O	1:D:281:LEU:HD22	2.18	0.43
1:B:477:LEU:CG	1:B:555:LEU:HD22	2.47	0.43
1:B:2461:LEU:HB3	1:C:2411:PHE:HE2	1.83	0.43
1:A:494:VAL:O	1:A:497:VAL:HB	2.18	0.43
1:A:2349:GLY:N	1:A:2351:GLN:OE1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2348:VAL:HA	1:B:2351:GLN:CD	2.38	0.43
1:A:2698:LEU:HD11	1:B:2693:ASN:HB3	2.01	0.43
1:C:682:THR:CA	1:C:683:GLY:CA	2.97	0.43
1:D:134:VAL:HG12	1:D:138:LEU:HD22	2.01	0.43
1:D:39:VAL:HG22	1:D:207:ASN:O	2.18	0.43
1:C:131:TYR:CZ	1:C:132:LEU:HG	2.53	0.43
1:D:405:PRO:HD2	1:D:417:LYS:HD2	2.00	0.43
1:D:418:ILE:HG23	1:D:420:THR:OG1	2.19	0.43
1:B:9:LEU:HD23	1:B:226:TRP:CE2	2.54	0.43
1:C:2432:LYS:HA	1:C:2435:THR:HG21	2.00	0.43
1:C:2341:ILE:O	1:C:2345:ILE:HG22	2.18	0.43
1:C:2534:CYS:O	1:C:2538:VAL:HG13	2.18	0.43
1:D:554:ARG:O	1:D:558:ARG:N	2.51	0.43
1:A:484:VAL:HG13	1:A:562:HIS:NE2	2.34	0.43
1:D:524:GLN:HA	1:D:527:PHE:CB	2.48	0.43
1:A:2314:TRP:HA	1:A:2317:MET:HG2	1.99	0.43
1:D:67:SER:OG	1:D:68:ALA:N	2.52	0.43
1:D:526:PRO:O	1:D:532:ASP:HB2	2.18	0.43
1:A:2195:GLN:CA	1:A:2196:ILE:CA	2.97	0.43
1:D:136:LYS:HB3	1:D:188:ASN:HD22	1.84	0.43
1:D:9:LEU:HD23	1:D:226:TRP:CE2	2.54	0.43
1:A:117:TYR:CD2	1:A:170:ARG:HD3	2.53	0.43
1:A:193:LEU:HD13	1:A:209:VAL:HG13	2.01	0.43
1:B:246:GLU:O	1:B:248:GLU:N	2.44	0.43
1:B:405:PRO:HD2	1:B:417:LYS:HA	2.01	0.43
1:C:97:ASP:O	1:C:100:LYS:HB2	2.19	0.43
1:C:16:SER:HB3	1:C:57:LEU:HA	2.01	0.43
1:C:184:LEU:O	1:C:191:GLN:NE2	2.48	0.43
1:C:160:TRP:CD1	1:C:187:VAL:HG13	2.54	0.43
1:C:193:LEU:HD13	1:C:209:VAL:HG13	2.01	0.43
1:C:279:LYS:O	1:C:281:LEU:HD13	2.18	0.43
1:B:134:VAL:HA	1:B:137:ARG:HH12	1.82	0.43
1:B:136:LYS:HB3	1:B:188:ASN:HD22	1.84	0.43
1:C:2368:PHE:O	1:C:2372:PHE:HD2	2.01	0.43
1:D:2601:GLN:HA	1:D:2604:GLU:OE2	2.19	0.43
1:C:2552:VAL:HB	1:D:2523:ASP:HB2	2.01	0.43
1:A:2523:ASP:HB2	1:D:2552:VAL:HB	2.01	0.43
1:B:484:VAL:HA	1:B:506:ARG:HH11	1.83	0.43
1:C:465:ILE:HD11	1:C:470:ARG:NH2	2.33	0.43
1:B:70:LYS:O	1:B:74:LYS:HG2	2.19	0.43
1:A:482:TYR:HB2	1:A:488:THR:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2195:GLN:CA	1:B:2196:ILE:CA	2.96	0.43
1:A:2560:GLU:N	1:A:2560:GLU:OE1	2.44	0.43
1:A:249:LYS:HZ3	1:A:267:THR:N	2.17	0.43
1:A:131:TYR:C	1:A:151:LEU:HA	2.39	0.43
1:B:65:ARG:CZ	1:B:100:LYS:HD3	2.49	0.43
1:B:120:VAL:HG11	1:B:160:TRP:CE3	2.53	0.43
1:B:134:VAL:HB	1:B:135:ASN:HB3	2.00	0.43
1:B:133:THR:OG1	1:B:159:SER:OG	2.23	0.43
1:B:160:TRP:CD1	1:B:187:VAL:HG13	2.54	0.43
1:B:208:GLU:HG2	1:B:209:VAL:N	2.27	0.43
1:B:219:LYS:HA	1:B:219:LYS:HD3	1.79	0.43
1:C:244:HIS:HA	1:C:430:PHE:HA	2.01	0.43
1:C:2456:SER:CB	1:C:2535:ILE:HG22	2.48	0.43
1:B:2368:PHE:O	1:B:2372:PHE:HD2	2.01	0.43
1:B:494:VAL:O	1:B:497:VAL:HB	2.19	0.43
1:A:202:ASP:OD1	1:A:203:ASN:N	2.52	0.43
1:D:2349:GLY:N	1:D:2351:GLN:OE1	2.36	0.43
1:B:482:TYR:HB2	1:B:488:THR:HA	2.01	0.43
1:C:86:ALA:O	1:C:89:LEU:HB2	2.18	0.43
1:D:2456:SER:CB	1:D:2535:ILE:HG22	2.49	0.43
1:D:743:MET:CA	1:D:744:CYS:CA	2.97	0.43
1:C:216:THR:HG22	1:C:217:SER:O	2.19	0.43
1:D:216:THR:HG22	1:D:217:SER:O	2.18	0.43
1:C:2364:ASN:HA	1:C:2367:ILE:HG22	2.01	0.43
1:B:20:GLU:OE1	1:B:46:LEU:HG	2.19	0.43
1:B:45:ASP:N	1:B:48:ASN:O	2.52	0.43
1:D:298:TYR:O	1:D:301:SER:OG	2.15	0.43
1:A:45:ASP:HB3	1:A:48:ASN:H	1.83	0.43
1:A:2437:ASN:CB	1:A:2592:THR:CB	2.96	0.43
1:A:2580:ILE:HG23	1:A:2584:LEU:HD13	2.00	0.43
1:B:2540:SER:O	1:B:2544:ARG:NH2	2.51	0.43
1:D:279:LYS:O	1:D:281:LEU:HD13	2.19	0.43
1:A:231:ASP:O	1:A:233:ILE:HG23	2.19	0.43
1:B:554:ARG:O	1:B:558:ARG:N	2.51	0.43
1:A:2319:ILE:HB	1:A:2323:ILE:HD13	2.01	0.43
1:A:2459:GLY:O	1:A:2461:LEU:N	2.44	0.43
1:A:2726:GLN:CD	1:A:2729:GLN:HE22	2.22	0.43
1:B:2364:ASN:HA	1:B:2367:ILE:HG22	2.01	0.43
1:D:134:VAL:HB	1:D:135:ASN:HB3	2.00	0.42
1:D:184:LEU:O	1:D:191:GLN:NE2	2.46	0.42
1:A:140:ALA:HA	1:A:147:MET:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:CYS:HB2	1:A:150:THR:HA	1.99	0.42
1:A:120:VAL:HG11	1:A:160:TRP:CE3	2.53	0.42
1:B:193:LEU:HD13	1:B:209:VAL:HG13	2.00	0.42
1:C:45:ASP:HB3	1:C:48:ASN:H	1.83	0.42
1:B:2319:ILE:HB	1:B:2323:ILE:HD13	2.01	0.42
1:A:2411:PHE:HE2	1:D:2461:LEU:HB3	1.84	0.42
1:A:256:HIS:CE1	1:A:257:ARG:HG3	2.54	0.42
1:B:517:LYS:HE3	1:B:517:LYS:HB3	1.74	0.42
1:C:517:LYS:HE3	1:C:517:LYS:HB3	1.75	0.42
1:A:517:LYS:HE3	1:A:517:LYS:HB3	1.74	0.42
1:A:382:VAL:HA	1:A:383:PRO:HD2	1.92	0.42
1:D:460:LEU:C	1:D:463:GLY:H	2.23	0.42
1:A:216:THR:HG22	1:A:217:SER:O	2.19	0.42
1:A:460:LEU:C	1:A:463:GLY:H	2.23	0.42
1:A:682:THR:CA	1:A:683:GLY:CA	2.97	0.42
1:D:97:ASP:O	1:D:100:LYS:HB2	2.19	0.42
1:D:117:TYR:CD1	1:D:176:VAL:N	2.84	0.42
1:D:143:GLU:HG3	1:D:144:LYS:N	2.33	0.42
1:D:226:TRP:CD1	1:D:226:TRP:N	2.84	0.42
1:A:131:TYR:CZ	1:A:132:LEU:HG	2.53	0.42
1:A:309:ALA:H	1:A:310:THR:HB	1.83	0.42
1:C:66:TYR:CZ	1:C:160:TRP:HB2	2.54	0.42
1:C:178:ILE:HB	1:D:376:ARG:NH1	2.32	0.42
1:C:16:SER:O	1:C:17:LEU:HG	2.19	0.42
1:C:128:SER:C	1:C:441:ARG:HE	2.22	0.42
1:C:65:ARG:CZ	1:C:100:LYS:HD3	2.49	0.42
1:D:399:VAL:HA	1:D:420:THR:HB	2.00	0.42
1:B:143:GLU:HG3	1:B:144:LYS:N	2.33	0.42
1:A:2580:ILE:HA	1:A:2583:ASN:OD1	2.18	0.42
1:A:2571:LEU:HD23	1:B:2543:LEU:HD12	2.00	0.42
1:B:2583:ASN:HA	1:C:2586:PHE:CE1	2.54	0.42
1:C:2579:ILE:O	1:C:2583:ASN:ND2	2.52	0.42
1:C:2589:ILE:O	1:C:2592:THR:OG1	2.27	0.42
1:D:2368:PHE:O	1:D:2372:PHE:HD2	2.02	0.42
1:B:515:ILE:HB	1:B:573:TYR:CE2	2.53	0.42
1:C:511:ARG:HD2	1:C:515:ILE:HG12	2.00	0.42
1:C:515:ILE:HB	1:C:573:TYR:CE2	2.54	0.42
1:C:233:ILE:H	1:C:384:ARG:HE	1.66	0.42
1:C:256:HIS:CE1	1:C:257:ARG:HG3	2.54	0.42
1:D:2443:LEU:O	1:D:2446:ALA:HB3	2.20	0.42
1:C:80:ALA:H	1:C:82:SER:HB2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:197:SER:HA	1:C:207:ASN:ND2	2.34	0.42
1:C:425:GLU:O	1:C:426:ASP:HB2	2.20	0.42
1:A:2579:ILE:O	1:A:2583:ASN:ND2	2.52	0.42
1:D:2589:ILE:O	1:D:2592:THR:OG1	2.29	0.42
1:D:52:LYS:O	1:D:55:ASP:N	2.48	0.42
1:C:2319:ILE:HB	1:C:2323:ILE:HD13	2.01	0.42
1:A:116:GLN:HA	1:A:175:SER:HA	2.00	0.42
1:A:542:GLY:HA2	1:A:549:PHE:CZ	2.54	0.42
1:D:2726:GLN:CD	1:D:2729:GLN:HE22	2.22	0.42
1:C:71:GLN:HA	1:C:74:LYS:HG2	2.01	0.42
1:D:80:ALA:H	1:D:82:SER:HB2	1.85	0.42
1:D:134:VAL:HA	1:D:137:ARG:HH22	1.84	0.42
1:D:197:SER:HA	1:D:207:ASN:ND2	2.33	0.42
1:D:128:SER:C	1:D:441:ARG:HE	2.23	0.42
1:A:66:TYR:CZ	1:A:160:TRP:HB2	2.54	0.42
1:B:145:ASN:HB2	1:B:212:VAL:HG23	2.02	0.42
1:B:97:ASP:O	1:B:100:LYS:HB2	2.19	0.42
1:C:247:GLN:N	1:C:428:GLU:OE2	2.52	0.42
1:C:2586:PHE:O	1:C:2590:ILE:HG23	2.18	0.42
1:B:359:PRO:CB	1:B:360:GLU:HA	2.48	0.42
1:D:494:VAL:O	1:D:497:VAL:HB	2.19	0.42
1:C:439:GLU:O	1:C:442:ASP:HB3	2.19	0.42
1:B:202:ASP:OD1	1:B:203:ASN:N	2.52	0.42
1:D:116:GLN:HA	1:D:175:SER:HA	2.00	0.42
1:A:572:GLU:OE1	1:A:572:GLU:N	2.38	0.42
1:A:452:VAL:HG13	1:A:453:LEU:HD12	2.01	0.42
1:C:538:LEU:HD12	1:C:539:GLU:N	2.35	0.42
1:B:216:THR:HG22	1:B:217:SER:O	2.18	0.42
1:D:682:THR:CA	1:D:683:GLY:CA	2.96	0.42
1:D:131:TYR:CZ	1:D:132:LEU:HG	2.54	0.42
1:A:69:GLN:NE2	1:A:100:LYS:HG2	2.34	0.42
1:C:120:VAL:HG13	1:C:161:PHE:HB2	2.01	0.42
1:C:38:VAL:HB	1:C:39:VAL:H	1.60	0.42
1:B:2571:LEU:HD23	1:C:2543:LEU:HD12	2.01	0.42
1:D:2563:PHE:HA	1:D:2563:PHE:HD1	1.73	0.42
1:B:2456:SER:CB	1:B:2535:ILE:HG22	2.49	0.42
1:C:2532:LEU:HD23	1:C:2532:LEU:HA	1.86	0.42
1:C:312:HIS:HB2	1:C:356:VAL:HG23	2.01	0.42
1:D:481:VAL:CG2	1:D:555:LEU:HD21	2.48	0.42
1:D:484:VAL:HG13	1:D:562:HIS:NE2	2.35	0.42
1:D:2552:VAL:CA	1:D:2553:LEU:HB2	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:515:ILE:HB	1:A:573:TYR:CE2	2.54	0.42
1:D:2460:TYR:HA	1:D:2566:ARG:CZ	2.48	0.42
1:B:484:VAL:HG13	1:B:562:HIS:NE2	2.35	0.42
1:C:494:VAL:O	1:C:497:VAL:HB	2.18	0.42
1:C:477:LEU:CG	1:C:555:LEU:HD22	2.47	0.42
1:D:2703:GLU:HG3	1:D:2706:MET:HE3	2.00	0.42
1:A:524:GLN:HA	1:A:527:PHE:CB	2.48	0.42
1:B:80:ALA:H	1:B:82:SER:HB2	1.85	0.42
1:A:11:ILE:HG12	1:A:115:ILE:HG13	2.02	0.42
1:A:282:TRP:H	1:A:308:LEU:N	2.16	0.42
1:B:425:GLU:O	1:B:426:ASP:HB2	2.20	0.42
1:C:136:LYS:HB3	1:C:136:LYS:HE3	1.82	0.42
1:C:140:ALA:HA	1:C:147:MET:HA	2.00	0.42
1:D:405:PRO:HD2	1:D:417:LYS:HA	2.01	0.42
1:A:2586:PHE:CE1	1:D:2583:ASN:HA	2.54	0.42
1:C:2290:LEU:HA	1:C:2293:PHE:CD2	2.54	0.42
1:D:2327:LEU:O	1:D:2330:PRO:HD2	2.20	0.42
1:A:2321:LEU:O	1:A:2325:ILE:HD12	2.20	0.42
1:C:359:PRO:CB	1:C:360:GLU:HA	2.48	0.42
1:B:2552:VAL:HB	1:C:2523:ASP:HB2	2.01	0.42
1:C:231:ASP:O	1:C:233:ILE:HG23	2.20	0.42
1:A:481:VAL:CG2	1:A:555:LEU:HD21	2.49	0.42
1:B:2355:PHE:O	1:B:2358:GLY:N	2.50	0.42
1:B:489:ASN:HA	1:B:490:SER:HA	1.76	0.42
1:C:2195:GLN:CA	1:C:2196:ILE:CA	2.96	0.42
1:D:2195:GLN:CA	1:D:2196:ILE:CA	2.97	0.42
1:C:743:MET:CA	1:C:744:CYS:CA	2.98	0.42
1:D:16:SER:O	1:D:17:LEU:HG	2.19	0.42
1:C:131:TYR:C	1:C:151:LEU:HA	2.39	0.42
1:D:244:HIS:HE1	1:D:428:GLU:O	2.03	0.42
1:B:134:VAL:HA	1:B:137:ARG:HH22	1.84	0.42
1:B:16:SER:HB3	1:B:57:LEU:HA	2.02	0.42
1:C:266:THR:HA	1:C:415:MET:SD	2.60	0.42
1:D:2541:HIS:HA	1:D:2544:ARG:CG	2.50	0.42
1:B:2601:GLN:HA	1:B:2604:GLU:OE2	2.19	0.42
1:C:2552:VAL:CA	1:C:2553:LEU:HB2	2.38	0.42
1:B:2552:VAL:CA	1:B:2553:LEU:HB2	2.38	0.42
1:B:2728:LYS:O	1:B:2732:ARG:N	2.42	0.42
1:C:481:VAL:CG2	1:C:555:LEU:HD21	2.49	0.42
1:B:256:HIS:CE1	1:B:257:ARG:HG3	2.54	0.42
1:D:256:HIS:CE1	1:D:257:ARG:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:116:GLN:HA	1:C:175:SER:HA	2.00	0.42
1:B:2726:GLN:CD	1:B:2729:GLN:HE22	2.22	0.42
1:D:239:VAL:HB	1:D:283:GLU:HG3	2.02	0.42
1:D:572:GLU:C	1:D:574:ILE:H	2.23	0.42
1:B:572:GLU:C	1:B:574:ILE:H	2.23	0.42
1:B:116:GLN:N	1:B:119:ASN:OD1	2.39	0.42
1:C:471:ARG:O	1:C:475:LYS:HB2	2.20	0.42
1:D:2724:THR:HG23	1:D:2727:ARG:HE	1.85	0.42
1:A:2364:ASN:HA	1:A:2367:ILE:HG22	2.01	0.42
1:D:2364:ASN:HA	1:D:2367:ILE:HG22	2.01	0.42
1:B:743:MET:CA	1:B:744:CYS:CA	2.97	0.42
1:A:244:HIS:HA	1:A:430:PHE:HA	2.01	0.42
1:D:140:ALA:HA	1:D:147:MET:HA	2.00	0.42
1:A:65:ARG:CZ	1:A:100:LYS:HD3	2.49	0.42
1:A:160:TRP:CD1	1:A:187:VAL:HG13	2.54	0.42
1:A:16:SER:HB3	1:A:57:LEU:HA	2.01	0.42
1:B:244:HIS:ND1	1:B:429:ALA:O	2.53	0.42
1:C:286:VAL:N	1:C:303:PHE:CZ	2.86	0.42
1:B:197:SER:HA	1:B:207:ASN:ND2	2.34	0.42
1:C:2571:LEU:HD23	1:D:2543:LEU:HD12	2.00	0.42
1:A:2290:LEU:HA	1:A:2293:PHE:CD2	2.54	0.42
1:B:565:GLN:O	1:B:570:ASN:ND2	2.52	0.42
1:C:2726:GLN:CD	1:C:2729:GLN:HE22	2.22	0.42
1:A:2355:PHE:O	1:A:2358:GLY:N	2.51	0.42
1:A:2362:VAL:O	1:A:2365:LYS:HB3	2.20	0.42
1:A:743:MET:CA	1:A:744:CYS:CA	2.98	0.42
1:A:266:THR:HA	1:A:415:MET:SD	2.60	0.42
1:D:174:ASP:OD1	1:D:174:ASP:N	2.51	0.42
1:A:137:ARG:HH21	1:A:138:LEU:HD13	1.85	0.42
1:A:221:VAL:HB	1:A:222:LEU:H	1.56	0.42
1:A:97:ASP:O	1:A:100:LYS:HB2	2.19	0.42
1:C:134:VAL:HA	1:C:135:ASN:HA	1.86	0.42
1:C:219:LYS:HA	1:C:219:LYS:HD3	1.80	0.42
1:D:45:ASP:N	1:D:48:ASN:O	2.52	0.42
1:B:25:GLY:HA2	1:B:43:ALA:HB2	2.02	0.42
1:D:202:ASP:OD1	1:D:203:ASN:N	2.52	0.42
1:B:542:GLY:HA2	1:B:549:PHE:CZ	2.55	0.42
1:C:572:GLU:C	1:C:574:ILE:H	2.24	0.42
1:D:2314:TRP:HA	1:D:2317:MET:HG2	2.02	0.42
1:A:2443:LEU:O	1:A:2446:ALA:HB3	2.20	0.42
1:B:2724:THR:HG23	1:B:2727:ARG:NE	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:485:THR:HG23	1:A:487:GLY:N	2.35	0.42
1:A:247:GLN:N	1:A:428:GLU:OE2	2.52	0.42
1:D:60:LEU:HD23	1:D:123:LEU:HD13	2.01	0.42
1:D:135:ASN:HD22	1:D:139:PRO:C	2.23	0.42
1:D:145:ASN:HB2	1:D:212:VAL:HG23	2.02	0.42
1:A:60:LEU:HD23	1:A:123:LEU:HD13	2.02	0.42
1:B:60:LEU:HD23	1:B:123:LEU:HD13	2.01	0.42
1:A:2437:ASN:HB2	1:A:2592:THR:HB	2.02	0.42
1:B:280:ALA:HB1	1:B:282:TRP:HE3	1.85	0.42
1:B:554:ARG:O	1:B:557:TYR:HB3	2.20	0.42
1:B:452:VAL:HG13	1:B:453:LEU:HD12	2.02	0.42
1:B:2314:TRP:HA	1:B:2317:MET:HG2	2.02	0.42
1:A:538:LEU:HD12	1:A:539:GLU:N	2.35	0.42
1:C:485:THR:HG23	1:C:487:GLY:N	2.35	0.42
1:B:556:CYS:O	1:B:559:VAL:HG22	2.20	0.42
1:D:117:TYR:CD2	1:D:176:VAL:HG22	2.55	0.41
1:D:135:ASN:C	1:D:137:ARG:HB3	2.40	0.41
1:B:392:HIS:CD2	1:B:395:THR:H	2.38	0.41
1:C:11:ILE:HG12	1:C:115:ILE:HG13	2.02	0.41
1:A:2541:HIS:HA	1:A:2544:ARG:CG	2.50	0.41
1:B:2444:THR:O	1:B:2447:LEU:HB3	2.20	0.41
1:C:2321:LEU:O	1:C:2325:ILE:HD12	2.20	0.41
1:B:2290:LEU:HA	1:B:2293:PHE:CD2	2.55	0.41
1:D:359:PRO:CB	1:D:360:GLU:HA	2.48	0.41
1:A:2552:VAL:HG12	1:A:2554:ARG:HG3	2.02	0.41
1:C:2728:LYS:O	1:C:2732:ARG:N	2.41	0.41
1:A:2461:LEU:HD12	1:B:2411:PHE:HE2	1.85	0.41
1:A:477:LEU:CG	1:A:555:LEU:HD22	2.47	0.41
1:C:498:VAL:HA	1:C:501:LYS:HD2	2.02	0.41
1:D:2465:ASP:OD1	1:D:2562:LEU:HA	2.20	0.41
1:D:482:TYR:HB2	1:D:488:THR:HA	2.01	0.41
1:B:446:ALA:O	1:B:449:ALA:N	2.53	0.41
1:C:460:LEU:C	1:C:463:GLY:H	2.23	0.41
1:B:460:LEU:C	1:B:463:GLY:H	2.23	0.41
1:A:247:GLN:HA	1:D:168:LYS:HZ2	1.84	0.41
1:A:392:HIS:CD2	1:A:395:THR:H	2.38	0.41
1:A:430:PHE:HB2	1:A:431:ALA:H	1.45	0.41
1:A:180:ASP:N	1:A:180:ASP:OD1	2.53	0.41
1:A:65:ARG:HD3	1:A:69:GLN:OE1	2.20	0.41
1:D:425:GLU:O	1:D:426:ASP:HB2	2.20	0.41
1:B:135:ASN:HD21	1:B:140:ALA:HA	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2541:HIS:HA	1:C:2544:ARG:CG	2.50	0.41
1:C:2543:LEU:HD23	1:C:2543:LEU:HA	1.82	0.41
1:D:2288:ASN:OD1	1:D:2289:LEU:N	2.53	0.41
1:D:2337:ILE:HG23	1:D:2338:ALA:N	2.35	0.41
1:B:2327:LEU:O	1:B:2330:PRO:HD2	2.20	0.41
1:A:312:HIS:HB3	1:A:313:TYR:H	1.47	0.41
1:C:231:ASP:OD1	1:C:232:ASP:N	2.52	0.41
1:C:431:ALA:HB1	1:C:432:ILE:HD12	2.02	0.41
1:C:202:ASP:OD1	1:C:203:ASN:N	2.52	0.41
1:B:474:THR:HB	1:B:552:ILE:HD11	2.03	0.41
1:B:239:VAL:HB	1:B:283:GLU:HG3	2.02	0.41
1:D:71:GLN:HA	1:D:74:LYS:NZ	2.33	0.41
1:A:471:ARG:O	1:A:475:LYS:HB2	2.20	0.41
1:D:10:HIS:HE2	1:D:177:VAL:HA	1.85	0.41
1:B:391:ARG:HB2	1:B:398:TRP:CE3	2.56	0.41
1:C:137:ARG:HH21	1:C:138:LEU:HD13	1.85	0.41
1:C:10:HIS:HE2	1:C:177:VAL:HA	1.86	0.41
1:C:309:ALA:N	1:C:310:THR:HA	2.35	0.41
1:C:65:ARG:HD3	1:C:69:GLN:OE1	2.20	0.41
1:D:392:HIS:CD2	1:D:394:CYS:HG	2.17	0.41
1:B:117:TYR:CD2	1:B:176:VAL:HG22	2.55	0.41
1:A:2273:MET:O	1:A:2276:TRP:HB2	2.20	0.41
1:A:2411:PHE:CE2	1:D:2461:LEU:HD12	2.55	0.41
1:B:2459:GLY:C	1:B:2461:LEU:N	2.74	0.41
1:D:86:ALA:O	1:D:89:LEU:HB2	2.20	0.41
1:D:38:VAL:HB	1:D:39:VAL:H	1.59	0.41
1:D:65:ARG:HD3	1:D:69:GLN:OE1	2.20	0.41
1:A:143:GLU:HG3	1:A:144:LYS:N	2.33	0.41
1:A:133:THR:OG1	1:A:159:SER:OG	2.22	0.41
1:A:2731:GLN:HB3	1:B:393:LEU:HD23	2.02	0.41
1:B:247:GLN:N	1:B:428:GLU:OE2	2.54	0.41
1:C:135:ASN:HD21	1:C:140:ALA:HA	1.86	0.41
1:C:135:ASN:HD22	1:C:139:PRO:C	2.24	0.41
1:C:418:ILE:HG22	1:C:419:GLY:H	1.83	0.41
1:A:2543:LEU:HD12	1:D:2571:LEU:HD23	2.01	0.41
1:B:2543:LEU:HD23	1:B:2543:LEU:HA	1.82	0.41
1:A:2327:LEU:O	1:A:2330:PRO:HD2	2.20	0.41
1:C:554:ARG:O	1:C:557:TYR:HB3	2.20	0.41
1:D:542:GLY:HA2	1:D:549:PHE:CZ	2.55	0.41
1:D:13:ASP:OD1	1:D:225:LYS:HD3	2.20	0.41
1:C:452:VAL:HG13	1:C:453:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2443:LEU:O	1:B:2446:ALA:HB3	2.20	0.41
1:C:2443:LEU:O	1:C:2446:ALA:HB3	2.20	0.41
1:A:517:LYS:O	1:A:520:PHE:HB3	2.21	0.41
1:B:2362:VAL:O	1:B:2365:LYS:HB3	2.19	0.41
1:D:446:ALA:O	1:D:449:ALA:N	2.54	0.41
1:D:2724:THR:HG23	1:D:2727:ARG:NE	2.35	0.41
1:D:16:SER:HB3	1:D:57:LEU:HA	2.02	0.41
1:B:244:HIS:HE1	1:B:428:GLU:O	2.03	0.41
1:B:45:ASP:HB3	1:B:48:ASN:H	1.84	0.41
1:C:180:ASP:OD1	1:C:180:ASP:N	2.53	0.41
1:B:135:ASN:C	1:B:137:ARG:HB3	2.41	0.41
1:C:244:HIS:ND1	1:C:429:ALA:O	2.53	0.41
1:D:20:GLU:OE1	1:D:46:LEU:HG	2.19	0.41
1:C:2437:ASN:CB	1:C:2592:THR:CB	2.96	0.41
1:D:2290:LEU:HA	1:D:2293:PHE:CD2	2.55	0.41
1:D:554:ARG:O	1:D:557:TYR:HB3	2.20	0.41
1:D:2552:VAL:HG12	1:D:2554:ARG:HG3	2.02	0.41
1:A:231:ASP:CG	1:A:232:ASP:H	2.23	0.41
1:D:2273:MET:O	1:D:2276:TRP:HB2	2.21	0.41
1:D:2455:PHE:CE1	1:D:2569:TYR:CZ	3.09	0.41
1:B:481:VAL:HG23	1:B:555:LEU:HD21	2.02	0.41
1:C:557:TYR:HA	1:C:560:LEU:HG	2.03	0.41
1:D:287:VAL:HB	1:D:289:HIS:HA	2.02	0.41
1:D:576:LYS:HB3	1:D:580:PHE:CZ	2.55	0.41
1:D:44:GLY:CA	1:D:50:PRO:HD3	2.51	0.41
1:A:71:GLN:HA	1:A:74:LYS:HG2	2.01	0.41
1:B:86:ALA:O	1:B:89:LEU:HB2	2.20	0.41
1:B:2717:SER:HA	1:B:2720:LYS:HG2	2.02	0.41
1:A:371:ASP:N	1:A:389:ARG:O	2.49	0.41
1:D:180:ASP:OD1	1:D:180:ASP:N	2.53	0.41
1:B:400:HIS:HB3	1:B:401:SER:H	1.68	0.41
1:B:430:PHE:HB2	1:B:431:ALA:H	1.43	0.41
1:C:117:TYR:CD2	1:C:176:VAL:HG22	2.55	0.41
1:D:392:HIS:CD2	1:D:395:THR:H	2.38	0.41
1:B:69:GLN:NE2	1:B:100:LYS:HG2	2.33	0.41
1:B:10:HIS:HE2	1:B:177:VAL:HA	1.85	0.41
1:C:371:ASP:N	1:C:389:ARG:O	2.49	0.41
1:A:2584:LEU:O	1:A:2585:ILE:C	2.59	0.41
1:B:2541:HIS:HA	1:B:2544:ARG:CG	2.51	0.41
1:C:2581:VAL:HG13	1:C:2582:LEU:HD12	2.03	0.41
1:A:2552:VAL:HB	1:B:2523:ASP:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:25:GLY:HA2	1:D:43:ALA:HB2	2.02	0.41
1:A:554:ARG:O	1:A:557:TYR:HB3	2.20	0.41
1:C:542:GLY:HA2	1:C:549:PHE:CZ	2.55	0.41
1:A:2703:GLU:O	1:A:2706:MET:HG2	2.20	0.41
1:A:576:LYS:HB3	1:A:580:PHE:CZ	2.56	0.41
1:C:533:GLY:HA2	1:C:537:ARG:CB	2.47	0.41
1:B:538:LEU:HD12	1:B:539:GLU:N	2.36	0.41
1:D:71:GLN:HA	1:D:74:LYS:HG2	2.03	0.41
1:B:524:GLN:HA	1:B:527:PHE:CB	2.48	0.41
1:A:446:ALA:O	1:A:449:ALA:N	2.53	0.41
1:A:67:SER:OG	1:A:68:ALA:N	2.51	0.41
1:D:485:THR:HG23	1:D:487:GLY:N	2.36	0.41
1:A:400:HIS:HB3	1:A:401:SER:H	1.69	0.41
1:A:425:GLU:O	1:A:426:ASP:HB2	2.20	0.41
1:A:282:TRP:HH2	1:A:443:LEU:HD22	1.85	0.41
1:C:124:LEU:HG	1:C:125:HIS:H	1.85	0.41
1:D:244:HIS:ND1	1:D:429:ALA:O	2.53	0.41
1:B:128:SER:C	1:B:441:ARG:HE	2.23	0.41
1:B:65:ARG:HD3	1:B:69:GLN:OE1	2.20	0.41
1:D:45:ASP:HB3	1:D:48:ASN:H	1.84	0.41
1:D:2584:LEU:O	1:D:2585:ILE:C	2.59	0.41
1:A:2337:ILE:HG23	1:A:2338:ALA:N	2.35	0.41
1:A:2601:GLN:HA	1:A:2604:GLU:OE2	2.21	0.41
1:B:2598:SER:HA	1:B:2601:GLN:HG2	2.02	0.41
1:B:314:LEU:HA	1:B:366:SER:CB	2.51	0.41
1:D:501:LYS:HB2	1:D:502:PRO:HD3	2.03	0.41
1:C:2274:SER:CB	1:C:2339:SER:HB3	2.44	0.41
1:A:505:GLU:N	1:A:505:GLU:OE1	2.53	0.41
1:A:2465:ASP:OD1	1:A:2562:LEU:HA	2.21	0.41
1:A:572:GLU:C	1:A:574:ILE:H	2.24	0.41
1:C:80:ALA:H	1:C:82:SER:N	2.19	0.41
1:B:80:ALA:HB3	1:B:81:ASN:HB2	2.03	0.41
1:D:77:LYS:H	1:D:78:PRO:HD2	1.85	0.41
1:A:565:GLN:O	1:A:566:ASP:HB2	2.20	0.41
1:C:565:GLN:O	1:C:566:ASP:HB2	2.20	0.41
1:B:21:GLY:N	1:B:24:ASN:OD1	2.54	0.41
1:C:135:ASN:C	1:C:137:ARG:HB3	2.42	0.41
1:D:405:PRO:HD2	1:D:417:LYS:CD	2.51	0.41
1:C:392:HIS:CD2	1:C:395:THR:H	2.38	0.41
1:C:400:HIS:O	1:C:420:THR:OG1	2.36	0.41
1:A:20:GLU:OE1	1:A:46:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2432:LYS:HA	1:A:2435:THR:HG21	2.00	0.41
1:A:2544:ARG:HD2	1:D:2547:GLY:H	1.86	0.41
1:B:2546:GLY:HA2	1:B:2547:GLY:HA3	1.86	0.41
1:B:2531:LEU:HA	1:B:2534:CYS:SG	2.61	0.41
1:C:2327:LEU:O	1:C:2330:PRO:HD2	2.20	0.41
1:C:2281:PHE:CE2	1:C:2372:PHE:HE1	2.39	0.41
1:C:2601:GLN:HA	1:C:2604:GLU:OE2	2.21	0.41
1:A:311:GLY:HA2	1:A:359:PRO:CD	2.48	0.41
1:D:477:LEU:CG	1:D:555:LEU:HD22	2.47	0.41
1:D:2459:GLY:C	1:D:2461:LEU:N	2.74	0.41
1:B:505:GLU:OE1	1:B:505:GLU:N	2.53	0.41
1:A:2555:LYS:N	1:A:2556:PRO:HD3	2.36	0.41
1:C:2555:LYS:N	1:C:2556:PRO:HD3	2.36	0.41
1:C:2362:VAL:O	1:C:2365:LYS:HB3	2.20	0.41
1:B:2724:THR:HG23	1:B:2727:ARG:HE	1.85	0.41
1:B:2367:ILE:O	1:B:2371:SER:OG	2.30	0.41
1:D:565:GLN:O	1:D:566:ASP:HB2	2.21	0.41
1:A:77:LYS:H	1:A:78:PRO:HD2	1.85	0.41
1:A:244:HIS:ND1	1:A:429:ALA:O	2.53	0.41
1:A:431:ALA:HB1	1:A:432:ILE:HD12	2.02	0.41
1:D:135:ASN:HD21	1:D:140:ALA:HA	1.85	0.41
1:D:147:MET:CE	1:D:211:SER:HB3	2.51	0.41
1:A:124:LEU:HG	1:A:125:HIS:H	1.85	0.41
1:A:309:ALA:N	1:A:310:THR:HA	2.35	0.41
1:B:405:PRO:HD2	1:B:417:LYS:CD	2.51	0.41
1:B:404:ILE:HB	1:B:417:LYS:HZ2	1.86	0.41
1:C:10:HIS:HB2	1:C:115:ILE:HB	2.03	0.41
1:C:135:ASN:HB2	1:C:138:LEU:C	2.41	0.41
1:C:137:ARG:HB2	1:C:188:ASN:ND2	2.36	0.41
1:D:266:THR:O	1:D:267:THR:OG1	2.30	0.41
1:C:91:LYS:HA	1:C:94:HIS:HD2	1.86	0.41
1:B:221:VAL:HB	1:B:222:LEU:H	1.56	0.41
1:C:244:HIS:HE1	1:C:428:GLU:O	2.04	0.41
1:A:2543:LEU:HA	1:A:2543:LEU:HD23	1.82	0.41
1:C:2564:ALA:HA	1:C:2568:ILE:HG12	2.03	0.41
1:C:2447:LEU:HD23	1:C:2451:LEU:HD13	2.03	0.41
1:C:2437:ASN:HB2	1:C:2592:THR:HB	2.02	0.41
1:C:2337:ILE:HG23	1:C:2338:ALA:N	2.35	0.41
1:D:2319:ILE:HB	1:D:2323:ILE:HD13	2.01	0.41
1:B:2288:ASN:OD1	1:B:2289:LEU:N	2.54	0.41
1:B:2321:LEU:O	1:B:2325:ILE:HD12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2337:ILE:HG23	1:B:2338:ALA:N	2.35	0.41
1:D:282:TRP:HH2	1:D:443:LEU:HD22	1.85	0.41
1:D:282:TRP:N	1:D:308:LEU:H	2.17	0.41
1:D:2598:SER:HA	1:D:2601:GLN:HG2	2.03	0.41
1:A:314:LEU:HA	1:A:366:SER:CB	2.51	0.41
1:A:2552:VAL:CA	1:A:2553:LEU:HB2	2.38	0.41
1:D:481:VAL:HG23	1:D:555:LEU:HD21	2.02	0.41
1:B:231:ASP:OD1	1:B:232:ASP:N	2.52	0.41
1:C:231:ASP:CG	1:C:232:ASP:H	2.23	0.41
1:C:2724:THR:HG22	1:C:2728:LYS:HE3	2.03	0.41
1:A:2411:PHE:O	1:A:2414:SER:OG	2.26	0.41
1:B:2455:PHE:CE1	1:B:2569:TYR:CZ	3.09	0.41
1:C:505:GLU:OE1	1:C:505:GLU:N	2.53	0.41
1:D:474:THR:HB	1:D:552:ILE:HD11	2.02	0.41
1:D:239:VAL:HB	1:D:283:GLU:CA	2.50	0.41
1:C:576:LYS:HB3	1:C:580:PHE:CZ	2.55	0.41
1:C:2465:ASP:OD1	1:C:2562:LEU:HA	2.21	0.41
1:A:239:VAL:HB	1:A:283:GLU:CA	2.51	0.41
1:B:13:ASP:OD1	1:B:225:LYS:HD3	2.20	0.41
1:B:71:GLN:HA	1:B:74:LYS:HG2	2.03	0.41
1:A:71:GLN:HA	1:A:74:LYS:NZ	2.33	0.41
1:D:2705:THR:O	1:D:2709:VAL:HG23	2.21	0.41
1:D:79:GLY:HA3	1:D:82:SER:O	2.21	0.41
1:B:80:ALA:H	1:B:82:SER:N	2.19	0.41
1:D:2313:LEU:HD12	1:D:2316:ALA:HB3	2.03	0.41
1:A:10:HIS:HE2	1:A:177:VAL:HA	1.85	0.41
1:A:137:ARG:HG2	1:A:138:LEU:N	2.36	0.41
1:C:2731:GLN:HB3	1:D:393:LEU:HD23	2.02	0.41
1:C:282:TRP:HH2	1:C:443:LEU:HD22	1.85	0.41
1:C:60:LEU:HD23	1:C:123:LEU:HD13	2.02	0.41
1:D:400:HIS:HB3	1:D:401:SER:H	1.69	0.41
1:A:48:ASN:HA	1:A:49:PRO:HD2	1.88	0.41
1:D:2575:PHE:O	1:D:2579:ILE:HG12	2.21	0.41
1:D:2581:VAL:HG13	1:D:2582:LEU:HD12	2.03	0.41
1:C:2444:THR:O	1:C:2447:LEU:HB3	2.21	0.41
1:D:2444:THR:O	1:D:2447:LEU:HB3	2.20	0.41
1:A:2288:ASN:OD1	1:A:2289:LEU:N	2.54	0.41
1:C:314:LEU:HA	1:C:366:SER:CB	2.51	0.41
1:C:2273:MET:O	1:C:2276:TRP:HB2	2.20	0.41
1:B:565:GLN:O	1:B:566:ASP:HB2	2.21	0.41
1:B:2461:LEU:HD12	1:C:2411:PHE:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2459:GLY:C	1:A:2461:LEU:N	2.74	0.41
1:A:557:TYR:HA	1:A:560:LEU:HG	2.03	0.41
1:B:576:LYS:HB3	1:B:580:PHE:CZ	2.55	0.41
1:A:512:GLU:HB3	1:A:513:GLN:OE1	2.21	0.41
1:B:2574:PHE:HA	1:B:2574:PHE:HD1	1.78	0.41
1:A:80:ALA:H	1:A:82:SER:HB2	1.85	0.41
1:A:117:TYR:CD2	1:A:176:VAL:HG22	2.56	0.40
1:A:135:ASN:HB2	1:A:138:LEU:C	2.41	0.40
1:B:266:THR:HA	1:B:415:MET:SD	2.61	0.40
1:B:147:MET:CE	1:B:211:SER:HB3	2.51	0.40
1:B:192:PRO:CG	1:B:213:ASN:HA	2.51	0.40
1:B:64:ASN:ND2	1:B:103:ASN:HD21	2.19	0.40
1:A:286:VAL:N	1:A:303:PHE:CZ	2.86	0.40
1:A:2447:LEU:HD23	1:A:2451:LEU:HD13	2.03	0.40
1:A:2567:VAL:HG13	1:A:2568:ILE:N	2.36	0.40
1:B:2584:LEU:O	1:B:2585:ILE:C	2.59	0.40
1:C:2288:ASN:OD1	1:C:2289:LEU:N	2.54	0.40
1:A:2531:LEU:HA	1:A:2534:CYS:SG	2.61	0.40
1:B:2324:VAL:C	1:B:2326:ALA:N	2.74	0.40
1:B:2325:ILE:HG22	1:B:2329:LYS:HZ2	1.75	0.40
1:D:480:LEU:HA	1:D:483:PHE:HB3	2.03	0.40
1:A:2455:PHE:CE1	1:A:2569:TYR:CZ	3.09	0.40
1:B:501:LYS:HB2	1:B:502:PRO:HD3	2.03	0.40
1:C:2459:GLY:C	1:C:2461:LEU:N	2.74	0.40
1:C:2715:GLN:HE21	1:D:2710:THR:HB	1.86	0.40
1:B:287:VAL:HB	1:B:289:HIS:HA	2.02	0.40
1:C:446:ALA:O	1:C:449:ALA:N	2.53	0.40
1:D:80:ALA:H	1:D:82:SER:N	2.19	0.40
1:B:79:GLY:HA3	1:B:82:SER:O	2.21	0.40
1:D:556:CYS:O	1:D:559:VAL:HG22	2.20	0.40
1:D:192:PRO:CG	1:D:213:ASN:HA	2.51	0.40
1:C:52:LYS:O	1:C:55:ASP:N	2.47	0.40
1:C:304:ARG:NH2	1:C:362:ASN:O	2.55	0.40
1:C:20:GLU:OE1	1:C:46:LEU:HG	2.21	0.40
1:A:21:GLY:N	1:A:24:ASN:OD1	2.54	0.40
1:B:2581:VAL:HG13	1:B:2582:LEU:HD12	2.03	0.40
1:B:2579:ILE:O	1:B:2583:ASN:ND2	2.53	0.40
1:D:2579:ILE:O	1:D:2583:ASN:ND2	2.53	0.40
1:C:2324:VAL:C	1:C:2326:ALA:N	2.74	0.40
1:D:2322:ALA:HA	1:D:2325:ILE:HD12	2.03	0.40
1:D:2531:LEU:HA	1:D:2534:CYS:SG	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:312:HIS:NE2	1:B:360:GLU:O	2.55	0.40
1:D:314:LEU:HA	1:D:366:SER:CB	2.51	0.40
1:B:2273:MET:O	1:B:2276:TRP:HB2	2.21	0.40
1:B:480:LEU:HA	1:B:483:PHE:HB3	2.03	0.40
1:A:186:PRO:CD	1:A:190:GLY:HA3	2.51	0.40
1:D:538:LEU:HD12	1:D:539:GLU:N	2.36	0.40
1:C:512:GLU:HB3	1:C:513:GLN:OE1	2.21	0.40
1:B:2705:THR:O	1:B:2709:VAL:HG23	2.21	0.40
1:C:79:GLY:HA3	1:C:82:SER:O	2.21	0.40
1:D:80:ALA:HB3	1:D:81:ASN:HB2	2.03	0.40
1:A:80:ALA:HB3	1:A:81:ASN:HB2	2.03	0.40
1:D:2717:SER:HA	1:D:2720:LYS:HG2	2.02	0.40
1:A:131:TYR:CG	1:A:132:LEU:N	2.90	0.40
1:B:103:ASN:HA	1:B:106:GLU:CD	2.42	0.40
1:B:180:ASP:N	1:B:180:ASP:OD1	2.53	0.40
1:C:21:GLY:N	1:C:24:ASN:OD1	2.54	0.40
1:D:2564:ALA:HA	1:D:2568:ILE:HG12	2.02	0.40
1:D:2567:VAL:HG13	1:D:2568:ILE:N	2.36	0.40
1:C:2531:LEU:HA	1:C:2534:CYS:SG	2.62	0.40
1:A:2531:LEU:O	1:A:2535:ILE:HG23	2.21	0.40
1:A:2281:PHE:CE2	1:A:2372:PHE:HE1	2.39	0.40
1:D:440:VAL:O	1:D:443:LEU:HB2	2.21	0.40
1:C:2552:VAL:HG12	1:C:2554:ARG:HG3	2.02	0.40
1:D:557:TYR:HA	1:D:560:LEU:HG	2.04	0.40
1:D:567:TYR:CD1	1:D:569:LYS:HB2	2.57	0.40
1:C:2683:LEU:O	1:C:2686:SER:OG	2.26	0.40
1:C:2703:GLU:O	1:C:2706:MET:HG2	2.20	0.40
1:C:574:ILE:CA	1:C:577:GLN:HB2	2.49	0.40
1:D:2555:LYS:N	1:D:2556:PRO:HD3	2.37	0.40
1:A:79:GLY:HA3	1:A:82:SER:O	2.21	0.40
1:C:2518:GLU:O	1:C:2521:GLU:HB2	2.21	0.40
1:D:64:ASN:ND2	1:D:103:ASN:HD21	2.19	0.40
1:A:135:ASN:HD22	1:A:139:PRO:C	2.24	0.40
1:A:135:ASN:HD21	1:A:140:ALA:HA	1.86	0.40
1:C:137:ARG:HG2	1:C:138:LEU:N	2.36	0.40
1:C:174:ASP:N	1:C:174:ASP:OD1	2.51	0.40
1:D:391:ARG:HB2	1:D:398:TRP:CE3	2.56	0.40
1:D:400:HIS:H	1:D:422:PRO:HG3	1.87	0.40
1:B:135:ASN:HB2	1:B:138:LEU:C	2.42	0.40
1:A:2444:THR:O	1:A:2447:LEU:HB3	2.21	0.40
1:B:2432:LYS:NZ	1:B:2436:ARG:HD3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2567:VAL:HG13	1:C:2568:ILE:N	2.36	0.40
1:B:2531:LEU:O	1:B:2535:ILE:HG23	2.21	0.40
1:C:2531:LEU:O	1:C:2535:ILE:HG23	2.21	0.40
1:B:2322:ALA:HA	1:B:2325:ILE:HD12	2.03	0.40
1:A:2327:LEU:C	1:A:2330:PRO:HD2	2.42	0.40
1:B:253:CYS:CA	1:B:262:VAL:HA	2.46	0.40
1:B:309:ALA:N	1:B:310:THR:HA	2.36	0.40
1:B:557:TYR:HA	1:B:560:LEU:HG	2.04	0.40
1:C:2455:PHE:CE1	1:C:2569:TYR:CZ	3.09	0.40
1:C:2461:LEU:HD12	1:D:2411:PHE:HE2	1.86	0.40
1:A:474:THR:HB	1:A:552:ILE:HD11	2.04	0.40
1:B:287:VAL:HB	1:B:289:HIS:CA	2.52	0.40
1:C:186:PRO:CD	1:C:190:GLY:HA3	2.51	0.40
1:D:517:LYS:O	1:D:520:PHE:HB3	2.21	0.40
1:A:2361:ASN:OD1	1:A:2362:VAL:N	2.55	0.40
1:D:2724:THR:HG23	1:D:2727:ARG:NH2	2.37	0.40
1:B:2518:GLU:O	1:B:2521:GLU:HB2	2.22	0.40
1:C:77:LYS:H	1:C:78:PRO:HD2	1.85	0.40
1:D:2518:GLU:O	1:D:2521:GLU:HB2	2.22	0.40
1:B:22:SER:HA	1:B:23:THR:HA	1.92	0.40
1:D:278:SER:OG	1:D:512:GLU:HG3	2.22	0.40
1:B:2313:LEU:HD12	1:B:2316:ALA:HB3	2.02	0.40
1:B:400:HIS:H	1:B:420:THR:HG21	1.87	0.40
1:B:10:HIS:HB2	1:B:115:ILE:HB	2.04	0.40
1:B:131:TYR:CG	1:B:132:LEU:N	2.90	0.40
1:B:168:LYS:HD3	1:C:246:GLU:C	2.42	0.40
1:B:2437:ASN:HB2	1:B:2592:THR:HB	2.04	0.40
1:B:2567:VAL:HG13	1:B:2568:ILE:N	2.36	0.40
1:C:2584:LEU:O	1:C:2587:GLY:N	2.55	0.40
1:D:2543:LEU:HA	1:D:2543:LEU:HD23	1.81	0.40
1:B:2532:LEU:HA	1:B:2535:ILE:HG12	2.04	0.40
1:A:2532:LEU:HA	1:A:2535:ILE:HG12	2.04	0.40
1:A:2324:VAL:C	1:A:2326:ALA:N	2.74	0.40
1:B:282:TRP:N	1:B:308:LEU:H	2.17	0.40
1:B:282:TRP:HH2	1:B:443:LEU:HD22	1.86	0.40
1:D:505:GLU:OE1	1:D:505:GLU:N	2.53	0.40
1:B:2552:VAL:HG12	1:B:2554:ARG:HG3	2.02	0.40
1:A:231:ASP:OD1	1:A:232:ASP:N	2.52	0.40
1:A:2274:SER:CB	1:A:2339:SER:HB3	2.44	0.40
1:C:243:PHE:CZ	1:C:432:ILE:HA	2.57	0.40
1:C:480:LEU:HA	1:C:483:PHE:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:484:VAL:HG22	1:A:562:HIS:ND1	2.37	0.40
1:B:411:GLU:CD	1:B:412:LYS:HG3	2.42	0.40
1:D:488:THR:O	1:D:489:ASN:ND2	2.55	0.40
1:C:2701:LYS:HE3	1:D:2700:GLU:CD	2.42	0.40
1:B:485:THR:HG23	1:B:487:GLY:N	2.36	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	856/2750 (31%)	645 (75%)	137 (16%)	74 (9%)	1	17
1	B	856/2750 (31%)	647 (76%)	135 (16%)	74 (9%)	1	17
1	C	856/2750 (31%)	646 (76%)	137 (16%)	73 (8%)	1	17
1	D	856/2750 (31%)	649 (76%)	133 (16%)	74 (9%)	1	17
All	All	3424/11000 (31%)	2587 (76%)	542 (16%)	295 (9%)	2	17

All (295) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	16	SER
1	A	20	GLU
1	A	144	LYS
1	A	165	PRO
1	A	166	PHE
1	A	183	VAL
1	A	204	PRO
1	A	245	ALA
1	A	284	VAL
1	A	313	TYR

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Mol	Chain	Res	Type
1	A	317	GLU
1	A	385	ASN
1	A	399	VAL
1	A	426	ASP
1	A	431	ALA
1	A	506	ARG
1	A	534	PRO
1	A	547	ALA
1	A	2297	PHE
1	A	2440	PRO
1	A	2460	TYR
1	A	2465	ASP
1	A	2565	ALA
1	A	2584	LEU
1	B	16	SER
1	B	20	GLU
1	B	144	LYS
1	B	165	PRO
1	B	166	PHE
1	B	183	VAL
1	B	204	PRO
1	B	245	ALA
1	B	284	VAL
1	B	313	TYR
1	B	317	GLU
1	B	385	ASN
1	B	399	VAL
1	B	426	ASP
1	B	431	ALA
1	B	506	ARG
1	B	534	PRO
1	B	547	ALA
1	B	2297	PHE
1	B	2440	PRO
1	B	2460	TYR
1	B	2465	ASP
1	B	2565	ALA
1	B	2584	LEU
1	C	16	SER
1	C	20	GLU
1	C	144	LYS
1	C	165	PRO

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Mol	Chain	Res	Type
1	C	166	PHE
1	C	183	VAL
1	C	204	PRO
1	C	245	ALA
1	C	284	VAL
1	C	313	TYR
1	C	317	GLU
1	C	385	ASN
1	C	399	VAL
1	C	426	ASP
1	C	431	ALA
1	C	506	ARG
1	C	534	PRO
1	C	547	ALA
1	C	2297	PHE
1	C	2440	PRO
1	C	2460	TYR
1	C	2465	ASP
1	C	2565	ALA
1	C	2584	LEU
1	D	16	SER
1	D	20	GLU
1	D	144	LYS
1	D	165	PRO
1	D	166	PHE
1	D	183	VAL
1	D	204	PRO
1	D	245	ALA
1	D	284	VAL
1	D	313	TYR
1	D	317	GLU
1	D	385	ASN
1	D	399	VAL
1	D	426	ASP
1	D	431	ALA
1	D	506	ARG
1	D	534	PRO
1	D	547	ALA
1	D	2297	PHE
1	D	2440	PRO
1	D	2460	TYR
1	D	2465	ASP

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Mol	Chain	Res	Type
1	D	2565	ALA
1	D	2584	LEU
1	A	38	VAL
1	A	136	LYS
1	A	160	TRP
1	A	168	LYS
1	A	221	VAL
1	A	232	ASP
1	A	233	ILE
1	A	309	ALA
1	A	312	HIS
1	A	363	ASP
1	A	398	TRP
1	A	409	GLU
1	A	484	VAL
1	A	566	ASP
1	B	38	VAL
1	B	136	LYS
1	B	160	TRP
1	B	168	LYS
1	B	221	VAL
1	B	232	ASP
1	B	233	ILE
1	B	309	ALA
1	B	312	HIS
1	B	363	ASP
1	B	398	TRP
1	B	409	GLU
1	B	484	VAL
1	B	566	ASP
1	B	2553	LEU
1	C	38	VAL
1	C	136	LYS
1	C	160	TRP
1	C	168	LYS
1	C	221	VAL
1	C	232	ASP
1	C	233	ILE
1	C	309	ALA
1	C	312	HIS
1	C	363	ASP
1	C	398	TRP

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Mol	Chain	Res	Type
1	C	484	VAL
1	C	566	ASP
1	D	38	VAL
1	D	136	LYS
1	D	160	TRP
1	D	168	LYS
1	D	221	VAL
1	D	232	ASP
1	D	233	ILE
1	D	309	ALA
1	D	312	HIS
1	D	363	ASP
1	D	398	TRP
1	D	409	GLU
1	D	484	VAL
1	D	566	ASP
1	D	2553	LEU
1	A	67	SER
1	A	388	VAL
1	A	403	ASN
1	A	418	ILE
1	A	493	ASP
1	A	527	PHE
1	A	2327	LEU
1	A	2553	LEU
1	B	67	SER
1	B	388	VAL
1	B	403	ASN
1	B	493	ASP
1	B	527	PHE
1	B	2327	LEU
1	C	67	SER
1	C	388	VAL
1	C	403	ASN
1	C	405	PRO
1	C	409	GLU
1	C	493	ASP
1	C	527	PHE
1	C	2327	LEU
1	C	2553	LEU
1	D	388	VAL
1	D	403	ASN

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Mol	Chain	Res	Type
1	D	493	ASP
1	D	527	PHE
1	D	2327	LEU
1	A	7	SER
1	A	21	GLY
1	A	65	ARG
1	A	77	LYS
1	A	354	SER
1	A	405	PRO
1	A	504	ARG
1	A	2330	PRO
1	A	2338	ALA
1	A	2540	SER
1	B	7	SER
1	B	21	GLY
1	B	65	ARG
1	B	77	LYS
1	B	354	SER
1	B	405	PRO
1	B	418	ILE
1	B	504	ARG
1	B	2330	PRO
1	B	2338	ALA
1	B	2350	LEU
1	C	7	SER
1	C	21	GLY
1	C	65	ARG
1	C	77	LYS
1	C	354	SER
1	C	418	ILE
1	C	504	ARG
1	C	2330	PRO
1	C	2338	ALA
1	C	2561	PRO
1	D	7	SER
1	D	21	GLY
1	D	65	ARG
1	D	67	SER
1	D	77	LYS
1	D	354	SER
1	D	405	PRO
1	D	418	ILE

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Mol	Chain	Res	Type
1	D	504	ARG
1	D	2330	PRO
1	D	2338	ALA
1	D	2350	LEU
1	D	2561	PRO
1	A	11	ILE
1	A	177	VAL
1	A	422	PRO
1	A	513	GLN
1	A	2561	PRO
1	B	11	ILE
1	B	422	PRO
1	B	513	GLN
1	B	2540	SER
1	B	2561	PRO
1	C	11	ILE
1	C	177	VAL
1	C	422	PRO
1	C	513	GLN
1	C	2540	SER
1	D	11	ILE
1	D	422	PRO
1	D	513	GLN
1	D	2540	SER
1	A	122	GLN
1	A	272	ALA
1	A	283	GLU
1	A	382	VAL
1	B	122	GLN
1	B	177	VAL
1	B	283	GLU
1	B	382	VAL
1	C	122	GLN
1	C	272	ALA
1	C	382	VAL
1	D	122	GLN
1	D	177	VAL
1	D	283	GLU
1	D	382	VAL
1	D	2439	ARG
1	A	491	GLY
1	A	2439	ARG

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Mol	Chain	Res	Type
1	A	2459	GLY
1	B	491	GLY
1	C	491	GLY
1	C	2439	ARG
1	C	2459	GLY
1	D	491	GLY
1	A	2349	GLY
1	A	2556	PRO
1	B	2439	ARG
1	B	2459	GLY
1	C	2349	GLY
1	D	2459	GLY
1	A	220	ILE
1	A	361	GLY
1	A	533	GLY
1	B	220	ILE
1	B	361	GLY
1	B	533	GLY
1	B	2349	GLY
1	C	220	ILE
1	C	361	GLY
1	C	533	GLY
1	C	2556	PRO
1	D	220	ILE
1	D	361	GLY
1	D	533	GLY
1	D	2349	GLY
1	B	2556	PRO
1	D	2556	PRO
1	A	192	PRO
1	C	192	PRO
1	B	192	PRO
1	D	192	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	769/2459 (31%)	764 (99%)	5 (1%)	88	94
1	B	769/2459 (31%)	764 (99%)	5 (1%)	88	94
1	C	769/2459 (31%)	764 (99%)	5 (1%)	88	94
1	D	769/2459 (31%)	764 (99%)	5 (1%)	88	94
All	All	3076/9836 (31%)	3056 (99%)	20 (1%)	89	94

All (20) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	2415	LEU
1	A	2431	ILE
1	A	2435	THR
1	A	2514	LEU
1	A	2571	LEU
1	B	2415	LEU
1	B	2431	ILE
1	B	2435	THR
1	B	2514	LEU
1	B	2571	LEU
1	C	2415	LEU
1	C	2431	ILE
1	C	2435	THR
1	C	2514	LEU
1	C	2571	LEU
1	D	2415	LEU
1	D	2431	ILE
1	D	2435	THR
1	D	2514	LEU
1	D	2571	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (46) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	64	ASN
1	A	94	HIS
1	A	103	ASN
1	A	188	ASN
1	A	213	ASN
1	A	244	HIS
1	A	270	GLN

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Mol	Chain	Res	Type
1	A	289	HIS
1	A	385	ASN
1	A	489	ASN
1	A	518	GLN
1	A	2715	GLN
1	A	2731	GLN
1	B	64	ASN
1	B	94	HIS
1	B	103	ASN
1	B	188	ASN
1	B	213	ASN
1	B	289	HIS
1	B	385	ASN
1	B	489	ASN
1	B	518	GLN
1	B	2715	GLN
1	B	2731	GLN
1	C	64	ASN
1	C	94	HIS
1	C	103	ASN
1	C	188	ASN
1	C	213	ASN
1	C	244	HIS
1	C	270	GLN
1	C	289	HIS
1	C	385	ASN
1	C	489	ASN
1	C	518	GLN
1	C	2715	GLN
1	C	2731	GLN
1	D	94	HIS
1	D	188	ASN
1	D	213	ASN
1	D	289	HIS
1	D	385	ASN
1	D	489	ASN
1	D	518	GLN
1	D	2715	GLN
1	D	2731	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

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.