Full wwPDB EM Validation Report ⓘ

Nov 4, 2024 – 01:57 am GMT

PDB ID	:	8RRV
EMDB ID	:	EMD-19466
Title	:	Structure of RyR1 in detergent in close state in complex with FKBP and Nb9657.
Authors	:	Li, C.; Efremov, R.G.
Deposited on	:	2024-01-23
Resolution	:	3.20 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

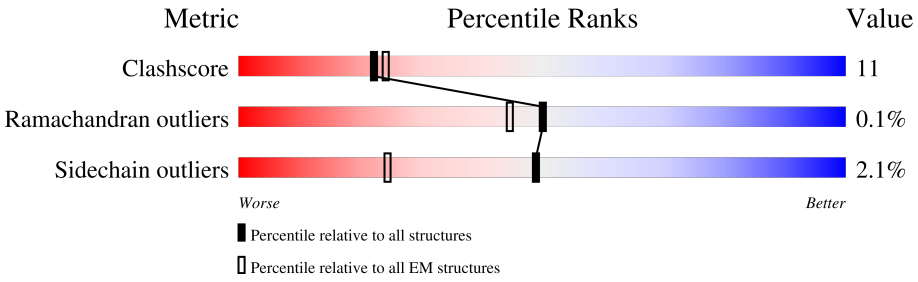
EMDB validation analysis	:	0.0.1.dev113
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.20 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B	5037	63% 21% • 15%
1	E	5037	63% 22% • 15%
1	G	5037	63% 21% • 15%
1	J	5037	63% 22% • 15%
2	A	107	76% 24%
2	D	107	76% 24%
2	H	107	74% 26%
2	I	107	74% 26%

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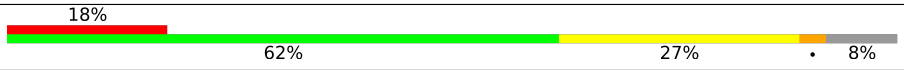
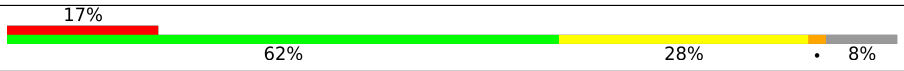
Mol	Chain	Length	Quality of chain
3	C	137	
3	F	137	
3	K	137	
3	M	137	

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 142968 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 Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	B	4290	Total	C	N	O	S	1	0
			33956	21639	5852	6236	229		
1	E	4290	Total	C	N	O	S	1	0
			33956	21639	5852	6236	229		
1	G	4290	Total	C	N	O	S	1	0
			33956	21639	5852	6236	229		
1	J	4290	Total	C	N	O	S	1	0
			33956	21639	5852	6236	229		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	3221	SER	THR	conflict	UNP P11716
E	3221	SER	THR	conflict	UNP P11716
G	3221	SER	THR	conflict	UNP P11716
J	3221	SER	THR	conflict	UNP P11716

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	D	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	H	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	I	107	Total	C	N	O	S	0	0
			818	516	144	154	4		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	100	ASP	GLY	conflict	UNP Q8HYX6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	100	ASP	GLY	conflict	UNP Q8HYX6
H	100	ASP	GLY	conflict	UNP Q8HYX6
I	100	ASP	GLY	conflict	UNP Q8HYX6

- Molecule 3 is a protein called nanobody9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	F	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	K	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	M	126	Total	C	N	O	S	0	0
			967	597	170	195	5		

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

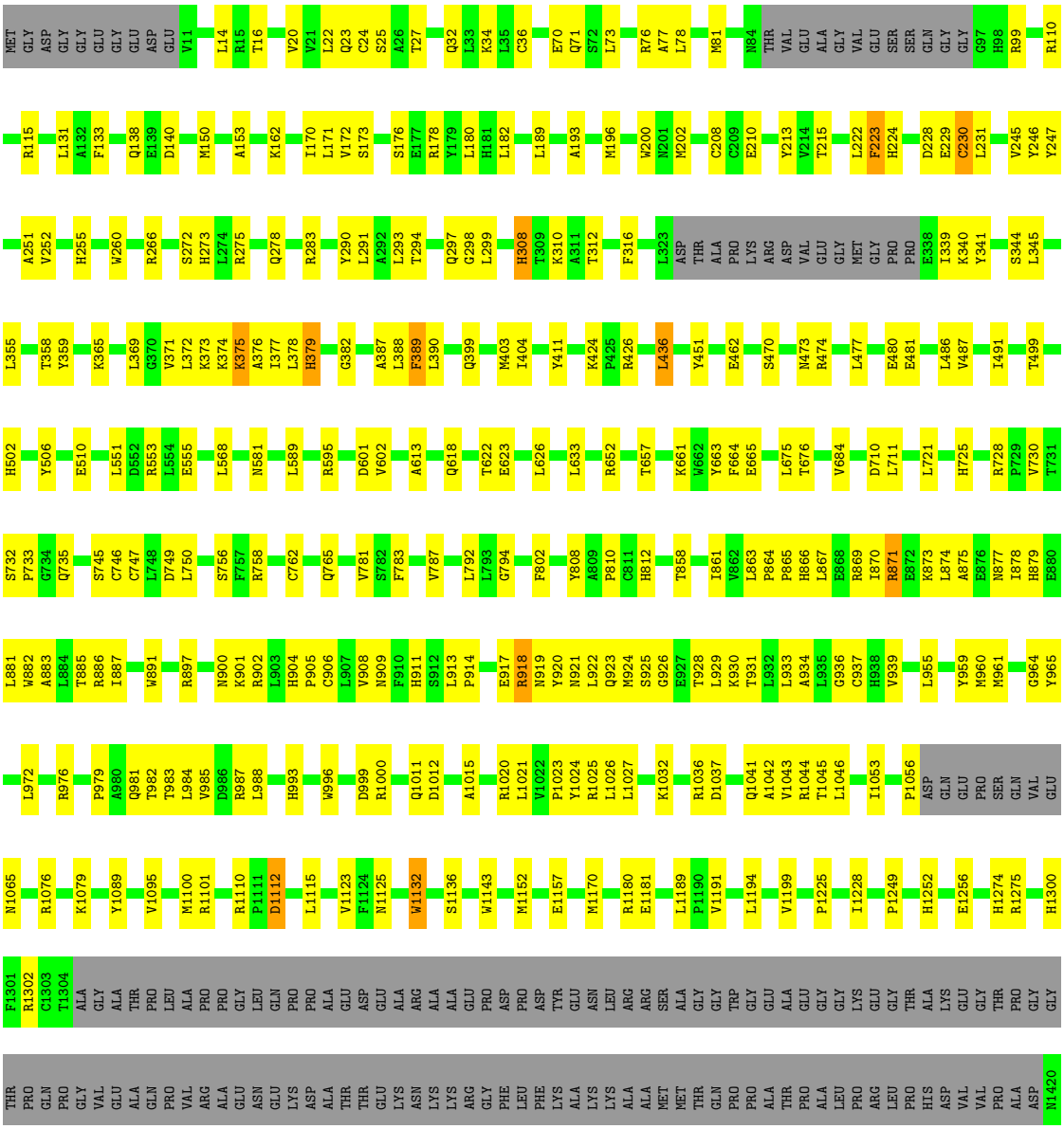
Mol	Chain	Residues	Atoms		AltConf
4	B	1	Total	Zn	0
			1	1	
4	E	1	Total	Zn	0
			1	1	
4	G	1	Total	Zn	0
			1	1	
4	J	1	Total	Zn	0
			1	1	

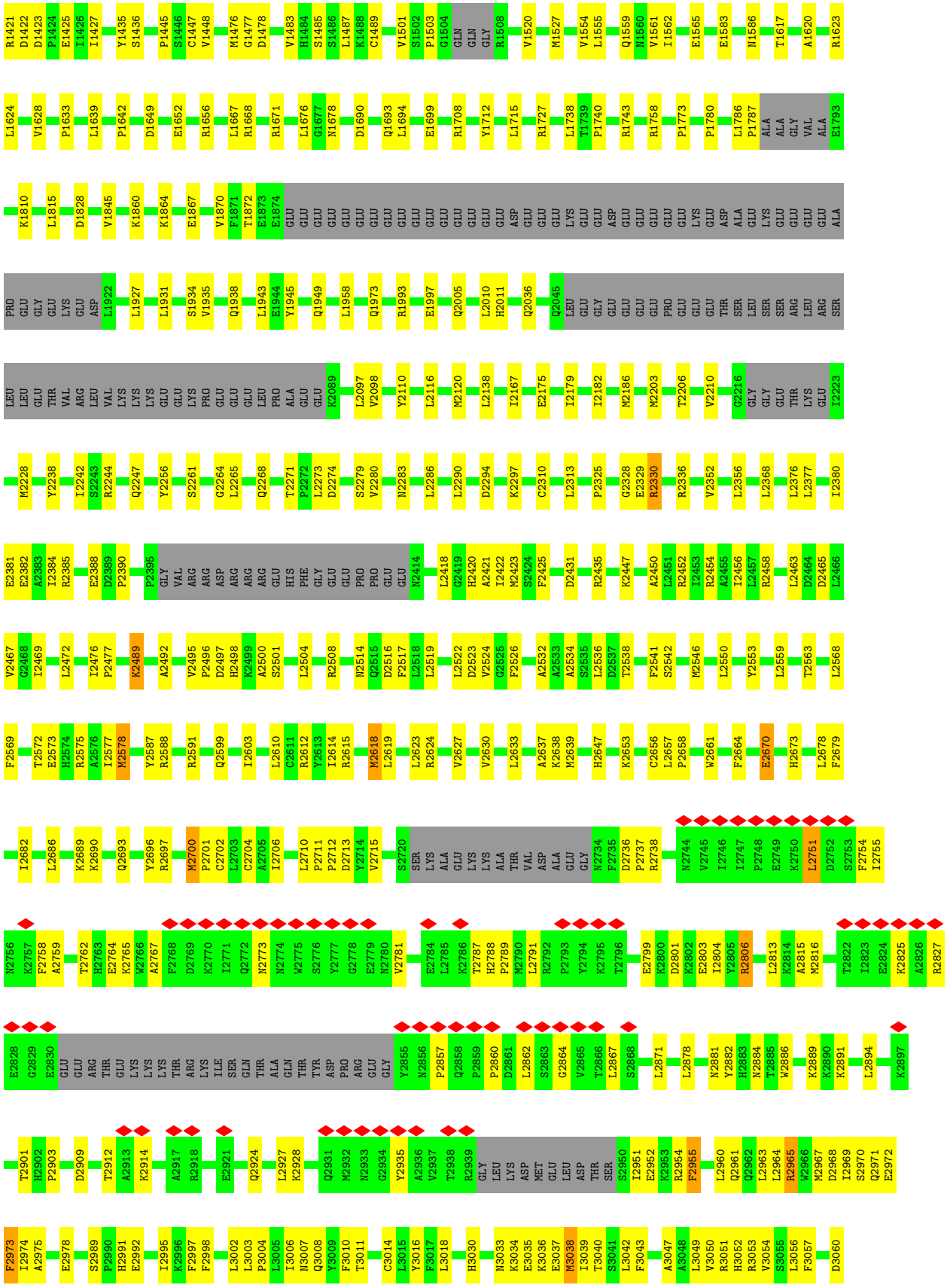
3 Residue-property plots (i)

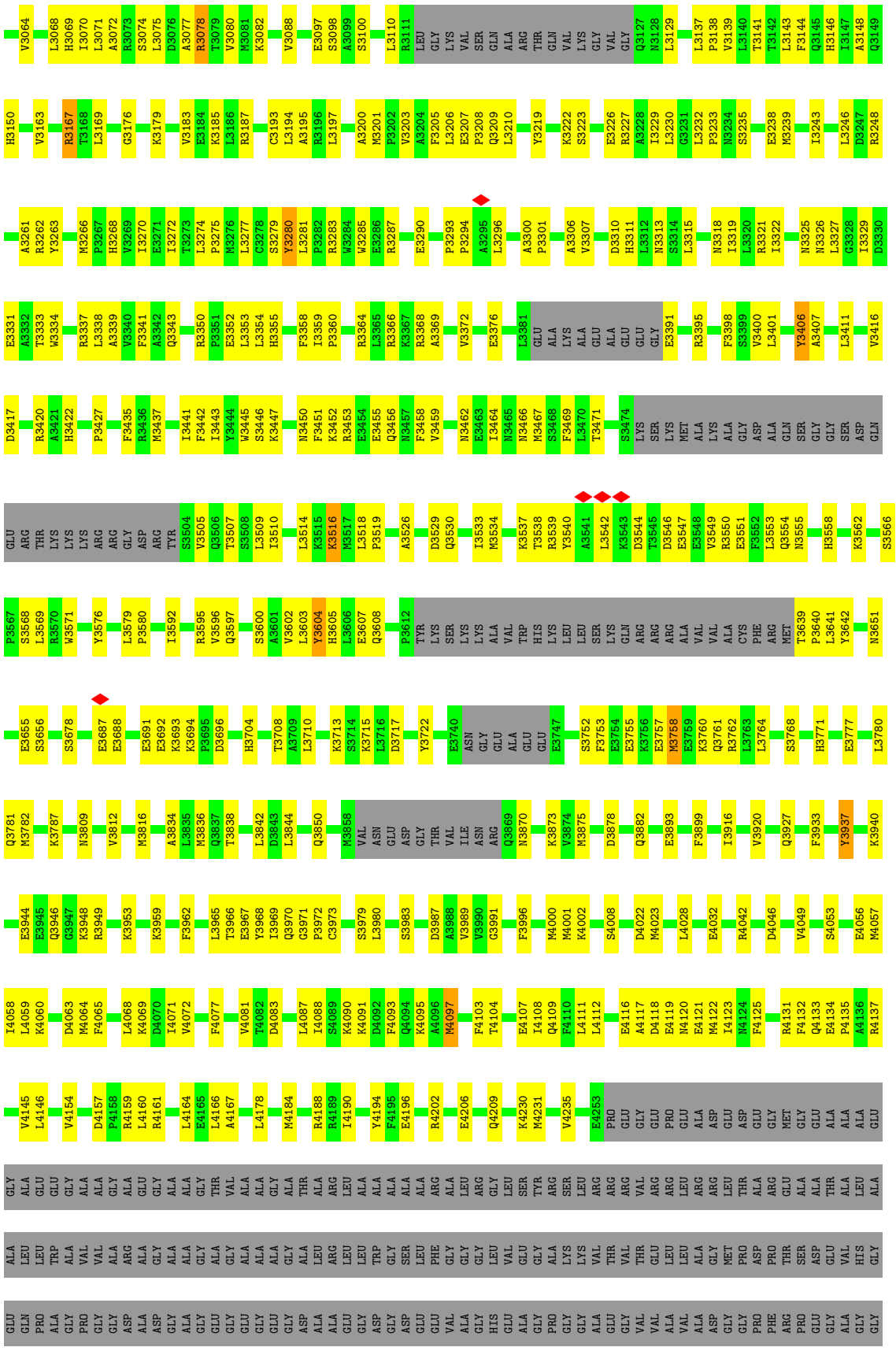
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

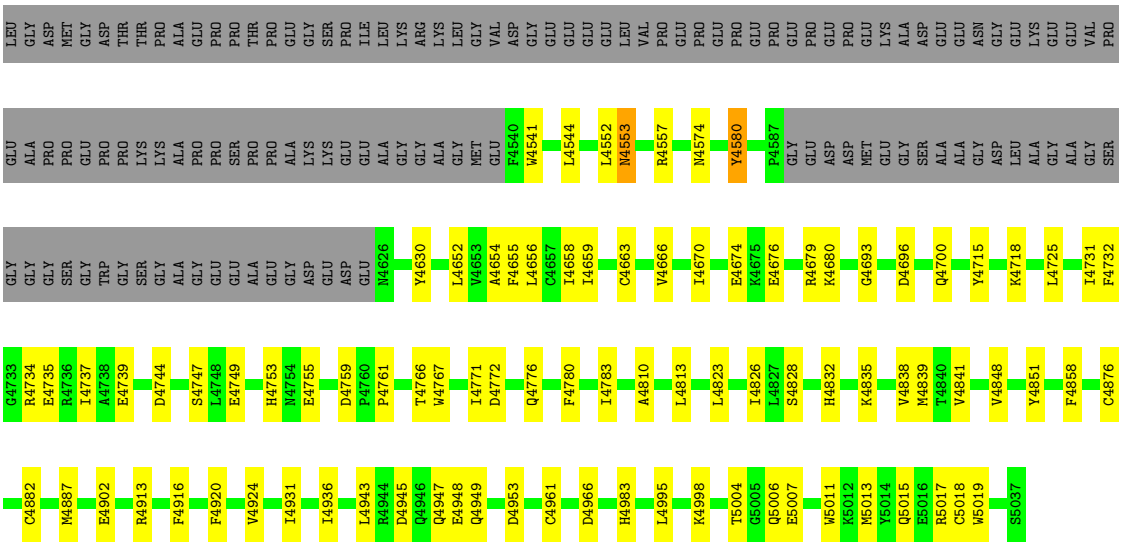
- Molecule 1: Ryanodine receptor 1

Chain B:



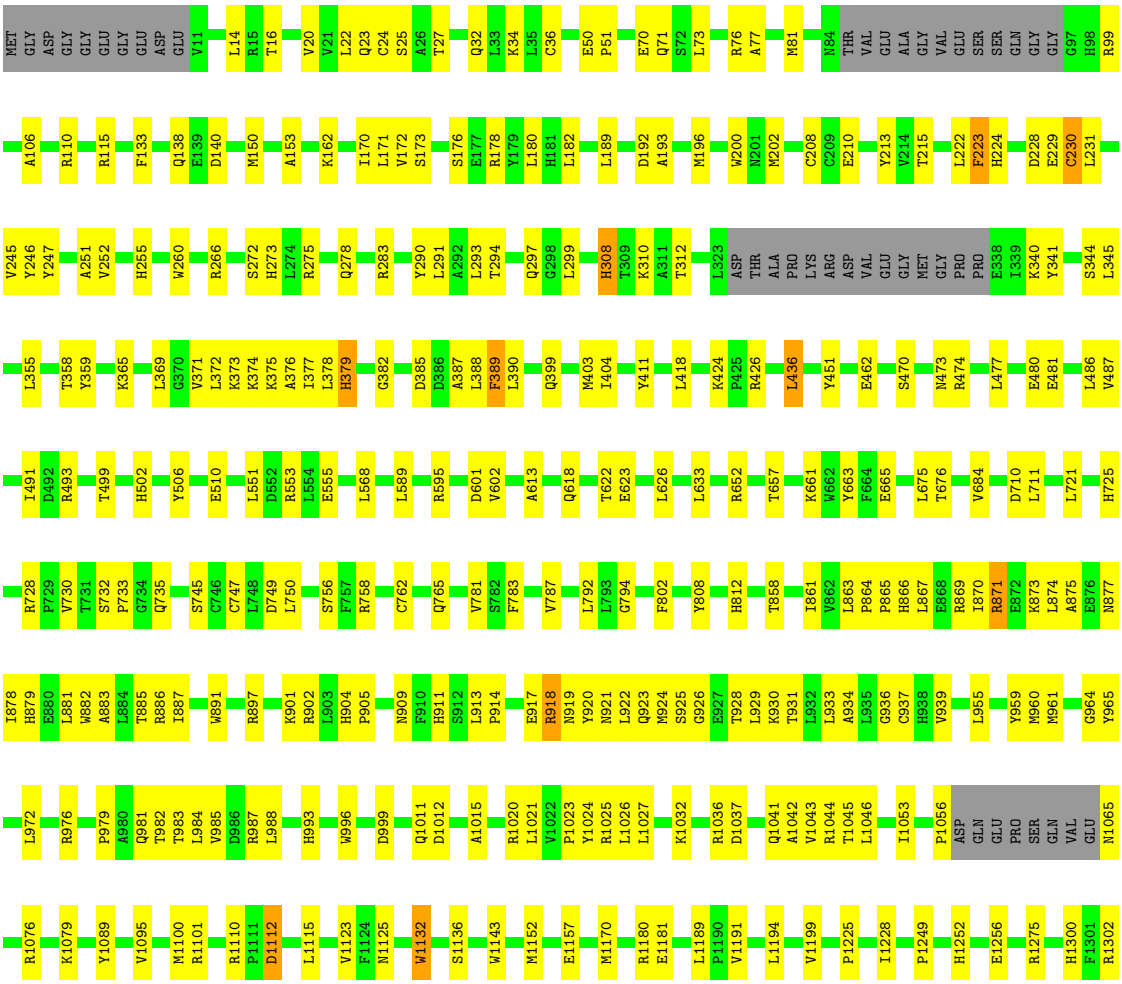

R1421 D1422 D1423 P1424 E1425 T1426 I1427 Y1435 S1436 P1445 S1446 C1447 V1448 M1476 G1477 D1478 V1483 H1484 S1485 S1486 L1487 K1488 C1489 V1501 S1502 P1503 G1504 GLN GLN GLY R1508 V1520 M1527 V1554 L1555 Q1559 N1560 V1561 I1562 E1565 E1583 N1586 T1617 A1620 R1623
L1624 V1628 P1633 L1639 P1642 D1649 E1652 R1656 L1667 R1668 R1671 L1676 G1677 N1678 D1690 Q1693 L1694 E1699 R1708 Y1712 L1715 R1727 L1738 T1739 P1740 R1743 R1758 P1773 P1780 L1786 P1787 ALA ALA GLY VAL ALA E1793
K1810 L1815 D1828 V1845 K1860 K1864 E1867 V1870 F1871 T1872 E1873 E1874 GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU ASP GLU GLU GLU GLU LYS GLU GLU ASP GLU GLU GLU GLU LYS GLU ASP ALA GLU LYS GLU GLU GLU ALA
PRO GLU GLY GLU LYS GLU ASP L1922 L1927 L1931 S1934 V1935 Q1938 L1943 E1944 Y1945 Q1949 L1958 Q1973 R1993 E1997 Q2005 L2010 H2011 Q2036 Q2045 LEU GLU GLY GLU GLU GLU GLU PRO GLU GLU GLU THR SER LEU SER SER ARG LEU ARG SER
LEU LEU GLU THR VAL ARG LEU VAL LYS LYS LYS GLU GLU LYS PRO GLU GLU GLU LEU PRO ALA GLU GLU K2089 L2097 V2098 Y2110 L2116 M2120 L2138 I2167 E2175 I2179 I2182 M2186 M2203 T2206 V2210 G2216 GLY GLY GLU THR LYS GLU I2223
M2228 Y2238 I2242 S2243 R2244 Q2247 Y2256 S2261 G2264 L2265 Q2268 T2271 P2272 L2273 D2274 S2279 V2280 N2283 L2286 L2290 D2294 K2297 C2310 L2313 P2325 G2328 E2329 R2330 R2336 V2352 L2356 L2368 L2376 L2377 I2380
E2381 E2382 A2383 I2384 R2385 E2388 D2389 P2390 P2395 GLY VAL ARG ARG ASP ARG ARG ARG GLU HIS PHE GLY GLU GLU PRO PRO GLU GLU N2414 L2418 G2419 H2420 A2421 I2422 M2423 S2424 F2425 D2431 R2435 K2447 A2450 L2451 R2452 I2453 R2454 A2455 I2456 L2457 R2458 L2463 D2464 D2465 L2466
V2467 G2468 I2469 L2472 I2476 P2477 K2489 A2492 V2495 P2496 D2497 H2498 K2499 A2500 S2501 L2504 R2508 N2514 G2515 D2516 F2517 I2518 L2519 L2522 D2523 V2524 G2525 F2526 A2532 A2533 A2534 S2535 L2536 D2537 T2538 F2541 S2542 M2546 L2550 Y2553 L2559 T2563 L2568
F2569 T2572 E2573 H2574 R2575 A2576 I2577 M2578 Y2587 R2588 R2591 Q2599 I2603 L2610 C2611 R2612 Y2613 I2614 R2615 M2618 L2619 L2623 R2624 V2627 V2630 L2633 A2637 K2638 M2639 H2647 K2653 C2656 L2657 P2658 W2661 F2664 E2670 H2673 L2678 F2679
I2682 L2686 K2689 K2690 Q2693 Y2696 R2697 M2700 P2701 C2702 L2703 C2704 A2705 I2706 L2710 P2711 P2712 D2713 Y2714 V2715 S2720 SER LYS ALA GLU LYS LYS ALA THR VAL ASP ALA GLU GLY N2734 F2735 D2736 P2737 R2738 N2744 V2745 I2746 I2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 I2755
N2756 K2757 F2758 A2759 T2762 H2763 E2764 K2765 W2766 A2767 F2768 D2769 K2770 I2771 Q2772 N2773 W2774 W2775 S2776 Y2777 G2778 E2779 N2780 V2781 E2784 L2785 K2786 T2787 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 T2796 E2799 K2800 D2801 K2802 E2803 I2804 Y2805 R2806 L2813 K2814 A2815 M2816 T2822 I2823 E2824 K2825 A2826 R2827
E2828 G2829 E2830 GLU GLU ARG THR GLU LYS LYS LYS THR ARG LYS ILE SER GLN THR ALA GLN THR TYR ASP PRO ARG GLU GLY Y2855 N2856 P2857 Q2858 P2859 P2860 D2861 L2862 S2863 G2864 V2865 T2866 L2867 S2868 L2871 L2878 N2881 Y2882 H2883 N2884 T2885 W2886 K2889 K2890 K2891 L2894 K2897
T2901 H2902 P2903 D2909 T2912 A2913 K2914 A2917 R2918 E2921 Q2924 L2927 K2928 Q2931 M2932 N2933 G2934 Y2935 A2936 V2937 T2938 R2939 GLY LEU LYS ASP MET GLU LEU ASP THR SER S2950 I2951 E2952 K2953 R2954 F2955 L2960 Q2961 Q2962 L2963 L2964 R2965 W2966 M2967 D2968 I2969 S2970 Q2971 E2972
F2973 I2974 A2975 E2978 S2989 P2990 H2991 E2992 I2995 K2996 F2997 F2998 L3002 L3003 P3004 L3005 I3006 N3007 Q3008 Y3009 F3010 T3011 C3014 L3015 Y3016 F3017 L3018 H3030 N3033 K3034 E3035 K3036 E3037 M3038 I3039 T3040 S3041 L3042 F3043 A3047 A3048 L3049 V3050 R3051 H3052 R3053 V3054 S3055 L3056 F3057 D3060

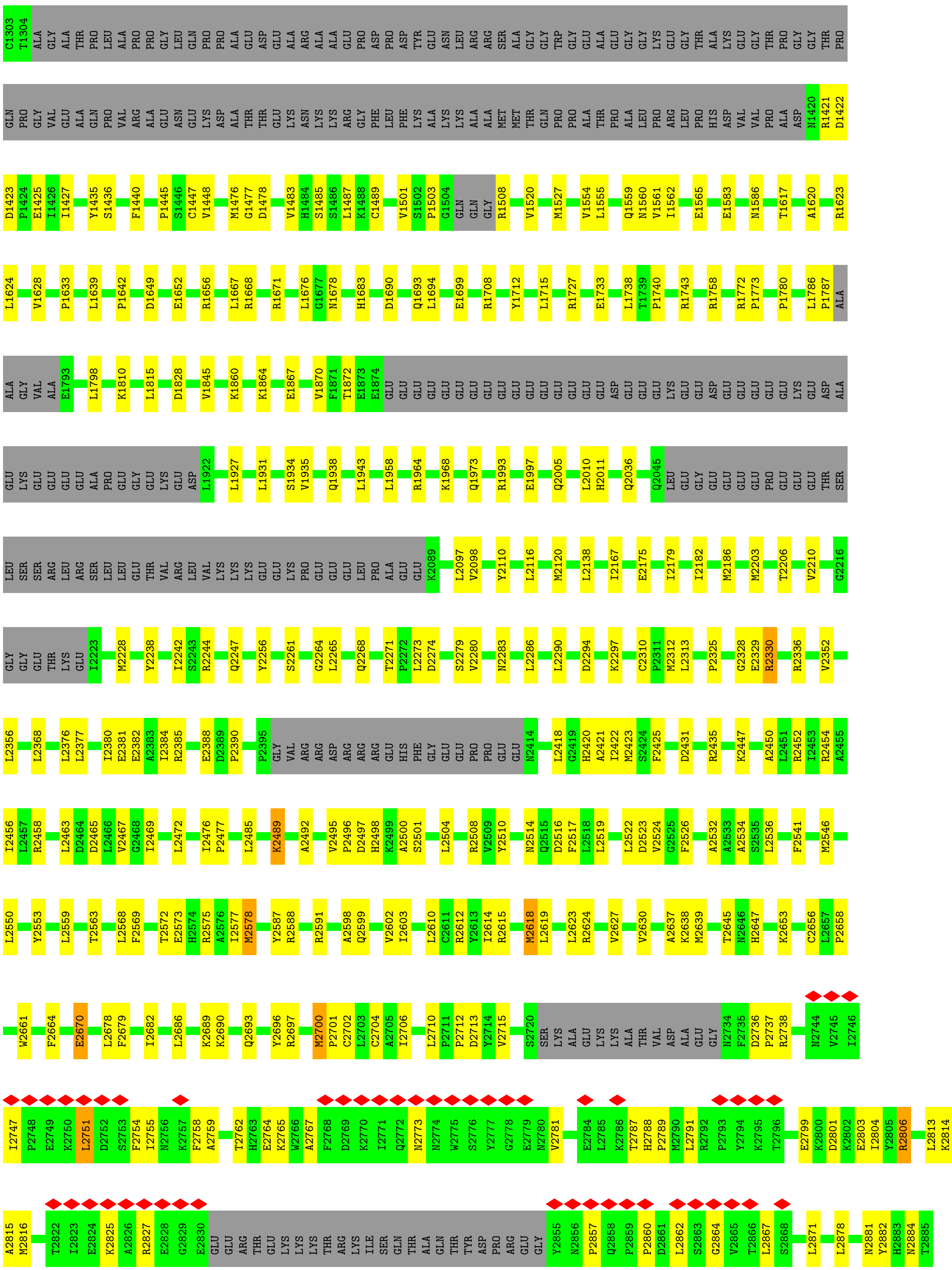


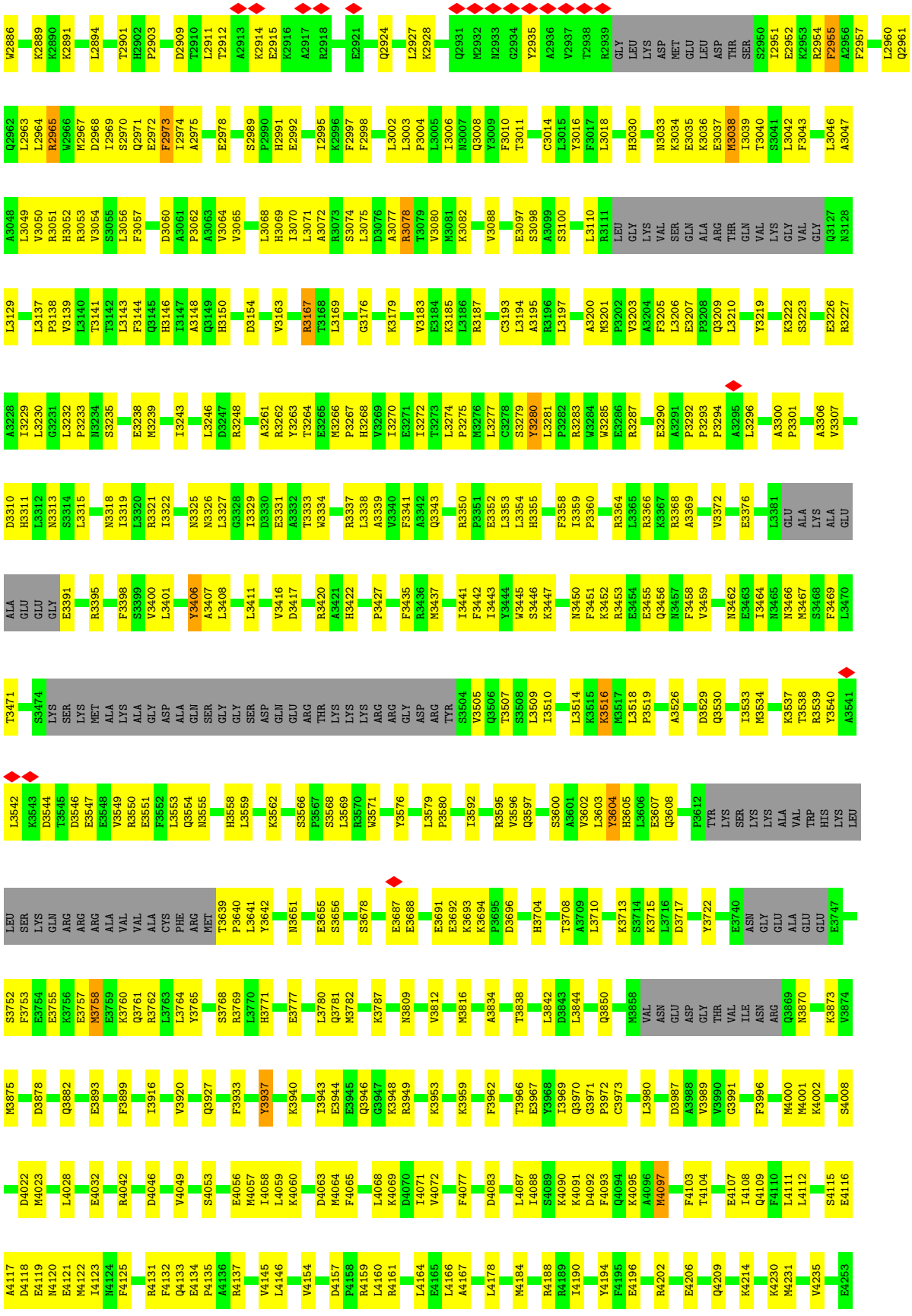


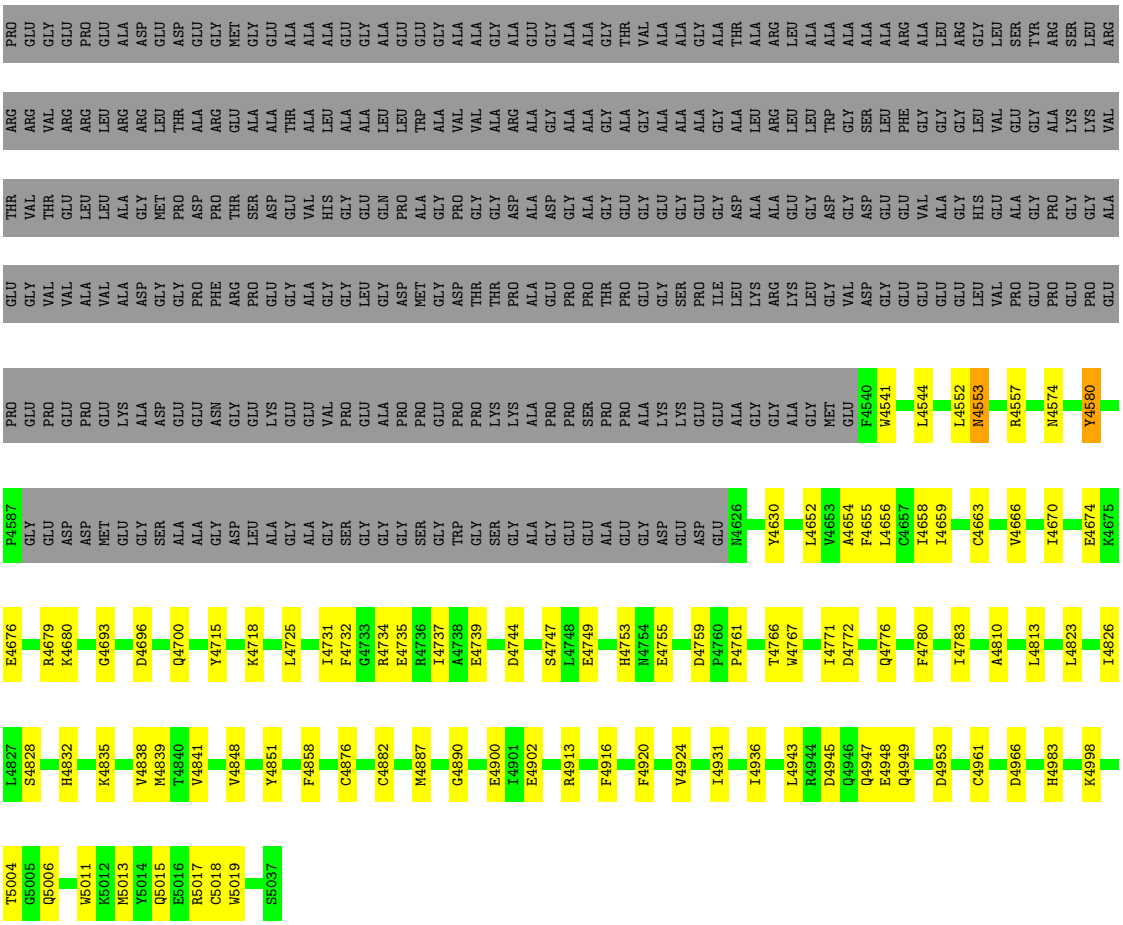
• Molecule 1: Ryanodine receptor 1

Chain E:



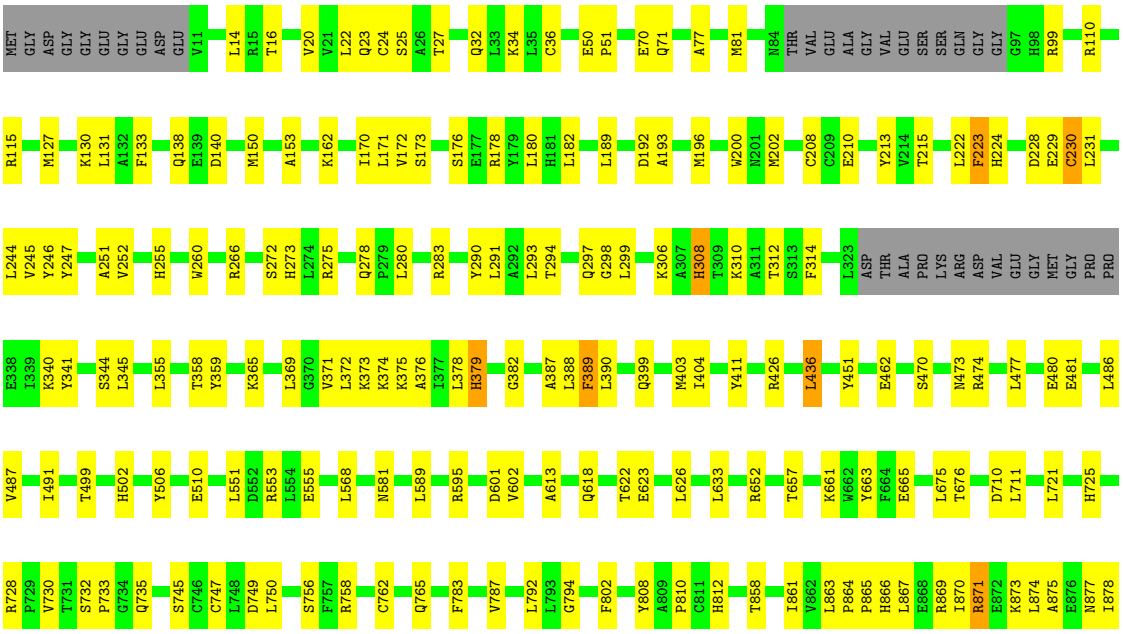

C1303 T1304 ALA GLY ALA THR PRO LEU ALA PRO PRO GLY LEU GLN PRO PRO ALA GLU ASP GLU ALA ARG ALA ALA GLU PRO ASP PRO ASP TYR GLU ASN LEU ARG ARG SER ALA GLY GLY TRP GLY GLU ALA GLU GLY GLY LYS GLU GLY THR ALA LYS GLU GLY THR PRO GLY GLY THR PRO
GLN PRO GLY VAL GLU ALA GLN PRO VAL ARG ALA GLU ASN GLU LYS ASP ALA THR THR GLU LYS ASN LYS LYS ARG GLY PHE LEU PHE LYS ALA LYS LYS ALA ALA MET MET THR GLN PRO PRO ALA THR PRO ALA LEU PRO ARG LEU PRO HIS ASP VAL VAL PRO ALA ASP N1420 R1421 D1422
D1423 P1424 E1425 I1426 I1427 Y1435 S1436 F1440 P1445 S1446 C1447 V1448 M1476 G1477 D1478 V1483 H1484 S1485 S1486 L1487 K1488 C1489 V1501 S1502 P1503 G1504 GLN GLN GLY R1508 V1520 M1527 V1554 L1555 Q1559 N1560 V1561 I1562 E1565 E1583 N1586 T1617 A1620 R1623
L1624 V1628 P1633 L1639 P1642 D1649 E1652 R1656 L1667 R1668 R1671 L1676 G1677 N1678 H1683 D1690 Q1693 L1694 E1699 R1708 Y1712 L1715 R1727 E1733 L1738 T1739 P1740 R1743 R1758 R1772 P1773 P1780 L1786 P1787 ALA
ALA GLY VAL ALA E1793 L1798 K1810 L1815 D1828 V1845 K1860 K1864 E1867 V1870 F1871 T1872 E1873 E1874 GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU ASP GLU GLU GLU LYS GLU GLU ASP GLU GLU GLU GLU GLU LYS GLU ASP ALA
GLU LYS GLU GLU GLU GLU ALA PRO GLU GLY GLU LYS GLU ASP L1922 L1927 L1931 S1934 V1935 Q1938 L1943 L1958 R1964 K1968 Q1973 R1993 E1997 Q2005 L2010 H2011 Q2036 Q2045 LEU GLU GLY GLU GLU GLU GLU PRO GLU GLU GLU THR SER
LEU SER SER ARG LEU ARG SER LEU LEU LEU GLU THR VAL ARG LEU VAL LYS LYS GLU GLU LYS PRO GLU GLU GLU LEU PRO ALA GLU GLU K2089 L2097 V2098 Y2110 L2116 M2120 L2138 I2167 E2175 I2179 I2182 M2186 M2203 T2206 V2210 G2216
GLY GLY GLU THR LYS GLU I2223 M2228 Y2238 I2242 S2243 R2244 Q2247 Y2256 S2261 G2264 L2265 Q2268 T2271 P2272 L2273 D2274 S2279 V2280 N2283 L2286 L2290 D2294 K2297 C2310 P2311 M2312 L2313 P2325 G2328 E2329 R2330 R2336 V2352
L2356 L2368 L2376 L2377 I2380 E2381 E2382 A2383 I2384 R2385 E2388 D2389 P2390 P2395 GLY VAL ARG ARG ASP ARG ARG ARG GLU HIS PHE GLY GLU GLU PRO PRO GLU GLU N2414 L2418 G2419 H2420 A2421 I2422 M2423 S2424 F2425 D2431 R2435 K2447 A2450 L2451 R2452 I2453 R2454 A2455
I2456 L2457 R2458 L2463 D2464 D2465 L2466 V2467 G2468 I2469 L2472 I2476 P2477 L2485 K2489 A2492 V2495 P2496 D2497 H2498 K2499 A2500 S2501 L2504 R2508 V2509 Y2510 N2514 Q2515 D2516 F2517 L2518 L2519 L2522 D2523 V2524 G2525 F2526 A2532 A2533 A2534 S2535 L2536 F2541 M2546
L2550 Y2553 L2559 T2563 L2568 F2569 T2572 E2573 H2574 R2575 A2576 I2577 M2578 Y2587 R2588 R2591 A2598 Q2599 V2602 I2603 L2610 C2611 R2612 Y2613 I2614 R2615 M2618 L2619 L2623 R2624 V2627 V2630 A2637 K2638 M2639 T2645 N2646 H2647 K2653 C2656 L2657 P2658
W2661 F2664 E2670 L2678 F2679 I2682 L2686 K2689 K2690 Q2693 Y2696 R2697 M2700 P2701 C2702 L2703 C2704 A2705 I2706 L2710 P2711 P2712 D2713 Y2714 V2715 S2720 SER LYS ALA GLU LYS LYS ALA THR VAL ASP ALA GLU GLY N2734 F2735 D2736 P2737 R2738 N2744 V2745 I2746
I2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 I2755 N2756 K2757 F2758 A2759 T2762 H2763 E2764 K2765 W2766 A2767 F2768 D2769 K2770 I2771 Q2772 N2773 N2774 W2775 S2776 Y2777 G2778 E2779 N2780 V2781 E2784 L2785 K2786 T2787 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 T2796 E2799 K2800 D2801 K2802 E2803 I2804 Y2805 R2806 L2813 K2814
A2815 M2816 T2822 I2823 E2824 K2825 A2826 R2827 E2828 G2829 E2830 GLU GLU ARG THR GLU LYS LYS LYS THR ARG LYS ILE SER GLN THR ALA GLN THR TYR ASP PRO ARG GLU GLY Y2855 N2856 P2857 Q2858 P2859 P2860 D2861 L2862 S2863 G2864 V2865 T2866 L2867 S2868 L2871 L2878 N2881 Y2882 H2883 N2884 T2885

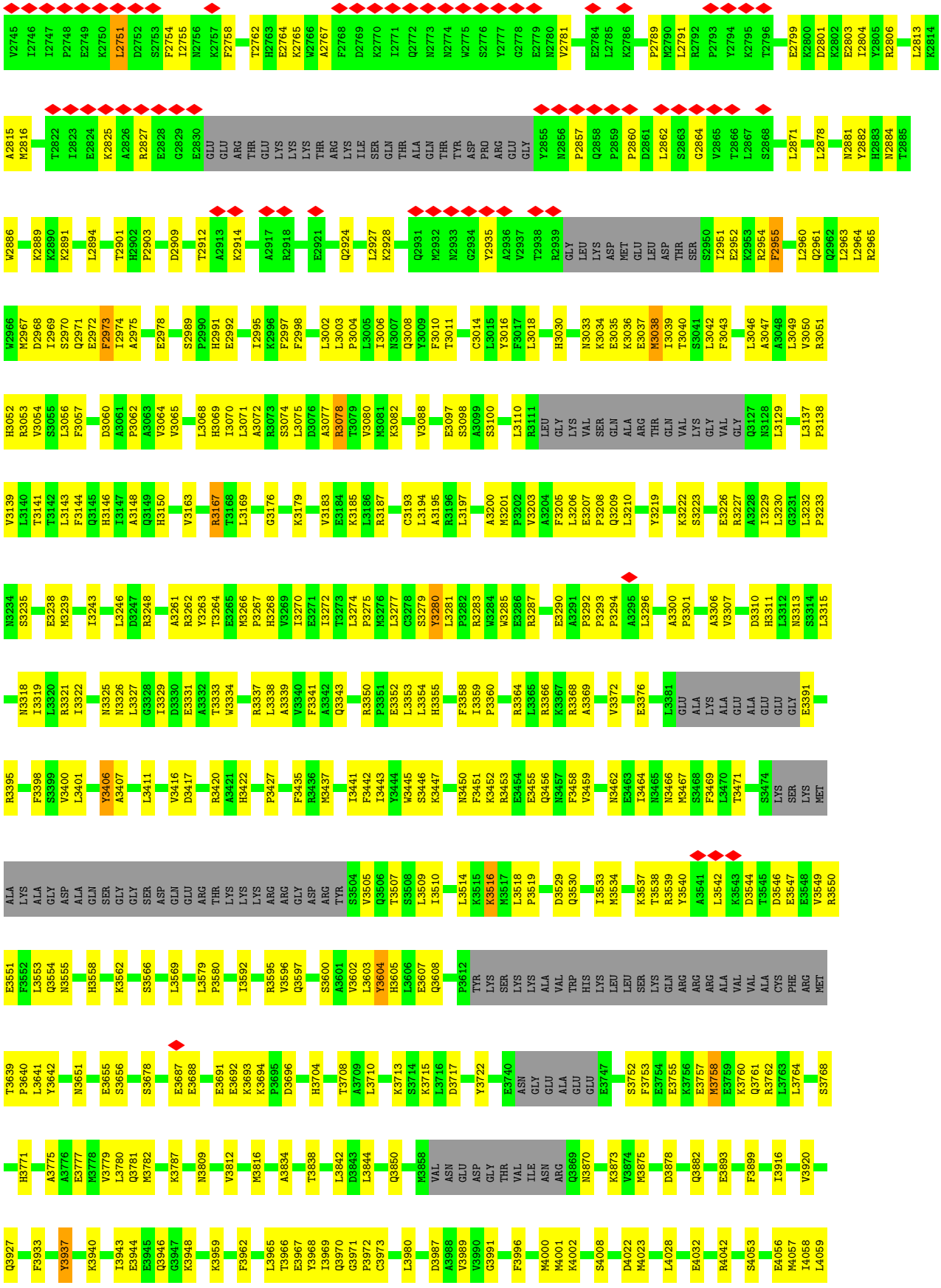


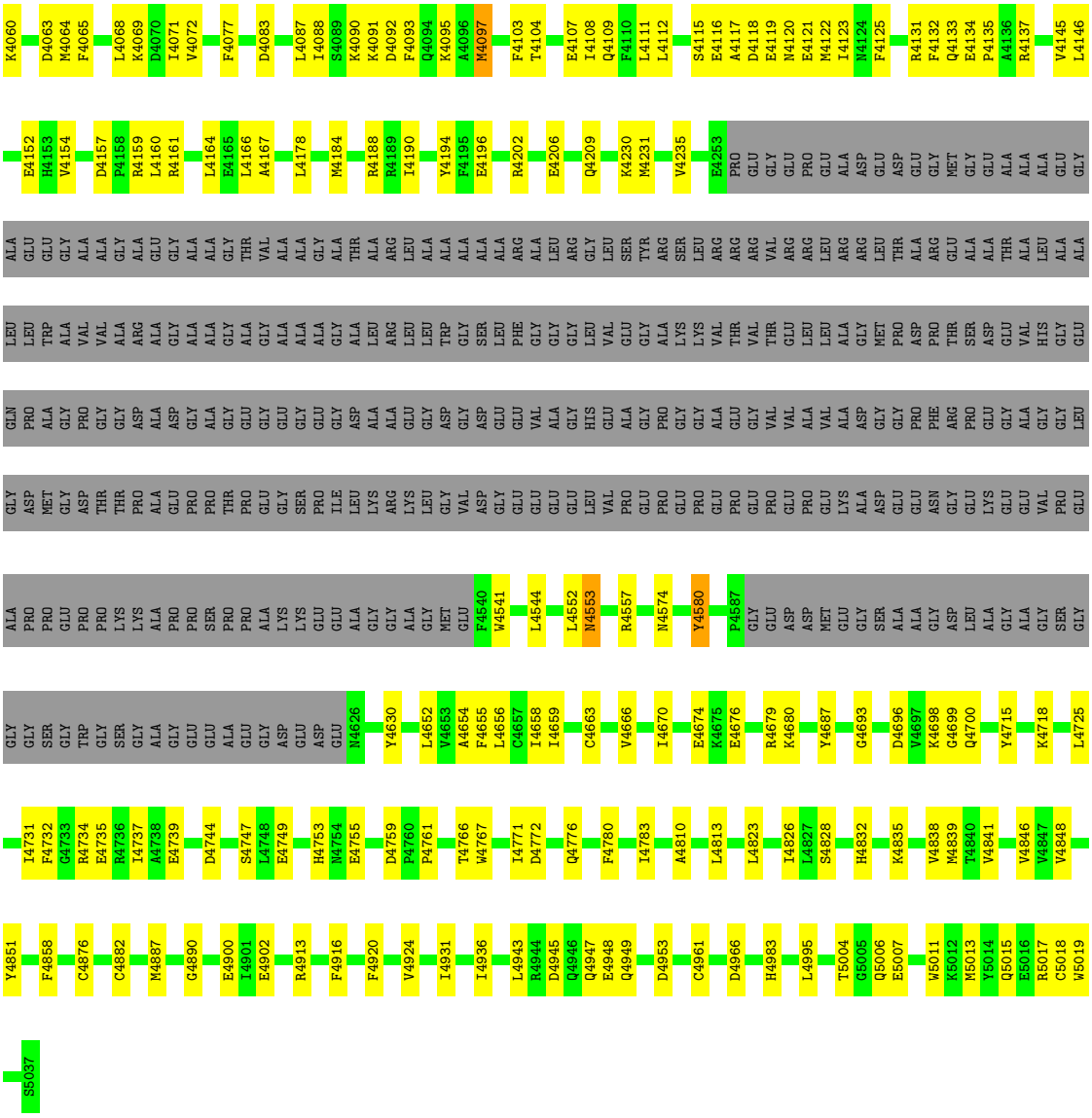


• Molecule 1: Ryanodine receptor 1

Chain G:

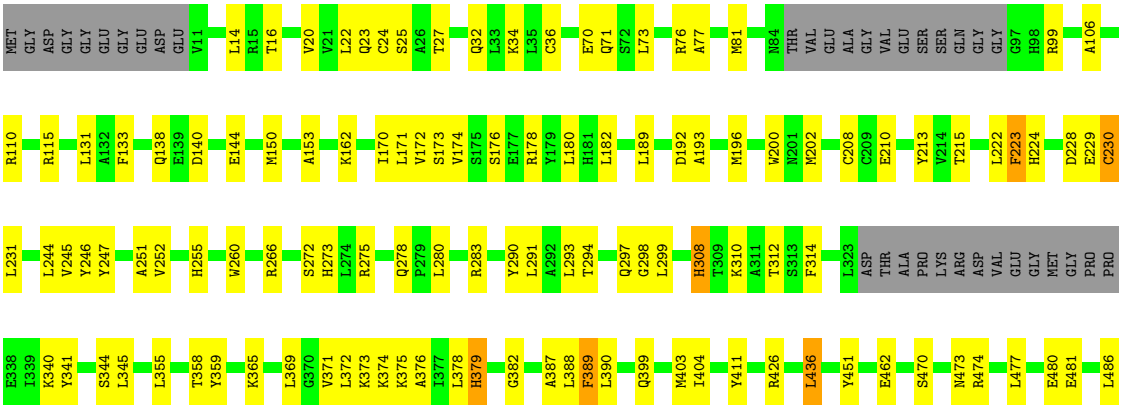


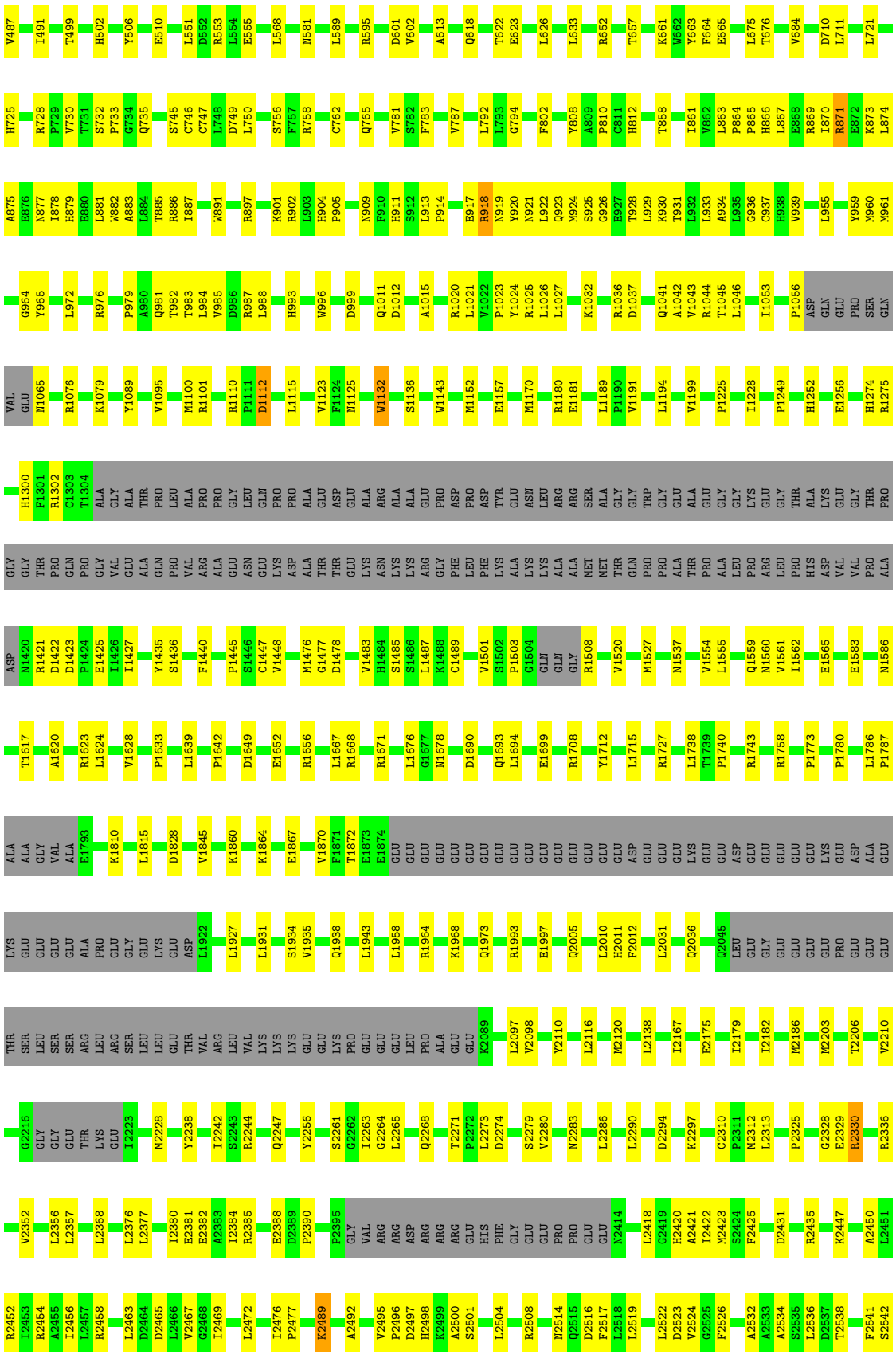


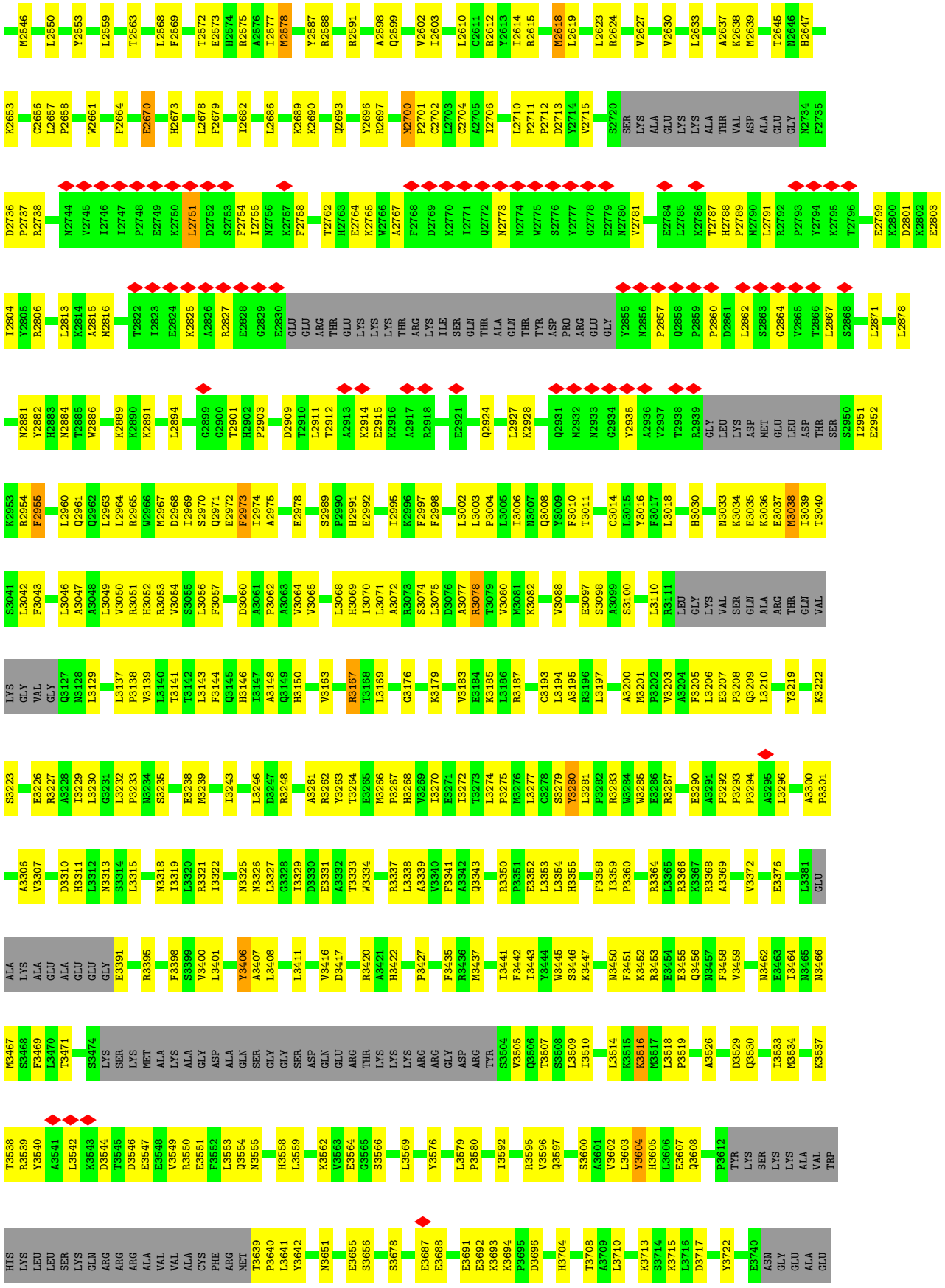


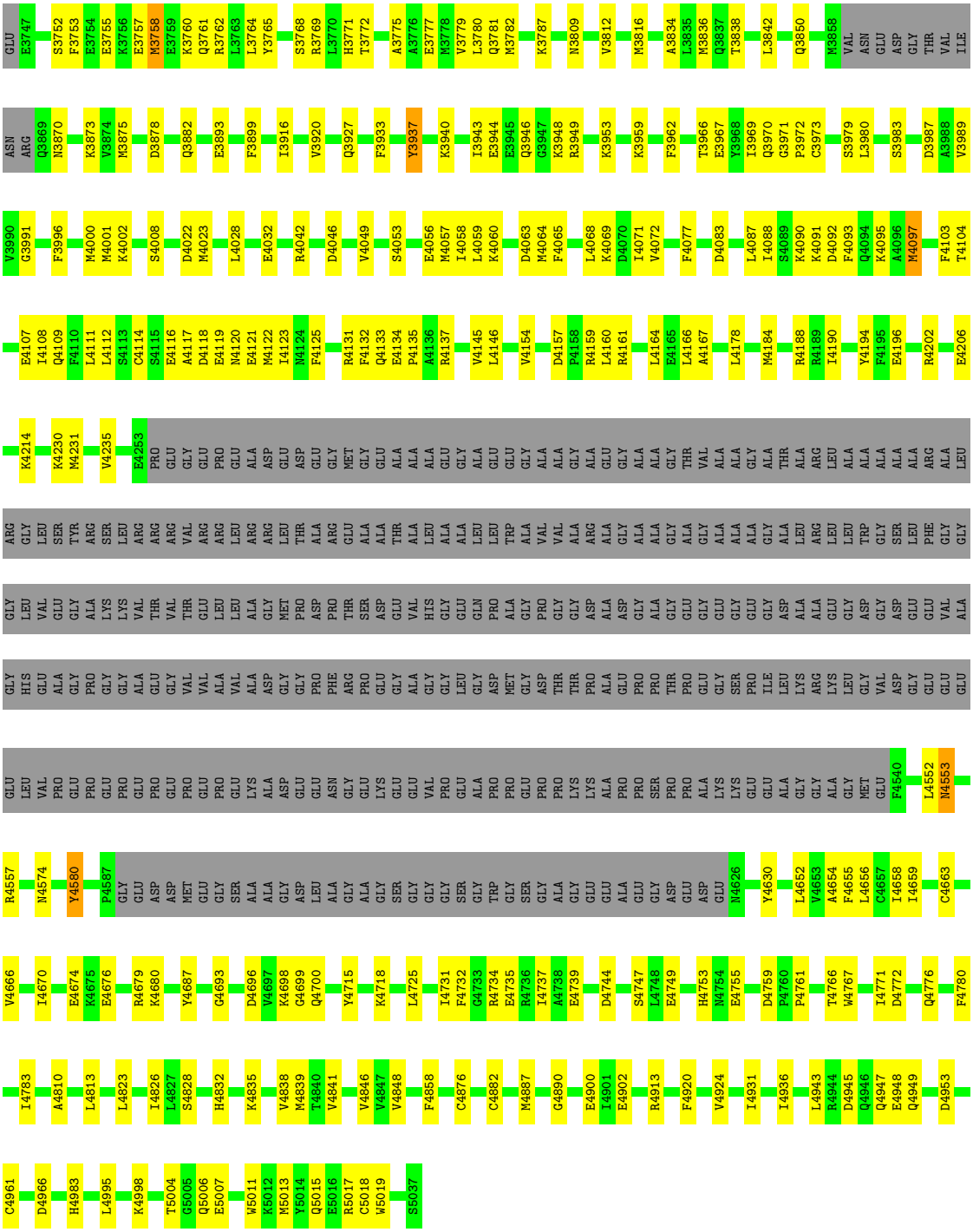
• Molecule 1: Ryanodine receptor 1

Chain J:

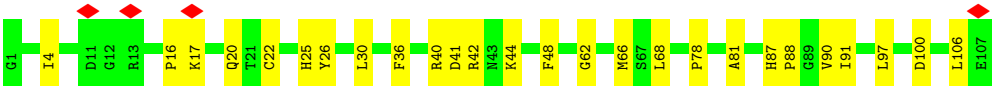






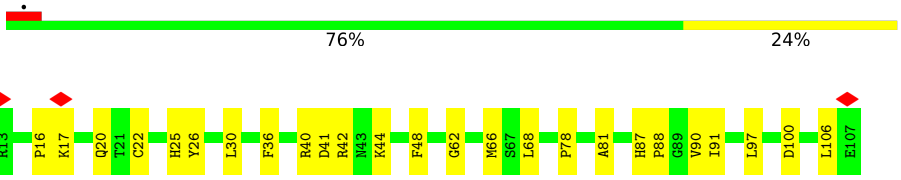


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



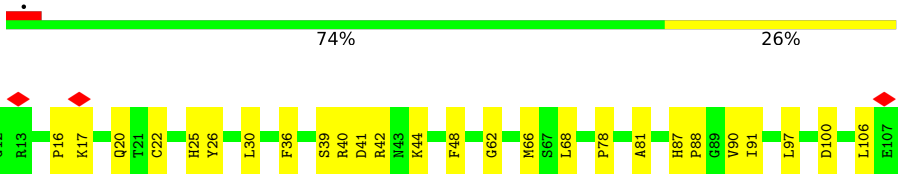
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain D:



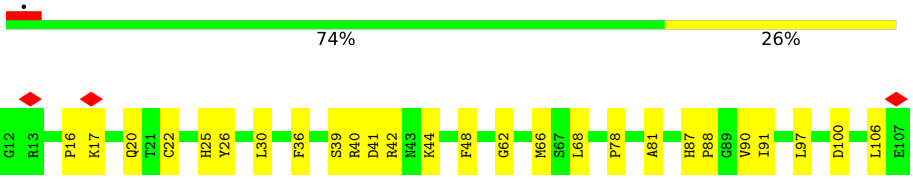
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain H:



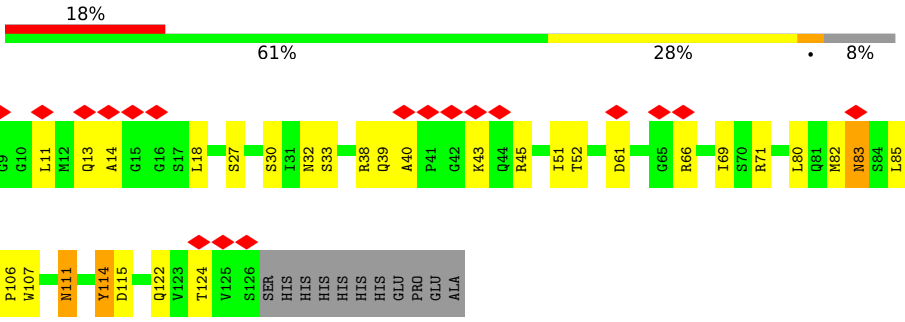
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain I:



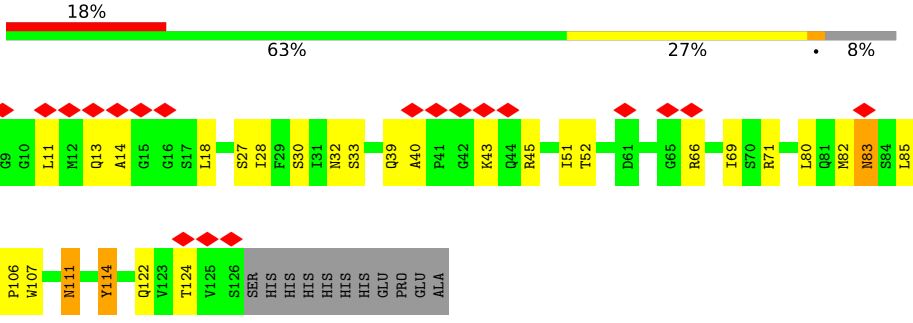
• Molecule 3: nanobody9657

Chain C:



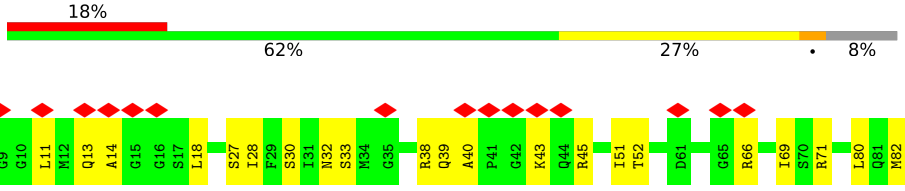
• Molecule 3: nanobody9657

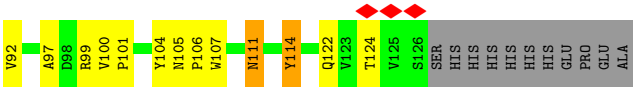
Chain F:



• Molecule 3: nanobody9657

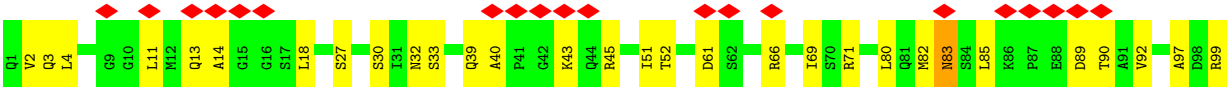
Chain K:





• Molecule 3: nanobody9657

Chain M:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	171023	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	JEOL CRYO ARM 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	6.350	Depositor
Minimum map value	-0.105	Depositor
Average map value	0.076	Depositor
Map value standard deviation	0.164	Depositor
Recommended contour level	0.35	Depositor
Map size (Å)	499.96802, 499.96802, 499.96802	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.488, 1.488, 1.488	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	B	0.25	0/34727	0.50	2/47063 (0.0%)
1	E	0.25	0/34727	0.50	2/47063 (0.0%)
1	G	0.25	0/34727	0.50	2/47063 (0.0%)
1	J	0.25	0/34727	0.50	2/47063 (0.0%)
2	A	0.26	0/834	0.51	0/1123
2	D	0.26	0/834	0.51	0/1123
2	H	0.25	0/834	0.51	0/1123
2	I	0.26	0/834	0.51	0/1123
3	C	0.25	0/987	0.51	0/1340
3	F	0.25	0/987	0.51	0/1340
3	K	0.25	0/987	0.51	0/1340
3	M	0.25	0/987	0.51	0/1340
All	All	0.25	0/146192	0.50	8/198104 (0.0%)

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	1503	PRO	N-CA-CB	5.74	110.19	103.30
1	E	1503	PRO	N-CA-CB	5.74	110.19	103.30
1	G	1503	PRO	N-CA-CB	5.70	110.14	103.30
1	J	1503	PRO	N-CA-CB	5.70	110.14	103.30
1	E	4097	MET	CB-CG-SD	-5.16	96.94	112.40
1	B	4097	MET	CB-CG-SD	-5.15	96.96	112.40
1	G	4097	MET	CB-CG-SD	-5.14	96.99	112.40
1	J	4097	MET	CB-CG-SD	-5.14	96.99	112.40

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	33956	0	33378	744	0
1	E	33956	0	33378	756	0
1	G	33956	0	33378	749	0
1	J	33956	0	33378	765	0
2	A	818	0	824	17	0
2	D	818	0	824	17	0
2	H	818	0	824	19	0
2	I	818	0	824	19	0
3	C	967	0	916	36	0
3	F	967	0	916	34	0
3	K	967	0	916	36	0
3	M	967	0	916	36	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
All	All	142968	0	140472	3180	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 11.

All (3180) 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:J:4961:CYS:SG	1:J:4983:HIS:CE1	2.58	0.97
1:B:4961:CYS:SG	1:B:4983:HIS:CE1	2.58	0.96
1:E:4961:CYS:SG	1:E:4983:HIS:CE1	2.58	0.96
1:G:4961:CYS:SG	1:G:4983:HIS:CE1	2.58	0.95
1:B:870:ILE:HA	1:B:873:LYS:HE2	1.57	0.86
1:B:1520:VAL:HG23	1:B:1527:MET:HG2	1.58	0.86
1:J:870:ILE:HA	1:J:873:LYS:HE2	1.57	0.85
1:E:1520:VAL:HG23	1:E:1527:MET:HG2	1.58	0.84
1:G:870:ILE:HA	1:G:873:LYS:HE2	1.57	0.84
1:E:870:ILE:HA	1:E:873:LYS:HE2	1.57	0.84
1:G:1520:VAL:HG23	1:G:1527:MET:HG2	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1520:VAL:HG23	1:J:1527:MET:HG2	1.58	0.83
1:E:210:GLU:HB3	1:E:213:TYR:HB2	1.61	0.82
1:B:210:GLU:HB3	1:B:213:TYR:HB2	1.61	0.82
1:B:897:ARG:HB2	1:B:905:PRO:HB3	1.62	0.81
1:J:210:GLU:HB3	1:J:213:TYR:HB2	1.61	0.81
1:J:897:ARG:HB2	1:J:905:PRO:HB3	1.62	0.81
1:B:3534:MET:HA	1:B:3537:LYS:HE2	1.63	0.81
1:E:897:ARG:HB2	1:E:905:PRO:HB3	1.62	0.81
1:E:917:GLU:HB2	3:F:104:TYR:HE2	1.46	0.81
1:G:3534:MET:HA	1:G:3537:LYS:HE2	1.63	0.81
1:J:917:GLU:HB2	3:K:104:TYR:HE2	1.45	0.81
1:G:210:GLU:HB3	1:G:213:TYR:HB2	1.61	0.81
1:E:3534:MET:HA	1:E:3537:LYS:HE2	1.63	0.81
1:J:3534:MET:HA	1:J:3537:LYS:HE2	1.63	0.80
1:G:897:ARG:HB2	1:G:905:PRO:HB3	1.62	0.80
1:B:3227:ARG:HB3	1:B:3232:LEU:HB2	1.64	0.79
1:B:917:GLU:HB2	3:C:104:TYR:HE2	1.48	0.79
1:E:3227:ARG:HB3	1:E:3232:LEU:HB2	1.64	0.79
1:G:3227:ARG:HB3	1:G:3232:LEU:HB2	1.64	0.78
1:J:3227:ARG:HB3	1:J:3232:LEU:HB2	1.64	0.78
1:G:981:GLN:HA	1:G:984:LEU:HD12	1.66	0.77
1:E:1422:ASP:HB2	1:E:1427:ILE:HD11	1.67	0.77
1:J:919:ASN:O	1:J:923:GLN:NE2	2.12	0.77
1:J:1422:ASP:HB2	1:J:1427:ILE:HD11	1.67	0.77
1:J:2951:ILE:HD12	1:J:2954:ARG:HD2	1.67	0.77
1:J:981:GLN:HA	1:J:984:LEU:HD12	1.66	0.77
1:B:981:GLN:HA	1:B:984:LEU:HD12	1.66	0.76
1:E:2951:ILE:HD12	1:E:2954:ARG:HD2	1.67	0.76
1:G:917:GLU:HB2	3:M:104:TYR:HE2	1.49	0.76
1:B:2951:ILE:HD12	1:B:2954:ARG:HD2	1.67	0.76
1:B:1422:ASP:HB2	1:B:1427:ILE:HD11	1.67	0.76
1:E:981:GLN:HA	1:E:984:LEU:HD12	1.66	0.75
1:B:919:ASN:O	1:B:923:GLN:NE2	2.12	0.75
1:G:919:ASN:O	1:G:923:GLN:NE2	2.12	0.75
1:G:1422:ASP:HB2	1:G:1427:ILE:HD11	1.67	0.75
1:B:3416:VAL:HB	1:B:3516:LYS:NZ	2.02	0.74
1:E:3416:VAL:HB	1:E:3516:LYS:HZ1	1.52	0.74
1:J:3416:VAL:HB	1:J:3516:LYS:NZ	2.02	0.74
1:E:3416:VAL:HB	1:E:3516:LYS:NZ	2.02	0.74
1:J:4060:LYS:O	1:J:4064:MET:HG2	1.87	0.74
1:B:4060:LYS:O	1:B:4064:MET:HG2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3416:VAL:HB	1:G:3516:LYS:NZ	2.02	0.74
1:E:2998:PHE:HA	1:E:3002:LEU:HD23	1.70	0.74
1:G:4060:LYS:O	1:G:4064:MET:HG2	1.87	0.74
1:J:917:GLU:HB2	3:K:104:TYR:CE2	2.22	0.74
1:B:2998:PHE:HA	1:B:3002:LEU:HD23	1.70	0.74
1:E:3262:ARG:HG3	1:E:3326:ASN:HD21	1.52	0.74
1:G:2998:PHE:HA	1:G:3002:LEU:HD23	1.70	0.74
1:E:4060:LYS:O	1:E:4064:MET:HG2	1.88	0.74
1:J:2998:PHE:HA	1:J:3002:LEU:HD23	1.70	0.74
1:B:917:GLU:HB2	3:C:104:TYR:CE2	2.23	0.74
1:E:917:GLU:HB2	3:F:104:TYR:CE2	2.22	0.73
1:G:2951:ILE:HD12	1:G:2954:ARG:HD2	1.67	0.73
3:F:111:ASN:HA	3:F:114:TYR:HB2	1.69	0.73
3:K:111:ASN:HA	3:K:114:TYR:HB2	1.69	0.73
1:G:3262:ARG:HG3	1:G:3326:ASN:HD21	1.52	0.73
1:J:3262:ARG:HG3	1:J:3326:ASN:HD21	1.52	0.73
1:J:3687:GLU:HB3	1:J:3693:LYS:HE2	1.71	0.73
1:E:919:ASN:O	1:E:923:GLN:NE2	2.12	0.73
1:E:3368:ARG:HH22	1:E:3400:VAL:HG22	1.54	0.73
1:G:3687:GLU:HB3	1:G:3693:LYS:HE2	1.71	0.73
1:G:4735:GLU:OE1	1:G:4735:GLU:N	2.22	0.72
3:F:105:ASN:HD21	3:F:107:TRP:HD1	1.37	0.72
1:B:3687:GLU:HB3	1:B:3693:LYS:HE2	1.71	0.72
1:J:920:TYR:HA	1:J:923:GLN:HG2	1.72	0.72
1:E:2704:CYS:HB3	1:E:3008:GLN:HG2	1.72	0.72
1:J:3368:ARG:HH22	1:J:3400:VAL:HG22	1.54	0.72
1:B:3368:ARG:HH22	1:B:3400:VAL:HG22	1.54	0.72
1:B:2704:CYS:HB3	1:B:3008:GLN:HG2	1.72	0.72
1:B:3262:ARG:HG3	1:B:3326:ASN:HD21	1.52	0.72
3:K:105:ASN:HD21	3:K:107:TRP:HD1	1.37	0.72
1:E:920:TYR:HA	1:E:923:GLN:HG2	1.72	0.71
1:G:920:TYR:HA	1:G:923:GLN:HG2	1.72	0.71
1:G:917:GLU:HB2	3:M:104:TYR:CE2	2.24	0.71
1:G:3368:ARG:HH22	1:G:3400:VAL:HG22	1.54	0.71
1:J:3235:SER:HB3	1:J:3238:GLU:HG3	1.72	0.71
1:B:4735:GLU:OE1	1:B:4735:GLU:N	2.22	0.71
1:J:1256:GLU:HB2	1:J:1275:ARG:HE	1.56	0.71
1:E:3687:GLU:HB3	1:E:3693:LYS:HE2	1.71	0.71
3:M:111:ASN:HA	3:M:114:TYR:HB2	1.73	0.71
1:E:2974:ILE:HD11	1:E:3049:LEU:HD22	1.72	0.71
3:C:105:ASN:HD21	3:C:107:TRP:HD1	1.39	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:920:TYR:HA	1:B:923:GLN:HG2	1.72	0.71
1:B:2974:ILE:HD11	1:B:3049:LEU:HD22	1.72	0.71
3:C:111:ASN:HA	3:C:114:TYR:HB2	1.71	0.70
1:B:3235:SER:HB3	1:B:3238:GLU:HG3	1.72	0.70
1:G:4574:ASN:HD21	1:G:4810:ALA:HA	1.56	0.70
1:J:4735:GLU:OE1	1:J:4735:GLU:N	2.22	0.70
1:G:3319:ILE:HG12	1:G:3338:LEU:HD21	1.72	0.70
1:J:4574:ASN:HD21	1:J:4810:ALA:HA	1.56	0.70
1:B:875:ALA:O	1:B:879:HIS:ND1	2.25	0.70
1:E:3603:LEU:O	1:E:3607:GLU:HG3	1.91	0.70
1:G:2704:CYS:HB3	1:G:3008:GLN:HG2	1.72	0.70
1:E:3319:ILE:HG12	1:E:3338:LEU:HD21	1.72	0.70
1:G:875:ALA:O	1:G:879:HIS:ND1	2.25	0.70
1:J:2974:ILE:HD11	1:J:3049:LEU:HD22	1.72	0.70
1:J:2704:CYS:HB3	1:J:3008:GLN:HG2	1.72	0.70
1:E:3235:SER:HB3	1:E:3238:GLU:HG3	1.72	0.70
1:B:247:TYR:CD2	1:B:372:LEU:HB3	2.26	0.70
1:E:1256:GLU:HB2	1:E:1275:ARG:HE	1.56	0.70
1:G:3235:SER:HB3	1:G:3238:GLU:HG3	1.72	0.70
1:B:3603:LEU:O	1:B:3607:GLU:HG3	1.91	0.70
1:G:2974:ILE:HD11	1:G:3049:LEU:HD22	1.72	0.70
1:G:1256:GLU:HB2	1:G:1275:ARG:HE	1.56	0.69
1:G:3603:LEU:O	1:G:3607:GLU:HG3	1.91	0.69
1:J:3319:ILE:HG12	1:J:3338:LEU:HD21	1.72	0.69
1:J:3416:VAL:HB	1:J:3516:LYS:HZ1	1.57	0.69
1:E:3533:ILE:O	1:E:3537:LYS:HG3	1.92	0.69
1:E:4574:ASN:HD21	1:E:4810:ALA:HA	1.56	0.69
1:B:3319:ILE:HG12	1:B:3338:LEU:HD21	1.72	0.69
1:E:3537:LYS:HB3	1:E:3604:TYR:CD1	2.27	0.69
1:E:4735:GLU:OE1	1:E:4735:GLU:N	2.22	0.69
1:G:3533:ILE:O	1:G:3537:LYS:HG3	1.92	0.69
1:B:3537:LYS:HB3	1:B:3604:TYR:CD1	2.27	0.69
1:J:3603:LEU:O	1:J:3607:GLU:HG3	1.91	0.69
1:B:3533:ILE:O	1:B:3537:LYS:HG3	1.92	0.69
1:E:3233:PRO:HD2	1:E:3239:MET:HG2	1.74	0.69
1:J:1740:PRO:HA	1:J:1743:ARG:HG2	1.74	0.69
1:B:4574:ASN:HD21	1:B:4810:ALA:HA	1.56	0.69
1:E:4725:LEU:HD11	1:E:4734:ARG:HG3	1.75	0.69
1:G:4679:ARG:NH1	1:G:4715:TYR:OH	2.26	0.69
1:B:4725:LEU:HD11	1:B:4734:ARG:HG3	1.75	0.69
1:E:875:ALA:O	1:E:879:HIS:ND1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3453:ARG:NH1	1:E:3456:GLN:OE1	2.26	0.69
1:G:675:LEU:HG	1:G:676:THR:HG23	1.75	0.69
1:J:3233:PRO:HD2	1:J:3239:MET:HG2	1.74	0.69
1:J:3453:ARG:NH1	1:J:3456:GLN:OE1	2.26	0.69
1:B:675:LEU:HG	1:B:676:THR:HG23	1.75	0.69
1:G:3416:VAL:HB	1:G:3516:LYS:HZ1	1.58	0.69
1:G:3537:LYS:HB3	1:G:3604:TYR:CD1	2.27	0.69
1:J:3018:LEU:HB3	1:J:3074:SER:HA	1.74	0.69
1:J:3533:ILE:O	1:J:3537:LYS:HG3	1.92	0.69
1:B:1740:PRO:HA	1:B:1743:ARG:HG2	1.74	0.68
1:E:223:PHE:O	1:E:389:PHE:N	2.21	0.68
1:E:1740:PRO:HA	1:E:1743:ARG:HG2	1.74	0.68
1:B:1256:GLU:HB2	1:B:1275:ARG:HE	1.56	0.68
1:E:675:LEU:HG	1:E:676:THR:HG23	1.75	0.68
1:E:3018:LEU:HB3	1:E:3074:SER:HA	1.74	0.68
1:E:4679:ARG:NH1	1:E:4715:TYR:OH	2.26	0.68
1:J:875:ALA:O	1:J:879:HIS:ND1	2.25	0.68
1:J:2963:LEU:O	1:J:2967:MET:HG2	1.94	0.68
1:J:4679:ARG:NH1	1:J:4715:TYR:OH	2.26	0.68
1:B:4116:GLU:O	1:B:4118:ASP:N	2.27	0.68
1:B:3233:PRO:HD2	1:B:3239:MET:HG2	1.74	0.68
1:J:4116:GLU:O	1:J:4118:ASP:N	2.27	0.68
1:B:4679:ARG:NH1	1:B:4715:TYR:OH	2.26	0.68
1:G:4116:GLU:O	1:G:4118:ASP:N	2.27	0.68
1:E:3036:LYS:HD3	1:E:3039:ILE:HD12	1.76	0.68
1:E:4580:TYR:HE2	1:E:4630:TYR:HB3	1.59	0.68
1:B:2963:LEU:O	1:B:2967:MET:HG2	1.93	0.68
1:B:3018:LEU:HB3	1:B:3074:SER:HA	1.74	0.68
1:G:4725:LEU:HD11	1:G:4734:ARG:HG3	1.75	0.68
1:G:1740:PRO:HA	1:G:1743:ARG:HG2	1.74	0.68
1:G:3233:PRO:HD2	1:G:3239:MET:HG2	1.74	0.68
1:J:675:LEU:HG	1:J:676:THR:HG23	1.75	0.68
1:J:3537:LYS:HB3	1:J:3604:TYR:CD1	2.27	0.68
1:G:2963:LEU:O	1:G:2967:MET:HG2	1.94	0.67
1:J:4725:LEU:HD11	1:J:4734:ARG:HG3	1.75	0.67
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.27	0.67
1:J:3036:LYS:HD3	1:J:3039:ILE:HD12	1.76	0.67
1:J:4580:TYR:HE2	1:J:4630:TYR:HB3	1.59	0.67
1:B:223:PHE:O	1:B:389:PHE:N	2.21	0.67
1:B:3036:LYS:HD3	1:B:3039:ILE:HD12	1.76	0.67
1:E:2963:LEU:O	1:E:2967:MET:HG2	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3376:GLU:OE2	1:E:3450:ASN:ND2	2.28	0.67
1:E:4116:GLU:O	1:E:4118:ASP:N	2.27	0.67
1:G:3018:LEU:HB3	1:G:3074:SER:HA	1.74	0.67
1:G:3036:LYS:HD3	1:G:3039:ILE:HD12	1.76	0.67
1:J:3376:GLU:OE2	1:J:3450:ASN:ND2	2.28	0.67
1:B:375:LYS:HG2	1:B:377:ILE:HD11	1.75	0.67
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.27	0.67
1:G:4580:TYR:HE2	1:G:4630:TYR:HB3	1.59	0.67
1:E:2712:PRO:HA	1:E:2955:PHE:HB3	1.76	0.67
1:J:2712:PRO:HA	1:J:2955:PHE:HB3	1.76	0.67
1:E:293:LEU:HD12	1:E:378:LEU:HD13	1.75	0.67
1:G:3376:GLU:OE2	1:G:3450:ASN:ND2	2.28	0.67
1:G:2577:ILE:HG23	1:G:2578:MET:SD	2.35	0.67
3:K:104:TYR:HE1	3:K:106:PRO:HG3	1.60	0.67
1:B:2577:ILE:HG23	1:B:2578:MET:SD	2.35	0.67
1:B:3376:GLU:OE2	1:B:3450:ASN:ND2	2.28	0.67
1:G:874:LEU:HA	1:G:877:ASN:HD21	1.60	0.67
1:G:2952:GLU:OE1	1:G:2961:GLN:NE2	2.28	0.67
1:B:3937:TYR:O	1:B:4002:LYS:NZ	2.27	0.67
1:B:4580:TYR:HE2	1:B:4630:TYR:HB3	1.59	0.67
1:J:2952:GLU:OE1	1:J:2961:GLN:NE2	2.28	0.67
1:B:2952:GLU:OE1	1:B:2961:GLN:NE2	2.28	0.66
1:G:2712:PRO:HA	1:G:2955:PHE:HB3	1.76	0.66
1:G:247:TYR:CD2	1:G:372:LEU:HB3	2.30	0.66
1:J:3937:TYR:O	1:J:4002:LYS:NZ	2.27	0.66
1:E:345:LEU:HB3	1:E:387:ALA:HB1	1.78	0.66
1:G:2536:LEU:HD13	1:G:2541:PHE:HB3	1.78	0.66
1:B:2536:LEU:HD13	1:B:2541:PHE:HB3	1.78	0.66
1:B:2712:PRO:HA	1:B:2955:PHE:HB3	1.76	0.66
1:J:2116:LEU:O	1:J:2120:MET:HG2	1.96	0.66
1:E:2577:ILE:HG23	1:E:2578:MET:SD	2.35	0.66
1:E:2952:GLU:OE1	1:E:2961:GLN:NE2	2.28	0.66
1:J:874:LEU:HA	1:J:877:ASN:HD21	1.60	0.66
1:B:1300:HIS:O	1:B:1302:ARG:NH1	2.29	0.66
1:E:1300:HIS:O	1:E:1302:ARG:NH1	2.29	0.66
1:G:665:GLU:HB3	1:G:792:LEU:HB2	1.78	0.66
1:G:2469:ILE:HA	1:G:2472:LEU:HD23	1.78	0.66
1:G:3453:ARG:NH1	1:G:3456:GLN:OE1	2.26	0.66
1:B:2469:ILE:HA	1:B:2472:LEU:HD23	1.78	0.66
1:E:874:LEU:HA	1:E:877:ASN:HD21	1.60	0.65
1:E:2116:LEU:O	1:E:2120:MET:HG2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:345:LEU:HB3	1:B:387:ALA:HB1	1.78	0.65
1:G:1300:HIS:O	1:G:1302:ARG:NH1	2.29	0.65
1:J:247:TYR:CD2	1:J:372:LEU:HB3	2.30	0.65
1:J:293:LEU:HD12	1:J:378:LEU:HD13	1.78	0.65
1:J:2577:ILE:HG23	1:J:2578:MET:SD	2.35	0.65
1:B:874:LEU:HA	1:B:877:ASN:HD21	1.60	0.65
1:B:2116:LEU:O	1:B:2120:MET:HG2	1.96	0.65
1:E:3996:PHE:O	1:E:4000:MET:HG3	1.96	0.65
1:G:3996:PHE:O	1:G:4000:MET:HG3	1.96	0.65
1:B:1089:TYR:HD1	1:B:1152:MET:HG2	1.61	0.65
1:G:293:LEU:HD12	1:G:378:LEU:HD13	1.78	0.65
1:J:665:GLU:HB3	1:J:792:LEU:HB2	1.78	0.65
1:E:3176:GLY:HA2	1:E:3272:ILE:HD12	1.79	0.65
1:G:293:LEU:HD11	1:G:355:LEU:HD12	1.79	0.65
1:J:2536:LEU:HD13	1:J:2541:PHE:HB3	1.78	0.65
1:E:2536:LEU:HD13	1:E:2541:PHE:HB3	1.78	0.65
1:J:293:LEU:HD11	1:J:355:LEU:HD12	1.79	0.65
1:J:1300:HIS:O	1:J:1302:ARG:NH1	2.29	0.65
1:B:4902:GLU:O	1:B:4913:ARG:NH2	2.30	0.65
1:E:2469:ILE:HA	1:E:2472:LEU:HD23	1.78	0.65
1:G:223:PHE:O	1:G:389:PHE:N	2.21	0.65
1:G:2116:LEU:O	1:G:2120:MET:HG2	1.96	0.65
1:G:4131:ARG:O	1:G:4133:GLN:HG2	1.97	0.65
1:G:4902:GLU:O	1:G:4913:ARG:NH2	2.30	0.65
1:J:345:LEU:HB3	1:J:387:ALA:HB1	1.78	0.65
1:J:3270:ILE:HA	1:J:3274:LEU:HD23	1.79	0.65
1:E:1089:TYR:HD1	1:E:1152:MET:HG2	1.61	0.64
1:G:345:LEU:HB3	1:G:387:ALA:HB1	1.78	0.64
3:F:104:TYR:HE1	3:F:106:PRO:HG3	1.59	0.64
1:B:3996:PHE:O	1:B:4000:MET:HG3	1.96	0.64
1:G:3270:ILE:HA	1:G:3274:LEU:HD23	1.79	0.64
1:J:3996:PHE:O	1:J:4000:MET:HG3	1.96	0.64
1:G:3445:TRP:HA	1:G:3451:PHE:HD1	1.63	0.64
1:B:665:GLU:HB3	1:B:792:LEU:HB2	1.78	0.64
1:B:2377:LEU:HA	1:B:2469:ILE:HD11	1.79	0.64
1:B:3453:ARG:NH1	1:B:3456:GLN:OE1	2.26	0.64
1:E:652:ARG:HD3	1:E:750:LEU:HB3	1.80	0.64
1:J:2469:ILE:HA	1:J:2472:LEU:HD23	1.78	0.64
1:J:3176:GLY:HA2	1:J:3272:ILE:HD12	1.79	0.64
1:J:3553:LEU:HD11	1:J:3597:GLN:HG3	1.79	0.64
1:B:983:THR:O	1:B:987:ARG:HG3	1.98	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3270:ILE:HA	1:B:3274:LEU:HD23	1.79	0.64
1:B:3445:TRP:HA	1:B:3451:PHE:HD1	1.63	0.64
1:E:3270:ILE:HA	1:E:3274:LEU:HD23	1.79	0.64
1:E:3445:TRP:HA	1:E:3451:PHE:HD1	1.63	0.64
1:J:3445:TRP:HA	1:J:3451:PHE:HD1	1.63	0.64
1:G:983:THR:O	1:G:987:ARG:HG3	1.98	0.64
1:G:2377:LEU:HA	1:G:2469:ILE:HD11	1.79	0.64
1:J:4131:ARG:O	1:J:4133:GLN:HG2	1.97	0.64
1:B:4131:ARG:O	1:B:4133:GLN:HG2	1.97	0.64
3:M:105:ASN:HD21	3:M:107:TRP:HD1	1.46	0.64
1:B:3553:LEU:HD11	1:B:3597:GLN:HG3	1.79	0.64
1:E:247:TYR:H	1:E:374:LYS:H	1.46	0.64
1:J:983:THR:O	1:J:987:ARG:HG3	1.98	0.64
1:B:293:LEU:HD12	1:B:378:LEU:HD13	1.78	0.64
1:B:3176:GLY:HA2	1:B:3272:ILE:HD12	1.79	0.64
1:B:3987:ASP:OD2	1:E:162:LYS:NZ	2.29	0.64
1:E:665:GLU:HB3	1:E:792:LEU:HB2	1.78	0.64
1:G:1089:TYR:HD1	1:G:1152:MET:HG2	1.61	0.64
1:J:1089:TYR:HD1	1:J:1152:MET:HG2	1.61	0.64
1:E:293:LEU:HD11	1:E:355:LEU:HD12	1.79	0.64
1:E:2377:LEU:HA	1:E:2469:ILE:HD11	1.79	0.64
1:E:4131:ARG:O	1:E:4133:GLN:HG2	1.97	0.64
1:B:652:ARG:HD3	1:B:750:LEU:HB3	1.80	0.63
1:J:2862:LEU:HG	1:J:2864:GLY:H	1.63	0.63
1:J:3194:LEU:HG	1:J:3279:SER:HB2	1.80	0.63
1:E:983:THR:O	1:E:987:ARG:HG3	1.98	0.63
1:G:3176:GLY:HA2	1:G:3272:ILE:HD12	1.79	0.63
1:J:4902:GLU:O	1:J:4913:ARG:NH2	2.30	0.63
1:B:293:LEU:HD11	1:B:355:LEU:HD12	1.79	0.63
1:E:4902:GLU:O	1:E:4913:ARG:NH2	2.30	0.63
3:F:33:SER:HA	3:F:52:THR:HA	1.80	0.63
3:K:33:SER:HA	3:K:52:THR:HA	1.79	0.63
1:E:3194:LEU:HG	1:E:3279:SER:HB2	1.80	0.63
1:E:3842:LEU:HD23	1:E:3875:MET:HG3	1.81	0.63
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.81	0.63
1:G:2862:LEU:HG	1:G:2864:GLY:H	1.63	0.63
1:B:224:HIS:HA	1:B:388:LEU:HA	1.81	0.63
1:J:404:ILE:HD13	1:J:481:GLU:HG3	1.81	0.63
1:J:652:ARG:HD3	1:J:750:LEU:HB3	1.80	0.63
1:B:404:ILE:HD13	1:B:481:GLU:HG3	1.81	0.63
1:B:2447:LYS:HG2	1:B:2450:ALA:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2862:LEU:HG	1:B:2864:GLY:H	1.63	0.63
1:B:3842:LEU:HD23	1:B:3875:MET:HG3	1.81	0.63
1:B:3970:GLN:HE21	1:B:5004:THR:HA	1.63	0.63
1:G:3553:LEU:HD11	1:G:3597:GLN:HG3	1.79	0.63
1:J:2377:LEU:HA	1:J:2469:ILE:HD11	1.79	0.63
1:E:2447:LYS:HG2	1:E:2450:ALA:H	1.63	0.63
1:E:3141:THR:OG1	1:E:3193:CYS:SG	2.56	0.63
1:G:224:HIS:HA	1:G:388:LEU:HA	1.81	0.63
1:G:359:TYR:HA	1:G:376:ALA:HA	1.80	0.63
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.81	0.63
1:E:3141:THR:HG1	1:E:3193:CYS:HG	1.43	0.63
1:G:633:LEU:HD13	1:G:1639:LEU:HD21	1.81	0.63
1:J:224:HIS:HA	1:J:388:LEU:HA	1.81	0.63
1:E:224:HIS:HA	1:E:388:LEU:HA	1.81	0.63
1:B:2261:SER:HA	1:B:2265:LEU:HD23	1.81	0.62
1:G:3194:LEU:HG	1:G:3279:SER:HB2	1.80	0.62
3:C:33:SER:HA	3:C:52:THR:HA	1.81	0.62
1:E:3553:LEU:HD11	1:E:3597:GLN:HG3	1.79	0.62
1:E:2261:SER:HA	1:E:2265:LEU:HD23	1.81	0.62
1:E:4090:LYS:H	1:E:4121:GLU:HB3	1.64	0.62
1:G:2447:LYS:HG2	1:G:2450:ALA:H	1.63	0.62
1:J:2376:LEU:HB2	1:J:2465:ASP:HB3	1.82	0.62
3:M:66:ARG:NH1	3:M:83:ASN:O	2.32	0.62
1:B:633:LEU:HD13	1:B:1639:LEU:HD21	1.81	0.62
1:G:2376:LEU:HB2	1:G:2465:ASP:HB3	1.82	0.62
1:J:2447:LYS:HG2	1:J:2450:ALA:H	1.63	0.62
1:J:4090:LYS:H	1:J:4121:GLU:HB3	1.64	0.62
1:E:633:LEU:HD13	1:E:1639:LEU:HD21	1.81	0.62
1:G:652:ARG:HD3	1:G:750:LEU:HB3	1.80	0.62
1:J:633:LEU:HD13	1:J:1639:LEU:HD21	1.81	0.62
1:B:3077:ALA:HA	1:B:3080:VAL:HG22	1.82	0.62
1:E:2862:LEU:HG	1:E:2864:GLY:H	1.63	0.62
1:E:294:THR:HG23	1:E:297:GLN:H	1.65	0.62
1:E:3077:ALA:HA	1:E:3080:VAL:HG22	1.82	0.62
1:G:3466:ASN:ND2	1:G:3507:THR:HG23	2.15	0.62
1:G:3842:LEU:HD23	1:G:3875:MET:HG3	1.81	0.62
1:G:3970:GLN:HE21	1:G:5004:THR:HA	1.64	0.62
1:J:3842:LEU:HD23	1:J:3875:MET:HG3	1.80	0.62
1:J:4059:LEU:HD13	1:J:4167:ALA:HB2	1.82	0.62
1:B:4059:LEU:HD13	1:B:4167:ALA:HB2	1.82	0.61
1:B:4154:VAL:O	1:B:4161:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4059:LEU:HD13	1:E:4167:ALA:HB2	1.82	0.61
1:G:2261:SER:HA	1:G:2265:LEU:HD23	1.82	0.61
1:J:359:TYR:HA	1:J:376:ALA:HA	1.80	0.61
1:B:3194:LEU:HG	1:B:3279:SER:HB2	1.80	0.61
1:E:4154:VAL:O	1:E:4161:ARG:NH2	2.33	0.61
1:J:2781:VAL:HA	1:J:2789:PRO:HB2	1.82	0.61
3:F:66:ARG:NH1	3:F:83:ASN:O	2.32	0.61
1:B:4654:ALA:O	1:B:4658:ILE:HG12	2.00	0.61
1:G:2781:VAL:HA	1:G:2789:PRO:HB2	1.83	0.61
1:G:3077:ALA:HA	1:G:3080:VAL:HG22	1.82	0.61
1:B:2376:LEU:HB2	1:B:2465:ASP:HB3	1.82	0.61
1:B:4090:LYS:H	1:B:4121:GLU:HB3	1.64	0.61
1:E:2781:VAL:HA	1:E:2789:PRO:HB2	1.82	0.61
1:G:891:TRP:HA	1:G:902:ARG:HB3	1.83	0.61
1:J:2522:LEU:HA	1:J:2526:PHE:HD2	1.66	0.61
1:B:1583:GLU:OE1	1:B:1586:ASN:ND2	2.34	0.61
1:B:2781:VAL:HA	1:B:2789:PRO:HB2	1.82	0.61
1:B:3466:ASN:ND2	1:B:3507:THR:HG23	2.15	0.61
1:E:3466:ASN:ND2	1:E:3507:THR:HG23	2.15	0.61
1:E:3987:ASP:OD2	1:J:162:LYS:NZ	2.30	0.61
1:E:4654:ALA:O	1:E:4658:ILE:HG12	2.00	0.61
1:G:4059:LEU:HD13	1:G:4167:ALA:HB2	1.82	0.61
1:J:891:TRP:HE1	1:J:904:HIS:HA	1.66	0.61
1:E:3097:GLU:OE1	1:E:3167:ARG:NH1	2.34	0.61
1:J:3466:ASN:ND2	1:J:3507:THR:HG23	2.15	0.61
3:C:66:ARG:NH1	3:C:83:ASN:O	2.32	0.61
1:B:891:TRP:HA	1:B:902:ARG:HB3	1.83	0.61
1:E:2376:LEU:HB2	1:E:2465:ASP:HB3	1.82	0.61
1:G:2522:LEU:HA	1:G:2526:PHE:HD2	1.66	0.61
2:H:42:ARG:HB3	2:H:44:LYS:HE2	1.83	0.61
1:B:182:LEU:HD11	1:B:189:LEU:HB3	1.83	0.61
1:B:294:THR:HG23	1:B:297:GLN:H	1.65	0.61
1:B:1024:TYR:HA	1:B:1027:LEU:HD12	1.83	0.61
1:G:4090:LYS:H	1:G:4121:GLU:HB3	1.64	0.61
1:J:182:LEU:HD11	1:J:189:LEU:HB3	1.83	0.61
1:B:359:TYR:HA	1:B:376:ALA:HA	1.83	0.61
1:B:3539:ARG:HA	1:B:3542:LEU:HB2	1.83	0.61
1:G:182:LEU:HD11	1:G:189:LEU:HB3	1.83	0.61
1:G:2615:ARG:HG3	1:G:2664:PHE:HB3	1.83	0.61
1:G:3537:LYS:HB3	1:G:3604:TYR:CE1	2.36	0.61
1:J:223:PHE:O	1:J:389:PHE:N	2.21	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:246:TYR:HE1	1:J:375:LYS:HZ3	1.48	0.61
1:J:2261:SER:HA	1:J:2265:LEU:HD23	1.82	0.61
1:J:3077:ALA:HA	1:J:3080:VAL:HG22	1.82	0.61
1:B:2599:GLN:O	1:B:2603:ILE:HG12	2.01	0.60
1:E:2522:LEU:HA	1:E:2526:PHE:HD2	1.66	0.60
1:J:3539:ARG:HA	1:J:3542:LEU:HB2	1.83	0.60
2:I:42:ARG:HB3	2:I:44:LYS:HE2	1.83	0.60
1:B:2989:SER:HB2	1:B:2992:GLU:HB3	1.83	0.60
1:B:3416:VAL:HB	1:B:3516:LYS:HZ1	1.64	0.60
1:B:3441:ILE:HG22	1:B:3510:ILE:HD11	1.84	0.60
1:G:266:ARG:HH12	1:G:273:HIS:CE1	2.19	0.60
1:J:266:ARG:HH12	1:J:273:HIS:CE1	2.19	0.60
1:J:4835:LYS:O	1:J:4839:MET:HG3	2.01	0.60
1:B:399:GLN:O	1:B:403:MET:HG3	2.02	0.60
1:B:2522:LEU:HA	1:B:2526:PHE:HD2	1.66	0.60
1:E:891:TRP:HE1	1:E:904:HIS:HA	1.66	0.60
1:E:1583:GLU:OE1	1:E:1586:ASN:ND2	2.34	0.60
1:E:2989:SER:HB2	1:E:2992:GLU:HB3	1.83	0.60
1:J:3537:LYS:HB3	1:J:3604:TYR:CE1	2.36	0.60
1:E:266:ARG:HH12	1:E:273:HIS:CE1	2.20	0.60
1:E:399:GLN:O	1:E:403:MET:HG3	2.02	0.60
1:G:3539:ARG:HA	1:G:3542:LEU:HB2	1.83	0.60
1:J:294:THR:HG23	1:J:297:GLN:H	1.66	0.60
1:J:3201:MET:SD	1:J:3203:VAL:HG12	2.42	0.60
1:J:3970:GLN:HE21	1:J:5004:THR:HA	1.65	0.60
2:A:42:ARG:HB3	2:A:44:LYS:HE2	1.83	0.60
1:B:2638:LYS:HB2	1:B:2639:MET:HE1	1.83	0.60
1:E:3441:ILE:HG22	1:E:3510:ILE:HD11	1.83	0.60
1:G:399:GLN:O	1:G:403:MET:HG3	2.02	0.60
1:G:676:THR:HG21	1:G:1633:PRO:HB3	1.84	0.60
1:G:1024:TYR:HA	1:G:1027:LEU:HD12	1.83	0.60
1:J:2599:GLN:O	1:J:2603:ILE:HG12	2.01	0.60
1:J:2989:SER:HB2	1:J:2992:GLU:HB3	1.83	0.60
1:B:891:TRP:HE1	1:B:904:HIS:HA	1.66	0.60
1:E:1024:TYR:HA	1:E:1027:LEU:HD12	1.83	0.60
1:G:4835:LYS:O	1:G:4839:MET:HG3	2.01	0.60
1:J:891:TRP:HA	1:J:902:ARG:HB3	1.83	0.60
1:J:3097:GLU:OE1	1:J:3167:ARG:NH1	2.34	0.60
1:J:4767:TRP:HE1	1:J:4771:ILE:HD11	1.67	0.60
1:B:4835:LYS:O	1:B:4839:MET:HG3	2.01	0.60
1:E:4835:LYS:O	1:E:4839:MET:HG3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:TYR:HE1	1:G:375:LYS:HZ3	1.49	0.60
1:G:294:THR:HG23	1:G:297:GLN:H	1.66	0.60
1:G:2989:SER:HB2	1:G:2992:GLU:HB3	1.83	0.60
1:G:3201:MET:SD	1:G:3203:VAL:HG12	2.42	0.60
1:G:4654:ALA:O	1:G:4658:ILE:HG12	2.00	0.60
1:J:365:LYS:HE2	1:J:369:LEU:HD21	1.83	0.60
1:J:1583:GLU:OE1	1:J:1586:ASN:ND2	2.34	0.60
1:J:3441:ILE:HG22	1:J:3510:ILE:HD11	1.84	0.60
1:B:266:ARG:HH12	1:B:273:HIS:CE1	2.19	0.60
1:B:374:LYS:O	1:B:375:LYS:C	2.40	0.60
1:B:3263:TYR:HA	1:B:3270:ILE:HG13	1.84	0.60
1:B:3537:LYS:HB3	1:B:3604:TYR:CE1	2.36	0.60
1:E:355:LEU:HD13	1:E:378:LEU:O	2.02	0.60
1:E:3537:LYS:HB3	1:E:3604:TYR:CE1	2.36	0.60
1:E:3539:ARG:HA	1:E:3542:LEU:HB2	1.83	0.60
1:G:900:ASN:ND2	3:M:61:ASP:OD1	2.34	0.60
1:G:2273:LEU:HD23	1:G:2330:ARG:HB3	1.84	0.60
1:G:2599:GLN:O	1:G:2603:ILE:HG12	2.01	0.60
1:G:3263:TYR:HA	1:G:3270:ILE:HG13	1.84	0.60
1:G:4154:VAL:O	1:G:4161:ARG:NH2	2.33	0.60
1:G:4767:TRP:HE1	1:G:4771:ILE:HD11	1.67	0.60
2:D:42:ARG:HB3	2:D:44:LYS:HE2	1.83	0.60
1:E:247:TYR:CD2	1:E:372:LEU:HB3	2.37	0.60
1:E:891:TRP:HA	1:E:902:ARG:HB3	1.83	0.60
1:E:2615:ARG:HG3	1:E:2664:PHE:HB3	1.83	0.60
1:E:4767:TRP:HE1	1:E:4771:ILE:HD11	1.67	0.60
1:G:365:LYS:HE2	1:G:369:LEU:HD21	1.84	0.60
1:G:3441:ILE:HG22	1:G:3510:ILE:HD11	1.83	0.60
1:J:2376:LEU:O	1:J:2380:ILE:HG12	2.02	0.60
1:J:4654:ALA:O	1:J:4658:ILE:HG12	2.00	0.60
1:B:676:THR:HG21	1:B:1633:PRO:HB3	1.84	0.60
1:E:182:LEU:HD11	1:E:189:LEU:HB3	1.83	0.60
1:E:676:THR:HG21	1:E:1633:PRO:HB3	1.84	0.60
1:E:3201:MET:SD	1:E:3203:VAL:HG12	2.42	0.60
1:G:1583:GLU:OE1	1:G:1586:ASN:ND2	2.34	0.60
1:G:3097:GLU:OE1	1:G:3167:ARG:NH1	2.34	0.60
1:G:3339:ALA:HB2	1:G:3407:ALA:HA	1.84	0.60
1:B:3097:GLU:OE1	1:B:3167:ARG:NH1	2.34	0.59
1:E:2599:GLN:O	1:E:2603:ILE:HG12	2.01	0.59
1:E:3970:GLN:HE21	1:E:5004:THR:HA	1.66	0.59
1:J:399:GLN:O	1:J:403:MET:HG3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4154:VAL:O	1:J:4161:ARG:NH2	2.33	0.59
1:J:3263:TYR:HA	1:J:3270:ILE:HG13	1.84	0.59
1:B:2615:ARG:HG3	1:B:2664:PHE:HB3	1.83	0.59
1:B:4767:TRP:HE1	1:B:4771:ILE:HD11	1.67	0.59
1:G:891:TRP:HE1	1:G:904:HIS:HA	1.66	0.59
1:E:972:LEU:HB2	1:E:1044:ARG:HE	1.67	0.59
1:E:3263:TYR:HA	1:E:3270:ILE:HG13	1.84	0.59
1:J:2273:LEU:HD23	1:J:2330:ARG:HB3	1.84	0.59
1:J:1447:CYS:HB3	1:J:1555:LEU:HB3	1.84	0.59
1:B:4091:LYS:O	1:B:4095:LYS:HG2	2.03	0.59
1:J:1024:TYR:HA	1:J:1027:LEU:HD12	1.83	0.59
1:J:2615:ARG:HG3	1:J:2664:PHE:HB3	1.83	0.59
1:J:2961:GLN:HA	1:J:2964:LEU:HD12	1.85	0.59
1:B:247:TYR:HD2	1:B:372:LEU:HB3	1.68	0.59
1:B:2961:GLN:HA	1:B:2964:LEU:HD12	1.85	0.59
1:B:3201:MET:SD	1:B:3203:VAL:HG12	2.42	0.59
1:G:2376:LEU:O	1:G:2380:ILE:HG12	2.02	0.59
1:B:972:LEU:HB2	1:B:1044:ARG:HE	1.67	0.59
1:E:224:HIS:NE2	1:E:230:CYS:SG	2.76	0.59
1:E:365:LYS:HE2	1:E:369:LEU:HD21	1.83	0.59
1:G:2961:GLN:HA	1:G:2964:LEU:HD12	1.85	0.59
1:J:676:THR:HG21	1:J:1633:PRO:HB3	1.84	0.59
1:J:1423:ASP:OD2	1:J:1425:GLU:HG2	2.03	0.59
2:D:90:VAL:HG12	2:D:91:ILE:HG13	1.85	0.59
1:B:3339:ALA:HB2	1:B:3407:ALA:HA	1.84	0.59
1:E:2376:LEU:O	1:E:2380:ILE:HG12	2.02	0.59
1:G:985:VAL:HG22	1:G:1043:VAL:HG21	1.85	0.59
1:G:3537:LYS:HA	1:G:3540:TYR:HD2	1.68	0.59
1:J:3331:GLU:HG3	1:J:3334:TRP:HB3	1.85	0.59
1:B:2273:LEU:HD23	1:B:2330:ARG:HB3	1.84	0.58
1:E:2961:GLN:HA	1:E:2964:LEU:HD12	1.85	0.58
1:B:1447:CYS:HB3	1:B:1555:LEU:HB3	1.84	0.58
1:E:2736:ASP:OD1	1:E:2736:ASP:N	2.37	0.58
1:E:3331:GLU:HG3	1:E:3334:TRP:HB3	1.85	0.58
1:E:3537:LYS:HA	1:E:3540:TYR:HD2	1.68	0.58
3:M:33:SER:HA	3:M:52:THR:HA	1.84	0.58
1:B:229:GLU:HG2	1:B:252:VAL:HG13	1.85	0.58
1:E:1095:VAL:HB	1:E:1199:VAL:HG23	1.85	0.58
1:E:1423:ASP:OD2	1:E:1425:GLU:HG2	2.03	0.58
1:E:2273:LEU:HD23	1:E:2330:ARG:HB3	1.84	0.58
1:G:972:LEU:HB2	1:G:1044:ARG:HE	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:224:HIS:NE2	1:J:230:CYS:SG	2.76	0.58
1:J:1095:VAL:HB	1:J:1199:VAL:HG23	1.86	0.58
2:A:90:VAL:HG12	2:A:91:ILE:HG13	1.85	0.58
1:B:2376:LEU:O	1:B:2380:ILE:HG12	2.02	0.58
1:G:1780:PRO:O	2:H:42:ARG:NH1	2.36	0.58
1:J:985:VAL:HG22	1:J:1043:VAL:HG21	1.85	0.58
1:E:3230:LEU:HG	1:E:3232:LEU:HG	1.86	0.58
1:E:3360:PRO:O	1:E:3364:ARG:HG2	2.04	0.58
1:G:229:GLU:HG2	1:G:252:VAL:HG13	1.85	0.58
1:G:1447:CYS:HB3	1:G:1555:LEU:HB3	1.84	0.58
1:B:208:CYS:HB3	1:B:272:SER:HB3	1.86	0.58
1:B:1095:VAL:HB	1:B:1199:VAL:HG23	1.86	0.58
1:B:3230:LEU:HG	1:B:3232:LEU:HG	1.86	0.58
1:E:1447:CYS:HB3	1:E:1555:LEU:HB3	1.84	0.58
1:E:2310:CYS:HB3	1:E:2313:LEU:HG	1.86	0.58
1:E:3339:ALA:HB2	1:E:3407:ALA:HA	1.84	0.58
1:E:4091:LYS:O	1:E:4095:LYS:HG2	2.03	0.58
1:G:1423:ASP:OD2	1:G:1425:GLU:HG2	2.03	0.58
3:K:66:ARG:NH1	3:K:83:ASN:O	2.32	0.58
1:B:3360:PRO:O	1:B:3364:ARG:HG2	2.04	0.58
1:G:1095:VAL:HB	1:G:1199:VAL:HG23	1.86	0.58
1:G:4091:LYS:O	1:G:4095:LYS:HG2	2.03	0.58
2:I:90:VAL:HG12	2:I:91:ILE:HG13	1.85	0.58
3:C:4:LEU:HD21	3:C:97:ALA:HB2	1.86	0.58
3:K:4:LEU:HD21	3:K:97:ALA:HB2	1.86	0.58
1:B:224:HIS:NE2	1:B:230:CYS:SG	2.76	0.58
1:B:231:LEU:HA	1:B:245:VAL:HB	1.86	0.58
1:B:985:VAL:HG22	1:B:1043:VAL:HG21	1.85	0.58
1:E:1448:VAL:HG12	1:E:1554:VAL:HG23	1.86	0.58
1:E:3051:ARG:HH21	1:E:3098:SER:HB3	1.69	0.58
1:J:972:LEU:HB2	1:J:1044:ARG:HE	1.67	0.58
1:J:2175:GLU:O	1:J:2179:ILE:HG12	2.03	0.58
1:J:3246:LEU:HD23	1:J:3246:LEU:H	1.69	0.58
1:B:1423:ASP:OD2	1:B:1425:GLU:HG2	2.03	0.58
1:B:2418:LEU:O	1:B:2422:ILE:HG12	2.04	0.58
1:B:2736:ASP:OD1	1:B:2736:ASP:N	2.37	0.58
1:B:3331:GLU:HG3	1:B:3334:TRP:HB3	1.86	0.58
1:B:3537:LYS:HA	1:B:3540:TYR:HD2	1.68	0.58
1:E:2418:LEU:O	1:E:2422:ILE:HG12	2.04	0.58
1:G:162:LYS:NZ	1:J:3987:ASP:OD2	2.33	0.58
1:G:224:HIS:NE2	1:G:230:CYS:SG	2.76	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2310:CYS:HB3	1:G:2313:LEU:HG	1.86	0.58
1:G:2418:LEU:O	1:G:2422:ILE:HG12	2.04	0.58
1:G:3230:LEU:HG	1:G:3232:LEU:HG	1.86	0.58
1:J:3360:PRO:O	1:J:3364:ARG:HG2	2.04	0.58
3:M:4:LEU:HD21	3:M:97:ALA:HB2	1.86	0.58
1:B:23:GLN:HG2	1:B:36:CYS:HB3	1.86	0.58
1:B:2175:GLU:O	1:B:2179:ILE:HG12	2.03	0.58
1:B:2310:CYS:HB3	1:B:2313:LEU:HG	1.86	0.58
1:B:2476:ILE:HD11	1:B:2536:LEU:HD21	1.86	0.58
1:E:2534:ALA:HB1	1:E:2588:ARG:HD2	1.86	0.58
1:G:2476:ILE:HD11	1:G:2536:LEU:HD21	1.86	0.58
1:J:3051:ARG:HH21	1:J:3098:SER:HB3	1.69	0.58
1:J:3230:LEU:HG	1:J:3232:LEU:HG	1.86	0.58
2:H:90:VAL:HG12	2:H:91:ILE:HG13	1.85	0.58
1:G:2534:ALA:HB1	1:G:2588:ARG:HD2	1.86	0.57
1:G:3246:LEU:H	1:G:3246:LEU:HD23	1.69	0.57
1:J:2310:CYS:HB3	1:J:2313:LEU:HG	1.86	0.57
1:B:2182:ILE:O	1:B:2186:MET:HG2	2.05	0.57
1:E:2175:GLU:O	1:E:2179:ILE:HG12	2.04	0.57
1:E:2182:ILE:O	1:E:2186:MET:HG2	2.05	0.57
1:E:3205:PHE:HE2	1:E:3243:ILE:HG21	1.69	0.57
1:E:3326:ASN:HB3	1:E:3329:ILE:HB	1.86	0.57
1:E:3540:TYR:CE2	1:E:3549:VAL:HG11	2.40	0.57
1:J:3205:PHE:HE2	1:J:3243:ILE:HG21	1.69	0.57
1:E:208:CYS:HB3	1:E:272:SER:HB3	1.86	0.57
1:E:231:LEU:HA	1:E:245:VAL:HB	1.85	0.57
1:E:985:VAL:HG22	1:E:1043:VAL:HG21	1.85	0.57
1:G:2736:ASP:OD1	1:G:2736:ASP:N	2.36	0.57
1:G:3331:GLU:HG3	1:G:3334:TRP:HB3	1.85	0.57
1:G:3540:TYR:CE2	1:G:3549:VAL:HG11	2.39	0.57
1:J:3339:ALA:HB2	1:J:3407:ALA:HA	1.84	0.57
1:J:3537:LYS:HA	1:J:3540:TYR:HD2	1.68	0.57
1:J:4091:LYS:O	1:J:4095:LYS:HG2	2.03	0.57
3:M:30:SER:HB3	3:M:99:ARG:HB3	1.87	0.57
1:B:2591:ARG:HH12	1:B:2637:ALA:HA	1.70	0.57
1:E:4056:GLU:HG2	1:E:4166:LEU:HD13	1.86	0.57
1:G:208:CYS:HB3	1:G:272:SER:HB3	1.86	0.57
1:J:1780:PRO:O	2:I:42:ARG:NH1	2.38	0.57
1:E:229:GLU:HG2	1:E:252:VAL:HG13	1.85	0.57
1:J:23:GLN:HG2	1:J:36:CYS:HB3	1.86	0.57
1:J:2534:ALA:HB1	1:J:2588:ARG:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2382:GLU:HA	1:B:2385:ARG:HE	1.70	0.57
1:B:3540:TYR:CE2	1:B:3549:VAL:HG11	2.40	0.57
1:B:4072:VAL:HG23	1:B:4125:PHE:HE2	1.70	0.57
1:G:3360:PRO:O	1:G:3364:ARG:HG2	2.04	0.57
1:G:4072:VAL:HG23	1:G:4125:PHE:HE2	1.70	0.57
1:J:4056:GLU:HG2	1:J:4166:LEU:HD13	1.86	0.57
3:C:30:SER:HB3	3:C:99:ARG:HB3	1.87	0.57
3:F:4:LEU:HD21	3:F:97:ALA:HB2	1.86	0.57
1:E:765:GLN:NE2	1:E:1478:ASP:O	2.38	0.57
1:G:23:GLN:HG2	1:G:36:CYS:HB3	1.86	0.57
1:G:2175:GLU:O	1:G:2179:ILE:HG12	2.04	0.57
1:G:3051:ARG:HH21	1:G:3098:SER:HB3	1.69	0.57
1:J:2476:ILE:HD11	1:J:2536:LEU:HD21	1.86	0.57
1:B:359:TYR:HB2	1:B:374:LYS:HB3	1.86	0.57
1:B:3246:LEU:HD23	1:B:3246:LEU:H	1.69	0.57
1:G:2382:GLU:HA	1:G:2385:ARG:HE	1.70	0.57
1:J:3540:TYR:CE2	1:J:3549:VAL:HG11	2.39	0.57
1:B:4053:SER:O	1:B:4057:MET:HG3	2.05	0.57
1:E:877:ASN:ND2	1:E:1045:THR:HG21	2.20	0.57
1:E:1011:GLN:OE1	1:E:1020:ARG:NH2	2.35	0.57
1:G:877:ASN:ND2	1:G:1045:THR:HG21	2.20	0.57
1:G:3450:ASN:HA	1:G:3453:ARG:HB2	1.87	0.57
1:J:231:LEU:HA	1:J:245:VAL:HB	1.86	0.57
1:J:2382:GLU:HA	1:J:2385:ARG:HE	1.70	0.57
1:J:3534:MET:SD	1:J:3537:LYS:NZ	2.75	0.57
1:J:4072:VAL:HG23	1:J:4125:PHE:HE2	1.70	0.57
1:B:224:HIS:HD2	1:B:388:LEU:HB3	1.70	0.57
1:B:1448:VAL:HG12	1:B:1554:VAL:HG23	1.86	0.57
1:G:2591:ARG:HH12	1:G:2637:ALA:HA	1.69	0.57
1:G:2755:ILE:HG23	1:G:2813:LEU:HD13	1.87	0.57
1:J:229:GLU:HG2	1:J:252:VAL:HG13	1.85	0.57
1:J:1023:PRO:HD2	1:J:1026:LEU:HD12	1.87	0.57
1:B:1225:PRO:HG2	1:B:1228:ILE:HB	1.87	0.56
1:B:3326:ASN:HB3	1:B:3329:ILE:HB	1.86	0.56
1:E:4072:VAL:HG23	1:E:4125:PHE:HE2	1.70	0.56
1:G:224:HIS:HD2	1:G:388:LEU:HB3	1.70	0.56
1:G:231:LEU:HA	1:G:245:VAL:HB	1.86	0.56
1:G:1023:PRO:HD2	1:G:1026:LEU:HD12	1.87	0.56
1:G:2175:GLU:HG3	1:G:2228:MET:HB2	1.86	0.56
1:G:4053:SER:O	1:G:4057:MET:HG3	2.05	0.56
1:B:3169:LEU:HD13	1:B:3197:LEU:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:224:HIS:HD2	1:E:388:LEU:HB3	1.70	0.56
1:E:1225:PRO:HG2	1:E:1228:ILE:HB	1.87	0.56
1:E:4053:SER:O	1:E:4057:MET:HG3	2.05	0.56
1:G:1448:VAL:HG12	1:G:1554:VAL:HG23	1.86	0.56
1:G:2182:ILE:O	1:G:2186:MET:HG2	2.05	0.56
1:J:208:CYS:HB3	1:J:272:SER:HB3	1.86	0.56
1:J:1448:VAL:HG12	1:J:1554:VAL:HG23	1.86	0.56
1:J:2175:GLU:HG3	1:J:2228:MET:HB2	1.86	0.56
1:B:3205:PHE:HE2	1:B:3243:ILE:HG21	1.69	0.56
1:E:462:GLU:HG2	1:E:3710:LEU:HD13	1.88	0.56
1:E:2591:ARG:HH12	1:E:2637:ALA:HA	1.69	0.56
1:E:3246:LEU:HD23	1:E:3246:LEU:H	1.69	0.56
1:E:3455:GLU:O	1:E:3459:VAL:HG23	2.06	0.56
1:G:765:GLN:NE2	1:G:1478:ASP:O	2.38	0.56
1:G:1225:PRO:HG2	1:G:1228:ILE:HB	1.87	0.56
1:G:3326:ASN:HB3	1:G:3329:ILE:HB	1.86	0.56
1:J:224:HIS:HD2	1:J:388:LEU:HB3	1.70	0.56
1:J:765:GLN:NE2	1:J:1478:ASP:O	2.38	0.56
1:J:1225:PRO:HG2	1:J:1228:ILE:HB	1.87	0.56
1:J:2418:LEU:O	1:J:2422:ILE:HG12	2.04	0.56
1:J:3311:HIS:O	1:J:3315:LEU:HG	2.06	0.56
1:J:3326:ASN:HB3	1:J:3329:ILE:HB	1.86	0.56
1:J:3455:GLU:O	1:J:3459:VAL:HG23	2.06	0.56
1:J:4053:SER:O	1:J:4057:MET:HG3	2.05	0.56
3:C:11:LEU:HG	3:C:124:THR:HB	1.87	0.56
1:G:3205:PHE:HE2	1:G:3243:ILE:HG21	1.69	0.56
1:J:3169:LEU:HD13	1:J:3197:LEU:HD11	1.88	0.56
3:C:104:TYR:HE1	3:C:106:PRO:HG3	1.71	0.56
1:B:16:THR:HG22	1:B:99:ARG:H	1.71	0.56
1:B:2500:ALA:HB2	1:B:2553:TYR:HD1	1.71	0.56
1:B:3051:ARG:HH21	1:B:3098:SER:HB3	1.69	0.56
1:B:3971:GLY:O	1:B:3973:CYS:N	2.39	0.56
1:E:2175:GLU:HG3	1:E:2228:MET:HB2	1.86	0.56
1:E:2476:ILE:HD11	1:E:2536:LEU:HD21	1.86	0.56
1:E:2500:ALA:HB2	1:E:2553:TYR:HD1	1.71	0.56
1:G:2500:ALA:HB2	1:G:2553:TYR:HD1	1.71	0.56
1:G:3466:ASN:HA	1:G:3469:PHE:CD2	2.41	0.56
1:G:3555:ASN:O	1:G:3558:HIS:ND1	2.37	0.56
1:J:2755:ILE:HG23	1:J:2813:LEU:HD13	1.87	0.56
1:J:3537:LYS:O	1:J:3540:TYR:HB2	2.06	0.56
1:B:4056:GLU:HG2	1:B:4166:LEU:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:20:VAL:HG11	1:E:202:MET:HG3	1.88	0.56
1:E:23:GLN:HG2	1:E:36:CYS:HB3	1.86	0.56
1:E:377:ILE:HB	1:E:379:HIS:CE1	2.40	0.56
1:E:2737:PRO:HD2	1:E:2891:LYS:HD3	1.88	0.56
1:E:3537:LYS:O	1:E:3540:TYR:HB2	2.06	0.56
1:G:3311:HIS:O	1:G:3315:LEU:HG	2.06	0.56
1:J:877:ASN:ND2	1:J:1045:THR:HG21	2.20	0.56
1:J:2591:ARG:HH12	1:J:2637:ALA:HA	1.69	0.56
1:B:2755:ILE:HG23	1:B:2813:LEU:HD13	1.87	0.56
1:E:2382:GLU:HA	1:E:2385:ARG:HE	1.70	0.56
1:E:3466:ASN:HA	1:E:3469:PHE:CD2	2.41	0.56
1:G:16:THR:HG22	1:G:99:ARG:H	1.71	0.56
1:G:3537:LYS:O	1:G:3540:TYR:HB2	2.06	0.56
3:K:30:SER:HB3	3:K:99:ARG:HB3	1.88	0.56
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.88	0.56
1:B:3450:ASN:HA	1:B:3453:ARG:HB2	1.87	0.56
1:B:3466:ASN:HA	1:B:3469:PHE:CD2	2.41	0.56
1:E:2755:ILE:HG23	1:E:2813:LEU:HD13	1.87	0.56
1:G:3757:GLU:O	1:G:3761:GLN:HG2	2.06	0.56
1:J:20:VAL:HG11	1:J:202:MET:HG3	1.88	0.56
1:J:3466:ASN:HA	1:J:3469:PHE:CD2	2.41	0.56
1:B:765:GLN:NE2	1:B:1478:ASP:O	2.38	0.56
1:B:877:ASN:ND2	1:B:1045:THR:HG21	2.20	0.56
1:B:2534:ALA:HB1	1:B:2588:ARG:HD2	1.86	0.56
1:E:2960:LEU:HB3	1:E:3038:MET:HE1	1.87	0.56
1:G:1011:GLN:OE1	1:G:1020:ARG:NH2	2.35	0.56
1:G:3003:LEU:HB2	1:G:3004:PRO:HD3	1.88	0.56
1:G:4056:GLU:HG2	1:G:4166:LEU:HD13	1.86	0.56
1:J:3355:HIS:O	1:J:3359:ILE:HD12	2.06	0.56
1:J:3450:ASN:HA	1:J:3453:ARG:HB2	1.87	0.56
1:J:3757:GLU:O	1:J:3761:GLN:HG2	2.06	0.56
1:J:3971:GLY:O	1:J:3973:CYS:N	2.39	0.56
1:E:16:THR:HG22	1:E:99:ARG:H	1.71	0.56
1:E:3311:HIS:O	1:E:3315:LEU:HG	2.06	0.56
1:E:3450:ASN:HA	1:E:3453:ARG:HB2	1.87	0.56
1:G:2271:THR:HG23	1:G:2274:ASP:H	1.71	0.56
1:G:3110:LEU:HD11	1:G:3129:LEU:HD22	1.87	0.56
1:G:3455:GLU:O	1:G:3459:VAL:HG23	2.06	0.56
1:B:1023:PRO:HD2	1:B:1026:LEU:HD12	1.87	0.55
1:E:358:THR:HG21	1:E:382:GLY:HA2	1.88	0.55
1:E:2653:LYS:HB2	1:E:2661:TRP:NE1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2653:LYS:HB2	1:J:2661:TRP:NE1	2.21	0.55
1:J:3040:THR:HA	1:J:3043:PHE:CD1	2.41	0.55
3:K:11:LEU:HG	3:K:124:THR:HB	1.87	0.55
1:B:2175:GLU:HG3	1:B:2228:MET:HB2	1.86	0.55
1:B:3040:THR:HA	1:B:3043:PHE:CD1	2.41	0.55
1:B:3455:GLU:O	1:B:3459:VAL:HG23	2.06	0.55
1:J:358:THR:HG21	1:J:382:GLY:HA2	1.88	0.55
1:J:2500:ALA:HB2	1:J:2553:TYR:HD1	1.71	0.55
1:J:3003:LEU:HB2	1:J:3004:PRO:HD3	1.88	0.55
1:J:3219:TYR:HD1	1:J:3227:ARG:HD2	1.71	0.55
3:M:11:LEU:HG	3:M:124:THR:HB	1.87	0.55
1:B:246:TYR:HB3	1:B:373:LYS:HA	1.88	0.55
1:B:462:GLU:HG2	1:B:3710:LEU:HD13	1.88	0.55
1:B:1477:GLY:HA2	1:B:1483:VAL:HA	1.88	0.55
1:B:3311:HIS:O	1:B:3315:LEU:HG	2.06	0.55
1:E:1477:GLY:HA2	1:E:1483:VAL:HA	1.89	0.55
1:E:1652:GLU:OE1	1:E:1656:ARG:NH1	2.40	0.55
1:E:2630:VAL:HG12	1:E:2682:ILE:HD11	1.88	0.55
1:E:3355:HIS:O	1:E:3359:ILE:HD12	2.06	0.55
1:G:3040:THR:HA	1:G:3043:PHE:CD1	2.41	0.55
1:G:3355:HIS:O	1:G:3359:ILE:HD12	2.06	0.55
1:J:462:GLU:HG2	1:J:3710:LEU:HD13	1.88	0.55
1:J:733:PRO:HG2	1:J:762:CYS:HB3	1.88	0.55
1:J:2182:ILE:O	1:J:2186:MET:HG2	2.05	0.55
1:E:1023:PRO:HD2	1:E:1026:LEU:HD12	1.87	0.55
1:G:358:THR:HG21	1:G:382:GLY:HA2	1.88	0.55
1:G:733:PRO:HG2	1:G:762:CYS:HB3	1.88	0.55
1:G:3971:GLY:O	1:G:3973:CYS:N	2.39	0.55
1:J:1652:GLU:OE1	1:J:1656:ARG:NH1	2.40	0.55
1:J:3040:THR:HA	1:J:3043:PHE:HD1	1.72	0.55
3:C:101:PRO:HG2	3:C:104:TYR:CE2	2.42	0.55
1:B:308:HIS:O	1:B:312:THR:OG1	2.24	0.55
1:B:909:ASN:HB2	1:B:964:GLY:H	1.71	0.55
1:B:2737:PRO:HD2	1:B:2891:LYS:HD3	1.88	0.55
1:B:3040:THR:HA	1:B:3043:PHE:HD1	1.72	0.55
1:B:3537:LYS:O	1:B:3540:TYR:HB2	2.06	0.55
1:B:3757:GLU:O	1:B:3761:GLN:HG2	2.06	0.55
1:E:2271:THR:HG23	1:E:2274:ASP:H	1.71	0.55
1:E:2368:LEU:HD11	1:E:2376:LEU:HD22	1.88	0.55
1:G:462:GLU:HG2	1:G:3710:LEU:HD13	1.88	0.55
1:J:2736:ASP:OD1	1:J:2736:ASP:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2476:ILE:HD12	1:B:2477:PRO:HD2	1.89	0.55
1:B:2653:LYS:HB2	1:B:2661:TRP:NE1	2.21	0.55
1:E:3040:THR:HA	1:E:3043:PHE:CD1	2.41	0.55
1:E:3110:LEU:HD11	1:E:3129:LEU:HD22	1.87	0.55
1:G:20:VAL:HG11	1:G:202:MET:HG3	1.88	0.55
1:G:3169:LEU:HD13	1:G:3197:LEU:HD11	1.87	0.55
1:J:909:ASN:HB2	1:J:964:GLY:H	1.71	0.55
3:F:11:LEU:HG	3:F:124:THR:HB	1.87	0.55
1:E:3219:TYR:HD1	1:E:3227:ARG:HD2	1.71	0.55
1:G:874:LEU:HA	1:G:877:ASN:ND2	2.22	0.55
1:G:2881:ASN:HA	1:G:2884:ASN:HD21	1.72	0.55
1:J:2737:PRO:HD2	1:J:2891:LYS:HD3	1.88	0.55
1:J:3467:MET:O	1:J:3471:THR:HG22	2.07	0.55
1:B:20:VAL:HG11	1:B:202:MET:HG3	1.88	0.55
1:B:3110:LEU:HD11	1:B:3129:LEU:HD22	1.87	0.55
1:E:3040:THR:HA	1:E:3043:PHE:HD1	1.72	0.55
1:G:1477:GLY:HA2	1:G:1483:VAL:HA	1.88	0.55
1:G:3040:THR:HA	1:G:3043:PHE:HD1	1.72	0.55
1:J:2630:VAL:HG12	1:J:2682:ILE:HD11	1.88	0.55
1:B:3948:LYS:NZ	1:B:4008:SER:O	2.40	0.55
1:B:4823:LEU:HD13	1:B:4826:ILE:HD11	1.88	0.55
1:E:2476:ILE:HD12	1:E:2477:PRO:HD2	1.89	0.55
1:J:3948:LYS:NZ	1:J:4008:SER:O	2.40	0.55
1:B:618:GLN:OE1	1:B:1678:ASN:ND2	2.38	0.55
1:E:2587:TYR:CZ	1:E:2591:ARG:HD2	2.42	0.55
1:E:3003:LEU:HB2	1:E:3004:PRO:HD3	1.88	0.55
1:G:2368:LEU:HD11	1:G:2376:LEU:HD22	1.88	0.55
1:G:3534:MET:SD	1:G:3537:LYS:NZ	2.75	0.55
1:J:308:HIS:O	1:J:312:THR:OG1	2.24	0.55
1:B:622:THR:HG23	1:B:626:LEU:HD12	1.89	0.54
1:B:900:ASN:ND2	3:C:61:ASP:OD1	2.37	0.54
1:B:3355:HIS:O	1:B:3359:ILE:HD12	2.06	0.54
1:E:3467:MET:O	1:E:3471:THR:HG22	2.07	0.54
1:J:3110:LEU:HD11	1:J:3129:LEU:HD22	1.87	0.54
1:J:4823:LEU:HD13	1:J:4826:ILE:HD11	1.88	0.54
3:F:30:SER:HB3	3:F:99:ARG:HB3	1.89	0.54
1:B:733:PRO:HG2	1:B:762:CYS:HB3	1.88	0.54
1:B:874:LEU:HA	1:B:877:ASN:ND2	2.22	0.54
1:E:909:ASN:HB2	1:E:964:GLY:H	1.71	0.54
1:G:2630:VAL:HG12	1:G:2682:ILE:HD11	1.88	0.54
1:G:2653:LYS:HB2	1:G:2661:TRP:NE1	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3219:TYR:HD1	1:G:3227:ARG:HD2	1.72	0.54
1:B:3313:ASN:HB3	1:B:3353:LEU:HD13	1.90	0.54
1:E:3169:LEU:HD13	1:E:3197:LEU:HD11	1.88	0.54
1:E:3971:GLY:O	1:E:3973:CYS:N	2.39	0.54
1:G:308:HIS:O	1:G:312:THR:OG1	2.24	0.54
1:G:909:ASN:HB2	1:G:964:GLY:H	1.71	0.54
1:B:358:THR:HG21	1:B:382:GLY:HA2	1.88	0.54
1:B:2271:THR:HG23	1:B:2274:ASP:H	1.71	0.54
1:B:3049:LEU:HB3	1:B:3057:PHE:HE1	1.73	0.54
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.89	0.54
1:E:2572:THR:HB	1:E:2575:ARG:HB2	1.90	0.54
1:G:3467:MET:O	1:G:3471:THR:HG22	2.07	0.54
1:J:16:THR:HG22	1:J:99:ARG:H	1.71	0.54
1:J:4780:PHE:HA	1:J:4783:ILE:HG22	1.90	0.54
3:F:100:VAL:HG13	3:F:104:TYR:O	2.07	0.54
1:B:2587:TYR:CZ	1:B:2591:ARG:HD2	2.42	0.54
1:B:2881:ASN:HA	1:B:2884:ASN:HD21	1.72	0.54
1:B:3141:THR:OG1	1:B:3193:CYS:SG	2.56	0.54
1:E:359:TYR:CE1	1:E:385:ASP:HB2	2.43	0.54
1:E:874:LEU:HA	1:E:877:ASN:ND2	2.22	0.54
1:E:1780:PRO:O	2:D:42:ARG:NH1	2.40	0.54
1:E:3757:GLU:O	1:E:3761:GLN:HG2	2.06	0.54
1:G:275:ARG:HB2	1:G:278:GLN:HB2	1.89	0.54
1:G:3948:LYS:NZ	1:G:4008:SER:O	2.40	0.54
1:J:2587:TYR:CZ	1:J:2591:ARG:HD2	2.42	0.54
1:J:2881:ASN:HA	1:J:2884:ASN:HD21	1.72	0.54
1:B:2630:VAL:HG12	1:B:2682:ILE:HD11	1.88	0.54
1:B:3139:VAL:O	1:B:3143:LEU:HG	2.07	0.54
1:B:3809:ASN:OD1	1:B:3812:VAL:HG22	2.08	0.54
1:E:3948:LYS:NZ	1:E:4008:SER:O	2.40	0.54
1:G:2587:TYR:CZ	1:G:2591:ARG:HD2	2.42	0.54
1:G:2737:PRO:HD2	1:G:2891:LYS:HD3	1.88	0.54
1:G:3313:ASN:HB3	1:G:3353:LEU:HD13	1.90	0.54
1:G:4780:PHE:HA	1:G:4783:ILE:HG22	1.90	0.54
1:G:4823:LEU:HD13	1:G:4826:ILE:HD11	1.88	0.54
1:J:275:ARG:HB2	1:J:278:GLN:HB2	1.89	0.54
1:J:924:MET:HE1	3:K:106:PRO:HB2	1.90	0.54
1:J:2271:THR:HG23	1:J:2274:ASP:H	1.71	0.54
1:J:2476:ILE:HD12	1:J:2477:PRO:HD2	1.89	0.54
3:K:100:VAL:HG13	3:K:104:TYR:O	2.07	0.54
1:B:1652:GLU:OE1	1:B:1656:ARG:NH1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3467:MET:O	1:B:3471:THR:HG22	2.07	0.54
1:E:2881:ASN:HA	1:E:2884:ASN:HD21	1.72	0.54
1:E:3809:ASN:OD1	1:E:3812:VAL:HG22	2.08	0.54
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	2.08	0.54
1:G:1652:GLU:OE1	1:G:1656:ARG:NH1	2.40	0.54
1:G:3049:LEU:HB3	1:G:3057:PHE:HE1	1.73	0.54
1:G:3285:TRP:HE1	1:G:3306:ALA:HB3	1.73	0.54
1:J:2368:LEU:HD11	1:J:2376:LEU:HD22	1.88	0.54
3:C:100:VAL:HG13	3:C:104:TYR:O	2.07	0.54
1:B:2710:LEU:HD21	1:B:2955:PHE:CE2	2.43	0.54
1:B:3219:TYR:HD1	1:B:3227:ARG:HD2	1.72	0.54
1:B:4780:PHE:HA	1:B:4783:ILE:HG22	1.90	0.54
1:E:3230:LEU:HD23	1:E:3230:LEU:H	1.73	0.54
1:E:3313:ASN:HB3	1:E:3353:LEU:HD13	1.90	0.54
1:E:4780:PHE:HA	1:E:4783:ILE:HG22	1.90	0.54
1:J:3281:LEU:HD12	1:J:3341:PHE:CD1	2.43	0.54
1:J:3566:SER:HB3	1:J:3569:LEU:HD23	1.89	0.54
1:E:3566:SER:HB3	1:E:3569:LEU:HD23	1.89	0.54
1:E:4693:GLY:O	1:E:4700:GLN:NE2	2.41	0.54
1:G:4134:GLU:HB3	1:G:4135:PRO:HD3	1.90	0.54
1:G:4693:GLY:O	1:G:4700:GLN:NE2	2.41	0.54
1:J:874:LEU:HA	1:J:877:ASN:ND2	2.22	0.54
1:J:1477:GLY:HA2	1:J:1483:VAL:HA	1.89	0.54
1:J:2325:PRO:O	1:J:2329:GLU:HG2	2.08	0.54
1:J:2638:LYS:HB2	1:J:2639:MET:HE1	1.89	0.54
1:J:3049:LEU:HB3	1:J:3057:PHE:HE1	1.73	0.54
1:B:275:ARG:HB2	1:B:278:GLN:HB2	1.89	0.54
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.73	0.54
1:B:3566:SER:HB3	1:B:3569:LEU:HD23	1.89	0.54
1:E:3139:VAL:O	1:E:3143:LEU:HG	2.07	0.54
1:E:4823:LEU:HD13	1:E:4826:ILE:HD11	1.88	0.54
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.38	0.54
1:G:3809:ASN:OD1	1:G:3812:VAL:HG22	2.08	0.54
1:B:3579:LEU:HD12	1:B:3580:PRO:HD2	1.90	0.53
1:B:4693:GLY:O	1:B:4700:GLN:NE2	2.41	0.53
1:E:3579:LEU:HD12	1:E:3580:PRO:HD2	1.90	0.53
1:G:3566:SER:HB3	1:G:3569:LEU:HD23	1.89	0.53
1:J:2710:LEU:HD21	1:J:2955:PHE:CE2	2.43	0.53
1:B:2368:LEU:HD11	1:B:2376:LEU:HD22	1.88	0.53
1:E:3049:LEU:HB3	1:E:3057:PHE:HE1	1.73	0.53
1:G:3139:VAL:O	1:G:3143:LEU:HG	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3230:LEU:HD23	1:G:3230:LEU:H	1.73	0.53
3:K:101:PRO:HG2	3:K:104:TYR:CE2	2.43	0.53
1:E:275:ARG:HB2	1:E:278:GLN:HB2	1.89	0.53
1:E:2011:HIS:O	1:E:2011:HIS:ND1	2.41	0.53
1:E:2325:PRO:O	1:E:2329:GLU:HG2	2.08	0.53
1:G:231:LEU:O	1:G:260:TRP:NE1	2.41	0.53
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.89	0.53
1:G:2710:LEU:HD21	1:G:2955:PHE:CE2	2.43	0.53
3:K:13:GLN:OE1	3:K:13:GLN:N	2.37	0.53
1:B:2238:TYR:O	1:B:2242:ILE:HG12	2.09	0.53
1:E:733:PRO:HG2	1:E:762:CYS:HB3	1.88	0.53
1:E:3281:LEU:HD12	1:E:3341:PHE:CD1	2.43	0.53
1:G:2476:ILE:HD12	1:G:2477:PRO:HD2	1.89	0.53
1:G:2572:THR:HB	1:G:2575:ARG:HB2	1.90	0.53
1:J:622:THR:HG23	1:J:626:LEU:HD12	1.89	0.53
1:J:4693:GLY:O	1:J:4700:GLN:NE2	2.41	0.53
1:B:4848:VAL:HG11	1:B:4887:MET:HG2	1.91	0.53
1:G:3281:LEU:HD12	1:G:3341:PHE:CD1	2.43	0.53
1:G:3368:ARG:HH21	1:G:3401:LEU:HD23	1.74	0.53
1:G:3768:SER:HA	1:G:3771:HIS:CE1	2.44	0.53
3:F:101:PRO:HG2	3:F:104:TYR:CE2	2.43	0.53
1:B:2572:THR:HB	1:B:2575:ARG:HB2	1.90	0.53
1:E:1676:LEU:HD22	1:E:2167:ILE:HD12	1.90	0.53
1:E:2638:LYS:HB2	1:E:2639:MET:HE1	1.89	0.53
1:E:2710:LEU:HD21	1:E:2955:PHE:CE2	2.43	0.53
1:G:2238:TYR:O	1:G:2242:ILE:HG12	2.09	0.53
1:J:2572:THR:HB	1:J:2575:ARG:HB2	1.89	0.53
1:B:2881:ASN:HA	1:B:2884:ASN:ND2	2.24	0.53
1:E:3285:TRP:HE1	1:E:3306:ALA:HB3	1.73	0.53
1:E:3411:LEU:H	1:E:3411:LEU:HD12	1.74	0.53
1:G:4848:VAL:HG11	1:G:4887:MET:HG2	1.91	0.53
1:J:2881:ASN:HA	1:J:2884:ASN:ND2	2.24	0.53
1:J:3230:LEU:HD23	1:J:3230:LEU:H	1.73	0.53
1:J:3313:ASN:HB3	1:J:3353:LEU:HD13	1.90	0.53
2:A:87:HIS:HD2	2:A:91:ILE:HD12	1.74	0.53
3:C:13:GLN:OE1	3:C:13:GLN:N	2.37	0.53
1:B:3285:TRP:HE1	1:B:3306:ALA:HB3	1.73	0.53
1:G:1676:LEU:HD22	1:G:2167:ILE:HD12	1.90	0.53
1:J:2238:TYR:O	1:J:2242:ILE:HG12	2.09	0.53
1:J:2960:LEU:HB3	1:J:3038:MET:HE1	1.90	0.53
1:J:3139:VAL:O	1:J:3143:LEU:HG	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3368:ARG:HH21	1:B:3401:LEU:HD23	1.74	0.53
1:B:3768:SER:HA	1:B:3771:HIS:CE1	2.44	0.53
1:B:4134:GLU:HB3	1:B:4135:PRO:HD3	1.90	0.53
1:E:308:HIS:O	1:E:312:THR:OG1	2.24	0.53
1:G:2325:PRO:O	1:G:2329:GLU:HG2	2.08	0.53
1:J:3411:LEU:H	1:J:3411:LEU:HD12	1.74	0.53
1:J:3555:ASN:O	1:J:3558:HIS:ND1	2.37	0.53
1:J:4134:GLU:HB3	1:J:4135:PRO:HD3	1.90	0.53
3:M:100:VAL:HG13	3:M:104:TYR:O	2.09	0.53
1:B:231:LEU:O	1:B:260:TRP:NE1	2.41	0.53
1:J:3287:ARG:HG2	1:J:3294:PRO:HD2	1.90	0.53
2:D:87:HIS:HD2	2:D:91:ILE:HD12	1.74	0.53
2:H:87:HIS:HD2	2:H:91:ILE:HD12	1.74	0.53
3:F:105:ASN:ND2	3:F:107:TRP:HD1	2.06	0.53
1:B:162:LYS:NZ	1:G:3987:ASP:OD2	2.32	0.52
1:B:369:LEU:HB2	1:B:371:VAL:HG23	1.90	0.52
1:E:2238:TYR:O	1:E:2242:ILE:HG12	2.09	0.52
1:E:2881:ASN:HA	1:E:2884:ASN:ND2	2.24	0.52
1:E:3768:SER:HA	1:E:3771:HIS:CE1	2.44	0.52
1:G:2573:GLU:OE1	1:G:2573:GLU:N	2.42	0.52
1:J:2206:THR:O	1:J:2210:VAL:HG23	2.09	0.52
1:J:3579:LEU:HD12	1:J:3580:PRO:HD2	1.90	0.52
3:M:104:TYR:HE1	3:M:106:PRO:HG3	1.74	0.52
1:B:3281:LEU:HD12	1:B:3341:PHE:CD1	2.43	0.52
1:E:979:PRO:O	1:E:983:THR:HG23	2.10	0.52
1:E:3290:GLU:HG3	1:E:3307:VAL:HG22	1.92	0.52
1:E:3691:GLU:HG2	1:E:3692:GLU:HG3	1.92	0.52
1:E:4848:VAL:HG11	1:E:4887:MET:HG2	1.91	0.52
1:G:2206:THR:O	1:G:2210:VAL:HG23	2.09	0.52
1:G:3411:LEU:H	1:G:3411:LEU:HD12	1.74	0.52
1:J:3290:GLU:HG3	1:J:3307:VAL:HG22	1.92	0.52
1:J:3369:ALA:HA	1:J:3401:LEU:HD11	1.91	0.52
1:J:3809:ASN:OD1	1:J:3812:VAL:HG22	2.08	0.52
1:J:3893:GLU:HA	1:J:3967:GLU:OE2	2.08	0.52
1:J:4848:VAL:HG11	1:J:4887:MET:HG2	1.91	0.52
1:B:3144:PHE:CD2	1:B:3197:LEU:HB3	2.44	0.52
1:B:3287:ARG:HG2	1:B:3294:PRO:HD2	1.90	0.52
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.92	0.52
1:E:2206:THR:O	1:E:2210:VAL:HG23	2.09	0.52
1:E:2968:ASP:O	1:E:2971:GLN:HG2	2.10	0.52
1:J:2011:HIS:ND1	1:J:2011:HIS:O	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3310:ASP:HA	1:J:3313:ASN:HD21	1.75	0.52
1:J:4069:LYS:HD2	1:J:4133:GLN:HG3	1.91	0.52
2:I:87:HIS:HD2	2:I:91:ILE:HD12	1.74	0.52
1:B:2206:THR:O	1:B:2210:VAL:HG23	2.09	0.52
1:B:2325:PRO:O	1:B:2329:GLU:HG2	2.08	0.52
1:B:3442:PHE:CD2	1:B:3514:LEU:HD11	2.44	0.52
1:G:3144:PHE:CD2	1:G:3197:LEU:HB3	2.45	0.52
1:J:1623:ARG:NE	1:J:1623:ARG:O	2.43	0.52
1:J:3768:SER:HA	1:J:3771:HIS:CE1	2.44	0.52
1:J:3959:LYS:HG3	1:J:4022:ASP:OD2	2.10	0.52
1:J:4090:LYS:HZ2	1:J:4112:LEU:HD23	1.73	0.52
1:B:3411:LEU:H	1:B:3411:LEU:HD12	1.74	0.52
1:B:3416:VAL:HB	1:B:3516:LYS:HZ3	1.73	0.52
1:B:4090:LYS:HZ2	1:B:4112:LEU:HD23	1.74	0.52
1:E:1623:ARG:NE	1:E:1623:ARG:O	2.43	0.52
1:E:3144:PHE:CD2	1:E:3197:LEU:HB3	2.44	0.52
1:J:2573:GLU:OE1	1:J:2573:GLU:N	2.42	0.52
1:J:3368:ARG:HH21	1:J:3401:LEU:HD23	1.74	0.52
1:B:1676:LEU:HD22	1:B:2167:ILE:HD12	1.90	0.52
1:B:2710:LEU:HD21	1:B:2955:PHE:HE2	1.75	0.52
1:B:3310:ASP:HA	1:B:3313:ASN:HD21	1.75	0.52
1:B:3691:GLU:HG2	1:B:3692:GLU:HG3	1.92	0.52
1:E:595:ARG:HH22	1:E:1642:PRO:HD2	1.75	0.52
1:E:2573:GLU:OE1	1:E:2573:GLU:N	2.42	0.52
1:E:3310:ASP:HA	1:E:3313:ASN:HD21	1.75	0.52
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.10	0.52
1:E:4069:LYS:HD2	1:E:4133:GLN:HG3	1.91	0.52
1:G:2011:HIS:O	1:G:2011:HIS:ND1	2.41	0.52
1:G:2881:ASN:HA	1:G:2884:ASN:ND2	2.24	0.52
1:G:3442:PHE:CD2	1:G:3514:LEU:HD11	2.44	0.52
1:J:979:PRO:O	1:J:983:THR:HG23	2.10	0.52
1:J:2871:LEU:HG	1:J:2927:LEU:HD11	1.91	0.52
1:J:4670:ILE:O	1:J:4674:GLU:HG3	2.10	0.52
1:G:979:PRO:O	1:G:983:THR:HG23	2.09	0.52
1:G:3310:ASP:HA	1:G:3313:ASN:HD21	1.75	0.52
1:J:1676:LEU:HD22	1:J:2167:ILE:HD12	1.90	0.52
1:J:3144:PHE:CD2	1:J:3197:LEU:HB3	2.45	0.52
1:J:3285:TRP:HE1	1:J:3306:ALA:HB3	1.73	0.52
1:J:3442:PHE:CD2	1:J:3514:LEU:HD11	2.44	0.52
1:J:3691:GLU:HG2	1:J:3692:GLU:HG3	1.92	0.52
1:E:3555:ASN:O	1:E:3558:HIS:ND1	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4134:GLU:HB3	1:E:4135:PRO:HD3	1.90	0.52
1:G:1958:LEU:HD23	1:G:2138:LEU:HD21	1.92	0.52
1:G:3287:ARG:HG2	1:G:3294:PRO:HD2	1.90	0.52
1:G:3579:LEU:HD12	1:G:3580:PRO:HD2	1.90	0.52
1:J:3137:LEU:O	1:J:3141:THR:OG1	2.28	0.52
2:I:68:LEU:HD13	2:I:106:LEU:HB2	1.92	0.52
3:C:14:ALA:HA	3:C:85:LEU:HB2	1.92	0.52
3:F:14:ALA:HA	3:F:85:LEU:HB2	1.92	0.52
3:K:14:ALA:HA	3:K:85:LEU:HB2	1.92	0.52
1:B:291:LEU:HD11	1:B:299:LEU:HD12	1.92	0.52
1:B:1958:LEU:HD23	1:B:2138:LEU:HD21	1.92	0.52
1:E:3293:PRO:HD2	1:E:3296:LEU:HD22	1.92	0.52
1:E:3442:PHE:CD2	1:E:3514:LEU:HD11	2.44	0.52
1:G:2710:LEU:HD21	1:G:2955:PHE:HE2	1.75	0.52
1:G:2968:ASP:O	1:G:2971:GLN:HG2	2.10	0.52
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	2.08	0.52
1:J:3137:LEU:HB3	1:J:3138:PRO:HD3	1.92	0.52
3:M:14:ALA:HA	3:M:85:LEU:HB2	1.92	0.52
1:B:411:TYR:HB2	1:B:486:LEU:HD21	1.92	0.52
1:B:867:LEU:HA	1:B:871:ARG:HG2	1.92	0.52
1:B:2573:GLU:OE1	1:B:2573:GLU:N	2.42	0.52
1:B:2871:LEU:HG	1:B:2927:LEU:HD11	1.91	0.52
1:B:3137:LEU:HB3	1:B:3138:PRO:HD3	1.92	0.52
1:B:3290:GLU:HG3	1:B:3307:VAL:HG22	1.92	0.52
1:E:3287:ARG:HG2	1:E:3294:PRO:HD2	1.90	0.52
1:G:2751:LEU:O	1:G:2755:ILE:HG12	2.10	0.52
1:G:4670:ILE:O	1:G:4674:GLU:HG3	2.10	0.52
1:J:595:ARG:HH22	1:J:1642:PRO:HD2	1.75	0.52
1:B:881:LEU:O	1:B:885:THR:HG23	2.10	0.51
1:B:2968:ASP:O	1:B:2971:GLN:HG2	2.10	0.51
1:E:3368:ARG:HH21	1:E:3401:LEU:HD23	1.74	0.51
1:E:4137:ARG:NH2	1:E:4196:GLU:OE2	2.43	0.51
1:E:5013:MET:HG2	1:E:5018:CYS:HB2	1.92	0.51
1:G:595:ARG:HH22	1:G:1642:PRO:HD2	1.75	0.51
1:G:2765:LYS:HZ2	1:G:2860:PRO:HA	1.74	0.51
1:G:3369:ALA:HA	1:G:3401:LEU:HD11	1.91	0.51
1:J:510:GLU:OE1	1:J:510:GLU:N	2.43	0.51
1:J:2751:LEU:O	1:J:2755:ILE:HG12	2.10	0.51
2:A:68:LEU:HD13	2:A:106:LEU:HB2	1.92	0.51
1:B:595:ARG:HH22	1:B:1642:PRO:HD2	1.75	0.51
1:B:858:THR:HG21	1:B:931:THR:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3293:PRO:HD2	1:B:3296:LEU:HD22	1.92	0.51
1:E:291:LEU:HD11	1:E:299:LEU:HD12	1.92	0.51
1:G:1623:ARG:NE	1:G:1623:ARG:O	2.43	0.51
1:G:3037:GLU:HG2	1:G:3088:VAL:HG21	1.93	0.51
1:G:3290:GLU:HG3	1:G:3307:VAL:HG22	1.92	0.51
1:J:231:LEU:O	1:J:260:TRP:NE1	2.41	0.51
1:J:618:GLN:OE1	1:J:1678:ASN:ND2	2.38	0.51
1:J:2968:ASP:O	1:J:2971:GLN:HG2	2.10	0.51
3:C:39:GLN:OE1	3:C:45:ARG:NH2	2.39	0.51
1:B:3037:GLU:HG2	1:B:3088:VAL:HG21	1.93	0.51
1:B:3369:ALA:HA	1:B:3401:LEU:HD11	1.91	0.51
1:E:2767:ALA:HB2	1:E:2791:LEU:HD11	1.92	0.51
1:G:266:ARG:HH12	1:G:273:HIS:HE1	1.58	0.51
1:G:867:LEU:HA	1:G:871:ARG:HG2	1.92	0.51
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.10	0.51
1:J:881:LEU:O	1:J:885:THR:HG23	2.10	0.51
2:H:30:LEU:HD23	2:H:36:PHE:HE2	1.75	0.51
2:H:68:LEU:HD13	2:H:106:LEU:HB2	1.92	0.51
3:M:69:ILE:HB	3:M:80:LEU:HD13	1.92	0.51
1:B:758:ARG:HH21	1:B:802:PHE:HB2	1.75	0.51
1:E:758:ARG:HH21	1:E:802:PHE:HB2	1.76	0.51
1:E:3043:PHE:HE2	1:E:3072:ALA:HA	1.76	0.51
1:G:1000:ARG:NH2	3:M:115:ASP:O	2.43	0.51
1:J:858:THR:HG21	1:J:931:THR:HG23	1.92	0.51
2:A:30:LEU:HD23	2:A:36:PHE:HE2	1.75	0.51
1:B:979:PRO:O	1:B:983:THR:HG23	2.10	0.51
1:B:4069:LYS:HD2	1:B:4133:GLN:HG3	1.91	0.51
1:E:1958:LEU:HD23	1:E:2138:LEU:HD21	1.92	0.51
1:E:2871:LEU:HG	1:E:2927:LEU:HD11	1.91	0.51
1:E:3137:LEU:O	1:E:3141:THR:OG1	2.28	0.51
1:E:3369:ALA:HA	1:E:3401:LEU:HD11	1.91	0.51
1:G:881:LEU:O	1:G:885:THR:HG23	2.10	0.51
1:G:2767:ALA:HB2	1:G:2791:LEU:HD11	1.92	0.51
1:G:3691:GLU:HG2	1:G:3692:GLU:HG3	1.92	0.51
1:J:758:ARG:HH21	1:J:802:PHE:HB2	1.76	0.51
1:J:3293:PRO:HD2	1:J:3296:LEU:HD22	1.92	0.51
1:J:4761:PRO:HB2	1:J:4766:THR:HG21	1.92	0.51
1:B:1623:ARG:NE	1:B:1623:ARG:O	2.43	0.51
1:B:2767:ALA:HB2	1:B:2791:LEU:HD11	1.92	0.51
1:E:4761:PRO:HB2	1:E:4766:THR:HG21	1.92	0.51
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3137:LEU:O	1:G:3141:THR:OG1	2.28	0.51
1:G:4137:ARG:NH2	1:G:4196:GLU:OE2	2.43	0.51
1:J:266:ARG:HH12	1:J:273:HIS:HE1	1.58	0.51
1:J:3097:GLU:HA	1:J:3167:ARG:HH12	1.76	0.51
1:J:3529:ASP:O	1:J:3533:ILE:HG13	2.11	0.51
3:M:13:GLN:OE1	3:M:13:GLN:N	2.37	0.51
1:E:25:SER:HA	1:E:34:LYS:HA	1.93	0.51
1:E:881:LEU:O	1:E:885:THR:HG23	2.10	0.51
1:E:2751:LEU:O	1:E:2755:ILE:HG12	2.10	0.51
1:E:4936:ILE:HD11	1:J:4931:ILE:HG12	1.92	0.51
1:G:291:LEU:HD11	1:G:299:LEU:HD12	1.93	0.51
1:G:2496:PRO:HG3	1:G:2550:LEU:HD23	1.93	0.51
1:G:2871:LEU:HG	1:G:2927:LEU:HD11	1.91	0.51
1:G:3195:ALA:HA	1:G:3279:SER:HA	1.93	0.51
1:J:25:SER:HA	1:J:34:LYS:HA	1.93	0.51
1:J:291:LEU:HD11	1:J:299:LEU:HD12	1.93	0.51
1:J:411:TYR:HB2	1:J:486:LEU:HD21	1.92	0.51
1:J:3043:PHE:HE2	1:J:3072:ALA:HA	1.76	0.51
1:J:3163:VAL:O	1:J:3167:ARG:HG2	2.11	0.51
1:J:5013:MET:HG2	1:J:5018:CYS:HB2	1.92	0.51
3:K:105:ASN:ND2	3:K:107:TRP:HD1	2.06	0.51
1:B:1110:ARG:NH2	1:B:1112:ASP:OD1	2.44	0.51
1:B:1249:PRO:HG2	1:B:1252:HIS:HB2	1.92	0.51
1:B:1780:PRO:O	2:A:42:ARG:NH1	2.43	0.51
1:B:2686:LEU:HG	1:B:2997:PHE:CE2	2.46	0.51
1:B:3137:LEU:O	1:B:3141:THR:OG1	2.28	0.51
1:E:3753:PHE:HZ	1:E:4718:LYS:HD3	1.76	0.51
1:G:1249:PRO:HG2	1:G:1252:HIS:HB2	1.92	0.51
1:G:3222:LYS:HB3	1:G:3226:GLU:HB2	1.93	0.51
1:G:4069:LYS:HD2	1:G:4133:GLN:HG3	1.91	0.51
1:J:1249:PRO:HG2	1:J:1252:HIS:HB2	1.92	0.51
1:J:3030:HIS:HB2	1:J:3035:GLU:HG2	1.93	0.51
1:J:3446:SER:HA	1:J:3452:LYS:HE3	1.93	0.51
2:D:68:LEU:HD13	2:D:106:LEU:HB2	1.92	0.51
1:B:25:SER:HA	1:B:34:LYS:HA	1.93	0.51
1:B:1011:GLN:OE1	1:B:1020:ARG:NH2	2.35	0.51
1:B:2495:VAL:HG12	1:B:2497:ASP:H	1.76	0.51
1:B:3753:PHE:HZ	1:B:4718:LYS:HD3	1.76	0.51
1:B:4137:ARG:NH2	1:B:4196:GLU:OE2	2.43	0.51
1:E:1110:ARG:NH2	1:E:1112:ASP:OD1	2.44	0.51
1:E:4670:ILE:O	1:E:4674:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:25:SER:HA	1:G:34:LYS:HA	1.93	0.51
1:G:866:HIS:HB3	1:G:929:LEU:HD13	1.93	0.51
1:G:2110:TYR:HB2	1:G:3694:LYS:HA	1.93	0.51
1:G:3293:PRO:HD2	1:G:3296:LEU:HD22	1.92	0.51
1:G:3753:PHE:HZ	1:G:4718:LYS:HD3	1.76	0.51
1:J:1011:GLN:OE1	1:J:1020:ARG:NH2	2.35	0.51
1:J:2710:LEU:HD21	1:J:2955:PHE:HE2	1.75	0.51
1:J:4749:GLU:HG3	1:J:4753:HIS:CE1	2.46	0.51
3:F:69:ILE:HB	3:F:80:LEU:HD13	1.92	0.51
1:B:3893:GLU:HA	1:B:3967:GLU:OE2	2.11	0.51
1:E:924:MET:HE1	3:F:106:PRO:HB2	1.93	0.51
1:E:2679:PHE:HB2	1:E:2706:ILE:HG21	1.93	0.51
1:E:3529:ASP:O	1:E:3533:ILE:HG13	2.11	0.51
1:E:4749:GLU:HG3	1:E:4753:HIS:CE1	2.46	0.51
1:G:758:ARG:HH21	1:G:802:PHE:HB2	1.75	0.51
1:G:858:THR:HG21	1:G:931:THR:HG23	1.92	0.51
1:G:1110:ARG:NH2	1:G:1112:ASP:OD1	2.44	0.51
1:G:3030:HIS:HB2	1:G:3035:GLU:HG2	1.93	0.51
1:G:5013:MET:HG2	1:G:5018:CYS:HB2	1.92	0.51
1:J:1958:LEU:HD23	1:J:2138:LEU:HD21	1.92	0.51
1:J:2496:PRO:HG3	1:J:2550:LEU:HD23	1.93	0.51
3:M:2:VAL:HG22	3:M:27:SER:H	1.76	0.51
1:B:2679:PHE:HB2	1:B:2706:ILE:HG21	1.93	0.50
1:E:858:THR:HG21	1:E:931:THR:HG23	1.93	0.50
1:J:2686:LEU:HG	1:J:2997:PHE:CE2	2.46	0.50
1:B:866:HIS:HB3	1:B:929:LEU:HD13	1.93	0.50
1:B:2751:LEU:O	1:B:2755:ILE:HG12	2.10	0.50
1:B:3097:GLU:HA	1:B:3167:ARG:HH12	1.76	0.50
1:B:4670:ILE:O	1:B:4674:GLU:HG3	2.10	0.50
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.38	0.50
1:E:867:LEU:HA	1:E:871:ARG:HG2	1.92	0.50
1:E:2686:LEU:HG	1:E:2997:PHE:CE2	2.46	0.50
1:E:2710:LEU:HD21	1:E:2955:PHE:HE2	1.75	0.50
1:E:3030:HIS:HB2	1:E:3035:GLU:HG2	1.93	0.50
1:E:3037:GLU:HG2	1:E:3088:VAL:HG21	1.93	0.50
1:G:2244:ARG:NH2	1:G:2283:ASN:OD1	2.44	0.50
1:G:4761:PRO:HB2	1:G:4766:THR:HG21	1.92	0.50
1:J:2110:TYR:HB2	1:J:3694:LYS:HA	1.93	0.50
2:I:30:LEU:HD23	2:I:36:PHE:HE2	1.75	0.50
3:C:69:ILE:HB	3:C:80:LEU:HD13	1.92	0.50
1:B:2244:ARG:NH2	1:B:2283:ASN:OD1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2495:VAL:HG12	1:E:2497:ASP:H	1.76	0.50
1:E:3097:GLU:HA	1:E:3167:ARG:HH12	1.76	0.50
1:E:3137:LEU:HB3	1:E:3138:PRO:HD3	1.92	0.50
1:E:3222:LYS:HB3	1:E:3226:GLU:HB2	1.93	0.50
1:G:657:THR:HB	1:G:1021:LEU:HD13	1.93	0.50
1:G:2495:VAL:HG12	1:G:2497:ASP:H	1.76	0.50
1:G:3446:SER:HA	1:G:3452:LYS:HE3	1.93	0.50
1:G:3604:TYR:O	1:G:3608:GLN:HG2	2.12	0.50
1:J:2767:ALA:HB2	1:J:2791:LEU:HD11	1.92	0.50
1:J:3037:GLU:HG2	1:J:3088:VAL:HG21	1.93	0.50
1:J:3354:LEU:O	1:J:3358:PHE:HD1	1.94	0.50
1:J:3604:TYR:O	1:J:3608:GLN:HG2	2.12	0.50
1:J:3753:PHE:HZ	1:J:4718:LYS:HD3	1.76	0.50
2:A:16:PRO:HB3	2:A:106:LEU:HD11	1.94	0.50
1:B:3555:ASN:O	1:B:3558:HIS:ND1	2.36	0.50
1:B:4761:PRO:HB2	1:B:4766:THR:HG21	1.92	0.50
1:E:3435:PHE:CZ	1:E:3602:VAL:HG21	2.47	0.50
1:G:3043:PHE:HE2	1:G:3072:ALA:HA	1.76	0.50
1:J:867:LEU:HA	1:J:871:ARG:HG2	1.92	0.50
1:J:2679:PHE:HB2	1:J:2706:ILE:HG21	1.93	0.50
3:M:101:PRO:HG2	3:M:104:TYR:CE2	2.46	0.50
1:B:3043:PHE:HE2	1:B:3072:ALA:HA	1.76	0.50
1:E:926:GLY:O	1:E:930:LYS:HG3	2.11	0.50
1:G:2336:ARG:HB2	1:G:2435:ARG:HD2	1.93	0.50
1:G:3219:TYR:HA	1:G:3227:ARG:HD3	1.94	0.50
1:G:4749:GLU:HG3	1:G:4753:HIS:CE1	2.46	0.50
1:J:866:HIS:HB3	1:J:929:LEU:HD13	1.93	0.50
1:J:2495:VAL:HG12	1:J:2497:ASP:H	1.76	0.50
1:J:3222:LYS:HB3	1:J:3226:GLU:HB2	1.93	0.50
2:H:16:PRO:HB3	2:H:106:LEU:HD11	1.94	0.50
3:C:105:ASN:ND2	3:C:107:TRP:HD1	2.08	0.50
3:K:69:ILE:HB	3:K:80:LEU:HD13	1.92	0.50
1:B:510:GLU:OE1	1:B:510:GLU:N	2.43	0.50
1:B:2496:PRO:HG3	1:B:2550:LEU:HD23	1.93	0.50
1:B:2970:SER:HA	1:B:2973:PHE:CE2	2.47	0.50
1:B:3529:ASP:O	1:B:3533:ILE:HG13	2.11	0.50
1:B:3547:GLU:O	1:B:3551:GLU:HG2	2.12	0.50
1:B:5013:MET:HG2	1:B:5018:CYS:HB2	1.92	0.50
1:E:231:LEU:O	1:E:260:TRP:NE1	2.41	0.50
1:E:1249:PRO:HG2	1:E:1252:HIS:HB2	1.92	0.50
1:E:3163:VAL:O	1:E:3167:ARG:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3195:ALA:HA	1:E:3279:SER:HA	1.93	0.50
1:E:3229:ILE:H	1:E:3229:ILE:HD12	1.77	0.50
1:E:3604:TYR:O	1:E:3608:GLN:HG2	2.12	0.50
1:G:2679:PHE:HB2	1:G:2706:ILE:HG21	1.93	0.50
1:G:3163:VAL:O	1:G:3167:ARG:HG2	2.11	0.50
1:B:926:GLY:O	1:B:930:LYS:HG3	2.12	0.50
1:B:3354:LEU:O	1:B:3358:PHE:HD1	1.94	0.50
1:B:3427:PRO:HD3	1:B:3579:LEU:HD21	1.94	0.50
1:E:2970:SER:HA	1:E:2973:PHE:CE2	2.47	0.50
1:E:3427:PRO:HD3	1:E:3579:LEU:HD21	1.94	0.50
1:G:436:LEU:H	1:G:436:LEU:HD12	1.77	0.50
1:G:2686:LEU:HG	1:G:2997:PHE:CE2	2.46	0.50
1:G:2960:LEU:HB3	1:G:3038:MET:CE	2.42	0.50
1:G:3097:GLU:HA	1:G:3167:ARG:HH12	1.76	0.50
1:G:3427:PRO:HD3	1:G:3579:LEU:HD21	1.94	0.50
1:G:3529:ASP:O	1:G:3533:ILE:HG13	2.10	0.50
1:J:657:THR:HB	1:J:1021:LEU:HD13	1.93	0.50
1:J:2336:ARG:HB2	1:J:2435:ARG:HD2	1.93	0.50
1:J:2388:GLU:O	1:J:2390:PRO:HD3	2.12	0.50
1:J:3195:ALA:HA	1:J:3279:SER:HA	1.93	0.50
1:J:3280:TYR:HE1	1:J:3283:ARG:HH21	1.60	0.50
2:D:30:LEU:HD23	2:D:36:PHE:HE2	1.75	0.50
1:B:2110:TYR:HB2	1:B:3694:LYS:HA	1.93	0.50
1:B:3222:LYS:HB3	1:B:3226:GLU:HB2	1.93	0.50
1:B:3229:ILE:H	1:B:3229:ILE:HD12	1.77	0.50
1:E:3333:THR:HG22	1:E:3337:ARG:CZ	2.42	0.50
1:E:4230:LYS:NZ	1:E:4231:MET:SD	2.84	0.50
1:G:3137:LEU:HB3	1:G:3138:PRO:HD3	1.92	0.50
1:J:3229:ILE:H	1:J:3229:ILE:HD12	1.77	0.50
1:J:4137:ARG:NH2	1:J:4196:GLU:OE2	2.43	0.50
3:F:2:VAL:HG22	3:F:27:SER:H	1.76	0.50
3:M:39:GLN:OE1	3:M:45:ARG:NH2	2.39	0.50
1:B:3163:VAL:O	1:B:3167:ARG:HG2	2.11	0.50
1:B:3959:LYS:HG3	1:B:4022:ASP:OD2	2.11	0.50
1:B:4749:GLU:HG3	1:B:4753:HIS:CE1	2.46	0.50
1:E:657:THR:HB	1:E:1021:LEU:HD13	1.93	0.50
1:G:926:GLY:O	1:G:930:LYS:HG3	2.11	0.50
1:G:4828:SER:O	1:G:4832:HIS:HB3	2.12	0.50
1:J:883:ALA:HA	1:J:886:ARG:HE	1.77	0.50
1:B:3219:TYR:HA	1:B:3227:ARG:HD3	1.94	0.49
1:E:794:GLY:HA3	1:E:812:HIS:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:TYR:CD1	1:G:373:LYS:HE3	2.47	0.49
1:G:2388:GLU:O	1:G:2390:PRO:HD3	2.12	0.49
1:G:2638:LYS:HB2	1:G:2639:MET:HE1	1.93	0.49
1:J:1110:ARG:NH2	1:J:1112:ASP:OD1	2.44	0.49
1:J:2454:ARG:HD2	1:J:2458:ARG:HH21	1.77	0.49
1:J:3427:PRO:HD3	1:J:3579:LEU:HD21	1.94	0.49
1:J:3435:PHE:CZ	1:J:3602:VAL:HG21	2.47	0.49
1:B:436:LEU:H	1:B:436:LEU:HD12	1.77	0.49
1:B:657:THR:HB	1:B:1021:LEU:HD13	1.94	0.49
1:B:3534:MET:SD	1:B:3537:LYS:NZ	2.75	0.49
1:B:4828:SER:O	1:B:4832:HIS:HB3	2.12	0.49
1:E:866:HIS:HB3	1:E:929:LEU:HD13	1.93	0.49
1:E:2110:TYR:HB2	1:E:3694:LYS:HA	1.93	0.49
1:G:3229:ILE:H	1:G:3229:ILE:HD12	1.77	0.49
1:G:3280:TYR:HE1	1:G:3283:ARG:HH21	1.60	0.49
1:G:3547:GLU:O	1:G:3551:GLU:HG2	2.12	0.49
1:J:4731:ILE:HG22	1:J:4732:PHE:CD2	2.48	0.49
1:B:2960:LEU:HB3	1:B:3038:MET:CE	2.42	0.49
1:B:3195:ALA:HA	1:B:3279:SER:HA	1.93	0.49
1:E:510:GLU:N	1:E:510:GLU:OE1	2.43	0.49
1:E:2496:PRO:HG3	1:E:2550:LEU:HD23	1.93	0.49
1:E:2578:MET:SD	1:E:2578:MET:N	2.86	0.49
1:G:710:ASP:OD1	1:G:711:LEU:N	2.46	0.49
1:G:883:ALA:HA	1:G:886:ARG:HE	1.77	0.49
1:G:3354:LEU:O	1:G:3358:PHE:HD1	1.94	0.49
1:G:3688:GLU:N	1:G:3688:GLU:OE1	2.46	0.49
1:G:4744:ASP:HB3	1:G:4747:SER:HB3	1.95	0.49
1:J:794:GLY:HA3	1:J:812:HIS:HB3	1.94	0.49
1:J:4828:SER:O	1:J:4832:HIS:HB3	2.12	0.49
1:B:3604:TYR:O	1:B:3608:GLN:HG2	2.11	0.49
1:B:3688:GLU:N	1:B:3688:GLU:OE1	2.46	0.49
1:B:4097:MET:SD	1:B:4108:ILE:HD12	2.53	0.49
1:B:4202:ARG:O	1:B:4206:GLU:HG2	2.12	0.49
1:E:2244:ARG:NH2	1:E:2283:ASN:OD1	2.44	0.49
1:E:3219:TYR:HA	1:E:3227:ARG:HD3	1.94	0.49
1:E:3446:SER:HA	1:E:3452:LYS:HE3	1.93	0.49
1:G:510:GLU:OE1	1:G:510:GLU:N	2.43	0.49
1:G:4097:MET:SD	1:G:4108:ILE:HD12	2.53	0.49
1:J:4202:ARG:O	1:J:4206:GLU:HG2	2.12	0.49
3:F:90:THR:HG23	3:F:124:THR:HA	1.95	0.49
3:K:2:VAL:HG22	3:K:27:SER:H	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:883:ALA:HA	1:B:886:ARG:HE	1.78	0.49
1:B:3042:LEU:HD22	1:B:3071:LEU:HD11	1.95	0.49
1:E:883:ALA:HA	1:E:886:ARG:HE	1.78	0.49
1:E:2454:ARG:HD2	1:E:2458:ARG:HH21	1.77	0.49
1:E:4097:MET:SD	1:E:4108:ILE:HD12	2.53	0.49
1:G:210:GLU:HB2	1:G:215:THR:HG22	1.95	0.49
1:G:1037:ASP:O	1:G:1041:GLN:HG2	2.12	0.49
1:G:2970:SER:HA	1:G:2973:PHE:CE2	2.47	0.49
1:G:3097:GLU:O	1:G:3167:ARG:NH2	2.44	0.49
1:J:210:GLU:HB2	1:J:215:THR:HG22	1.95	0.49
1:J:2578:MET:SD	1:J:2578:MET:N	2.86	0.49
1:J:2970:SER:HA	1:J:2973:PHE:CE2	2.47	0.49
1:J:3688:GLU:N	1:J:3688:GLU:OE1	2.45	0.49
2:D:30:LEU:HD23	2:D:36:PHE:CE2	2.48	0.49
2:I:30:LEU:HD23	2:I:36:PHE:CE2	2.48	0.49
3:C:2:VAL:HG22	3:C:27:SER:H	1.76	0.49
3:M:90:THR:HG23	3:M:124:THR:HA	1.95	0.49
1:B:2336:ARG:HB2	1:B:2435:ARG:HD2	1.93	0.49
1:B:3435:PHE:CZ	1:B:3602:VAL:HG21	2.47	0.49
1:B:3446:SER:HA	1:B:3452:LYS:HE3	1.93	0.49
1:E:3354:LEU:O	1:E:3358:PHE:HD1	1.94	0.49
1:E:3547:GLU:O	1:E:3551:GLU:HG2	2.12	0.49
1:E:4828:SER:O	1:E:4832:HIS:HB3	2.12	0.49
1:G:3333:THR:HG22	1:G:3337:ARG:CZ	2.42	0.49
1:J:371:VAL:HG12	1:J:373:LYS:H	1.78	0.49
1:J:926:GLY:O	1:J:930:LYS:HG3	2.12	0.49
1:J:1037:ASP:O	1:J:1041:GLN:HG2	2.12	0.49
1:J:3547:GLU:O	1:J:3551:GLU:HG2	2.12	0.49
3:C:90:THR:HG23	3:C:124:THR:HA	1.95	0.49
1:B:2970:SER:HA	1:B:2973:PHE:CD2	2.48	0.49
1:B:3315:LEU:HD13	1:B:3341:PHE:HE2	1.77	0.49
1:B:3333:THR:HG22	1:B:3337:ARG:CZ	2.42	0.49
1:B:4876:CYS:HA	1:B:4882:CYS:HB2	1.95	0.49
1:E:359:TYR:HA	1:E:376:ALA:HA	1.95	0.49
1:G:371:VAL:HG12	1:G:373:LYS:H	1.77	0.49
1:G:897:ARG:HD3	1:G:905:PRO:HD3	1.95	0.49
1:G:2578:MET:SD	1:G:2578:MET:N	2.86	0.49
1:G:2700:MET:CE	1:G:2701:PRO:HD3	2.43	0.49
1:J:897:ARG:HD3	1:J:905:PRO:HD3	1.95	0.49
1:J:3219:TYR:HA	1:J:3227:ARG:HD3	1.94	0.49
2:A:4:ILE:HD11	2:A:62:GLY:HA2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:90:THR:HG23	3:K:124:THR:HA	1.95	0.49
1:B:4931:ILE:HG12	1:G:4936:ILE:HD11	1.94	0.49
1:E:210:GLU:HB2	1:E:215:THR:HG22	1.95	0.49
1:E:1476:MET:HB2	1:E:1485:SER:HB2	1.95	0.49
1:E:2638:LYS:HB2	1:E:2639:MET:CE	2.43	0.49
1:E:2970:SER:HA	1:E:2973:PHE:CD2	2.48	0.49
1:G:721:LEU:HG	1:G:730:VAL:HG21	1.95	0.49
1:G:4731:ILE:HG22	1:G:4732:PHE:CD2	2.48	0.49
1:G:4931:ILE:HG12	1:J:4936:ILE:HD11	1.94	0.49
1:J:27:THR:HG23	1:J:32:GLN:HG3	1.95	0.49
1:J:246:TYR:CD1	1:J:373:LYS:HE3	2.48	0.49
1:J:1042:ALA:O	1:J:1046:LEU:HG	2.13	0.49
1:J:2638:LYS:HB2	1:J:2639:MET:CE	2.43	0.49
2:I:16:PRO:HB3	2:I:106:LEU:HD11	1.94	0.49
1:B:246:TYR:CD1	1:B:373:LYS:HE3	2.48	0.49
1:B:2454:ARG:HD2	1:B:2458:ARG:HH21	1.77	0.49
1:B:2578:MET:SD	1:B:2578:MET:N	2.86	0.49
1:B:2765:LYS:HZ2	1:B:2860:PRO:HA	1.78	0.49
1:B:4744:ASP:HB3	1:B:4747:SER:HB3	1.95	0.49
1:E:359:TYR:HE1	1:E:385:ASP:HB2	1.77	0.49
1:E:783:PHE:HB2	1:E:787:VAL:HG11	1.94	0.49
1:E:1042:ALA:O	1:E:1046:LEU:HG	2.13	0.49
1:E:2336:ARG:HB2	1:E:2435:ARG:HD2	1.93	0.49
1:G:27:THR:HG23	1:G:32:GLN:HG3	1.95	0.49
1:G:2638:LYS:HB2	1:G:2639:MET:CE	2.43	0.49
1:G:4202:ARG:O	1:G:4206:GLU:HG2	2.12	0.49
1:J:2244:ARG:NH2	1:J:2283:ASN:OD1	2.44	0.49
1:J:2991:HIS:O	1:J:2995:ILE:HG13	2.13	0.49
1:B:27:THR:HG23	1:B:32:GLN:HG3	1.95	0.49
1:B:710:ASP:OD1	1:B:711:LEU:N	2.46	0.49
1:B:1037:ASP:O	1:B:1041:GLN:HG2	2.12	0.49
1:B:2377:LEU:O	1:B:2381:GLU:HG2	2.13	0.49
1:B:3030:HIS:HB2	1:B:3035:GLU:HG2	1.93	0.49
1:B:3443:ILE:O	1:B:3447:LYS:HG3	2.13	0.49
1:B:4936:ILE:HD11	1:E:4931:ILE:HG12	1.93	0.49
1:E:222:LEU:O	1:E:223:PHE:HD1	1.96	0.49
1:E:2325:PRO:HB2	1:E:2421:ALA:HB1	1.95	0.49
1:E:2388:GLU:O	1:E:2390:PRO:HD3	2.12	0.49
1:E:4731:ILE:HG22	1:E:4732:PHE:CD2	2.48	0.49
1:G:251:ALA:O	1:G:255:HIS:ND1	2.40	0.49
1:G:783:PHE:HB2	1:G:787:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1690:ASP:OD2	1:G:1693:GLN:NE2	2.46	0.49
1:G:4696:ASP:O	1:G:4700:GLN:HG2	2.13	0.49
1:J:251:ALA:O	1:J:255:HIS:ND1	2.40	0.49
1:J:747:CYS:SG	1:J:756:SER:HB2	2.53	0.49
1:J:3315:LEU:HD13	1:J:3341:PHE:HE2	1.77	0.49
2:I:4:ILE:HD11	2:I:62:GLY:HA2	1.95	0.49
1:B:210:GLU:HB2	1:B:215:THR:HG22	1.95	0.48
1:B:2325:PRO:HB2	1:B:2421:ALA:HB1	1.95	0.48
1:B:3183:VAL:O	1:B:3187:ARG:HG3	2.13	0.48
1:B:4235:VAL:HG11	1:B:5019:TRP:CH2	2.48	0.48
1:E:436:LEU:H	1:E:436:LEU:HD12	1.77	0.48
1:E:863:LEU:HD21	1:E:939:VAL:HG21	1.95	0.48
1:E:3183:VAL:O	1:E:3187:ARG:HG3	2.13	0.48
1:E:3280:TYR:HE1	1:E:3283:ARG:HH21	1.60	0.48
1:E:3437:MET:O	1:E:3441:ILE:HG13	2.13	0.48
1:E:4090:LYS:HZ2	1:E:4112:LEU:HD23	1.77	0.48
1:G:2325:PRO:HB2	1:G:2421:ALA:HB1	1.95	0.48
1:G:3435:PHE:CZ	1:G:3602:VAL:HG21	2.47	0.48
1:G:3437:MET:O	1:G:3441:ILE:HG13	2.13	0.48
1:J:222:LEU:O	1:J:223:PHE:HD1	1.96	0.48
1:J:863:LEU:HD21	1:J:939:VAL:HG21	1.95	0.48
1:J:3534:MET:O	1:J:3538:THR:HG23	2.13	0.48
1:J:4104:THR:O	1:J:4108:ILE:HG12	2.13	0.48
2:D:4:ILE:HD11	2:D:62:GLY:HA2	1.95	0.48
1:B:897:ARG:HD3	1:B:905:PRO:HD3	1.95	0.48
1:B:2504:LEU:O	1:B:2508:ARG:HG2	2.14	0.48
1:B:2700:MET:CE	1:B:2701:PRO:HD3	2.43	0.48
1:B:2960:LEU:HB3	1:B:3038:MET:HE1	1.94	0.48
1:B:4731:ILE:HG22	1:B:4732:PHE:CD2	2.48	0.48
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.13	0.48
1:E:27:THR:HG23	1:E:32:GLN:HG3	1.95	0.48
1:E:2991:HIS:O	1:E:2995:ILE:HG13	2.13	0.48
1:E:4235:VAL:HG11	1:E:5019:TRP:CH2	2.48	0.48
1:G:794:GLY:HA3	1:G:812:HIS:HB3	1.94	0.48
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.13	0.48
1:J:436:LEU:H	1:J:436:LEU:HD12	1.77	0.48
1:J:728:ARG:HE	1:J:1487:LEU:HD12	1.78	0.48
1:J:2960:LEU:HB3	1:J:3038:MET:CE	2.42	0.48
2:D:16:PRO:HB3	2:D:106:LEU:HD11	1.94	0.48
1:B:230:CYS:SG	1:B:231:LEU:HG	2.53	0.48
1:B:728:ARG:HE	1:B:1487:LEU:HD12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:747:CYS:SG	1:B:756:SER:HB2	2.53	0.48
1:B:1042:ALA:O	1:B:1046:LEU:HG	2.13	0.48
1:B:2388:GLU:O	1:B:2390:PRO:HD3	2.12	0.48
1:E:747:CYS:SG	1:E:756:SER:HB2	2.53	0.48
1:E:2294:ASP:HA	1:E:2297:LYS:HE2	1.95	0.48
1:E:2504:LEU:O	1:E:2508:ARG:HG2	2.14	0.48
1:E:2700:MET:CE	1:E:2701:PRO:HD3	2.43	0.48
1:E:3206:LEU:H	1:E:3206:LEU:HD12	1.79	0.48
1:G:230:CYS:SG	1:G:231:LEU:HG	2.54	0.48
1:G:1476:MET:HB2	1:G:1485:SER:HB2	1.95	0.48
1:G:2689:LYS:HG2	1:G:2690:LYS:H	1.78	0.48
1:G:3315:LEU:HD13	1:G:3341:PHE:HE2	1.77	0.48
1:G:4876:CYS:HA	1:G:4882:CYS:HB2	1.95	0.48
1:G:4943:LEU:O	1:G:4947:GLN:HG2	2.14	0.48
1:J:2700:MET:CE	1:J:2701:PRO:HD3	2.43	0.48
1:J:3042:LEU:HD22	1:J:3071:LEU:HD11	1.95	0.48
1:J:3206:LEU:HD12	1:J:3206:LEU:H	1.79	0.48
1:J:4696:ASP:O	1:J:4700:GLN:HG2	2.13	0.48
1:J:4744:ASP:HB3	1:J:4747:SER:HB3	1.95	0.48
2:H:4:ILE:HD11	2:H:62:GLY:HA2	1.95	0.48
3:F:18:LEU:HD21	3:F:85:LEU:HD11	1.95	0.48
3:K:18:LEU:HD21	3:K:85:LEU:HD11	1.96	0.48
1:B:252:VAL:HA	1:B:255:HIS:HB2	1.96	0.48
1:B:266:ARG:HH12	1:B:273:HIS:HE1	1.58	0.48
1:B:1423:ASP:O	1:B:1427:ILE:HG12	2.14	0.48
1:B:1973:GLN:NE2	1:B:2005:GLN:OE1	2.47	0.48
1:B:3989:VAL:HG13	1:B:4023:MET:HE2	1.95	0.48
1:E:1037:ASP:O	1:E:1041:GLN:HG2	2.12	0.48
1:E:1423:ASP:O	1:E:1427:ILE:HG12	2.14	0.48
1:E:2960:LEU:HB3	1:E:3038:MET:CE	2.42	0.48
1:E:3443:ILE:O	1:E:3447:LYS:HG3	2.13	0.48
1:E:3688:GLU:OE1	1:E:3688:GLU:N	2.45	0.48
1:E:4696:ASP:O	1:E:4700:GLN:HG2	2.13	0.48
1:G:470:SER:HA	1:G:473:ASN:HD21	1.77	0.48
1:G:747:CYS:SG	1:G:756:SER:HB2	2.53	0.48
1:G:863:LEU:HD21	1:G:939:VAL:HG21	1.95	0.48
1:G:1042:ALA:O	1:G:1046:LEU:HG	2.13	0.48
1:G:3042:LEU:HD22	1:G:3071:LEU:HD11	1.95	0.48
1:J:252:VAL:HA	1:J:255:HIS:HB2	1.96	0.48
1:J:1786:LEU:HD12	1:J:1787:PRO:HD2	1.96	0.48
1:J:2377:LEU:O	1:J:2381:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4097:MET:SD	1:J:4108:ILE:HD12	2.53	0.48
1:B:213:TYR:HD1	1:B:340:LYS:HA	1.79	0.48
1:B:783:PHE:HB2	1:B:787:VAL:HG11	1.95	0.48
1:B:1476:MET:HB2	1:B:1485:SER:HB2	1.95	0.48
1:B:2689:LYS:HG2	1:B:2690:LYS:H	1.78	0.48
1:E:230:CYS:SG	1:E:231:LEU:HG	2.53	0.48
1:E:299:LEU:CD2	1:E:378:LEU:HG	2.44	0.48
1:E:1786:LEU:HD12	1:E:1787:PRO:HD2	1.96	0.48
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.94	0.48
1:E:4202:ARG:O	1:E:4206:GLU:HG2	2.12	0.48
1:G:1423:ASP:O	1:G:1427:ILE:HG12	2.14	0.48
1:G:1973:GLN:NE2	1:G:2005:GLN:OE1	2.47	0.48
1:G:3443:ILE:O	1:G:3447:LYS:HG3	2.13	0.48
1:J:2325:PRO:HB2	1:J:2421:ALA:HB1	1.95	0.48
1:J:3097:GLU:O	1:J:3167:ARG:NH2	2.44	0.48
1:J:4109:GLN:HA	1:J:4112:LEU:HD12	1.96	0.48
1:B:470:SER:HA	1:B:473:ASN:HD21	1.77	0.48
1:B:721:LEU:HG	1:B:730:VAL:HG21	1.95	0.48
1:B:794:GLY:HA3	1:B:812:HIS:HB3	1.94	0.48
1:B:993:HIS:CE1	1:B:1027:LEU:HD11	2.49	0.48
1:B:2328:GLY:HA3	1:B:2425:PHE:HE2	1.79	0.48
1:B:2638:LYS:HB2	1:B:2639:MET:CE	2.43	0.48
1:B:2991:HIS:O	1:B:2995:ILE:HG13	2.13	0.48
1:B:3280:TYR:HE1	1:B:3283:ARG:HH21	1.60	0.48
1:B:3437:MET:O	1:B:3441:ILE:HG13	2.13	0.48
1:B:4696:ASP:O	1:B:4700:GLN:HG2	2.13	0.48
1:E:911:HIS:HB2	1:E:918:ARG:NE	2.29	0.48
1:E:2377:LEU:O	1:E:2381:GLU:HG2	2.13	0.48
1:E:3534:MET:O	1:E:3538:THR:HG23	2.13	0.48
1:G:222:LEU:O	1:G:223:PHE:HD1	1.96	0.48
1:G:252:VAL:HA	1:G:255:HIS:HB2	1.96	0.48
1:G:374:LYS:O	1:G:375:LYS:C	2.51	0.48
1:G:4235:VAL:HG11	1:G:5019:TRP:CH2	2.48	0.48
1:J:783:PHE:HB2	1:J:787:VAL:HG11	1.94	0.48
1:J:869:ARG:O	1:J:873:LYS:HG3	2.14	0.48
1:J:1423:ASP:O	1:J:1427:ILE:HG12	2.14	0.48
1:J:1476:MET:HB2	1:J:1485:SER:HB2	1.95	0.48
1:J:3352:GLU:HG2	1:J:3353:LEU:H	1.79	0.48
1:J:3850:GLN:HB2	1:J:3873:LYS:HG3	1.96	0.48
1:J:4235:VAL:HG11	1:J:5019:TRP:CH2	2.49	0.48
2:A:30:LEU:HD23	2:A:36:PHE:CE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:51:ILE:HG23	3:C:71:ARG:HD2	1.96	0.48
3:M:40:ALA:HB3	3:M:43:LYS:HB3	1.96	0.48
1:B:222:LEU:O	1:B:223:PHE:HD1	1.96	0.48
1:B:869:ARG:O	1:B:873:LYS:HG3	2.14	0.48
1:B:1786:LEU:HD12	1:B:1787:PRO:HD2	1.96	0.48
1:B:2294:ASP:HA	1:B:2297:LYS:HE2	1.95	0.48
1:B:4109:GLN:HA	1:B:4112:LEU:HD12	1.96	0.48
1:E:266:ARG:HH12	1:E:273:HIS:HE1	1.58	0.48
1:E:710:ASP:OD1	1:E:711:LEU:N	2.46	0.48
1:G:911:HIS:HB2	1:G:918:ARG:NE	2.29	0.48
1:G:2504:LEU:O	1:G:2508:ARG:HG2	2.14	0.48
1:G:2960:LEU:HB3	1:G:3038:MET:HE1	1.94	0.48
1:G:3068:LEU:HA	1:G:3071:LEU:HD12	1.95	0.48
1:G:3141:THR:OG1	1:G:3193:CYS:SG	2.56	0.48
1:J:470:SER:HA	1:J:473:ASN:HD21	1.77	0.48
1:J:710:ASP:OD1	1:J:711:LEU:N	2.46	0.48
1:J:3183:VAL:O	1:J:3187:ARG:HG3	2.13	0.48
1:J:4230:LYS:NZ	1:J:4231:MET:SD	2.84	0.48
1:J:4943:LEU:O	1:J:4947:GLN:HG2	2.14	0.48
1:B:3534:MET:O	1:B:3538:THR:HG23	2.13	0.48
1:E:213:TYR:HD1	1:E:340:LYS:HA	1.79	0.48
1:E:470:SER:HA	1:E:473:ASN:HD21	1.77	0.48
1:E:3537:LYS:HD3	1:E:3600:SER:HB2	1.96	0.48
1:G:2454:ARG:HD2	1:G:2458:ARG:HH21	1.77	0.48
1:G:3352:GLU:HG2	1:G:3353:LEU:H	1.79	0.48
1:G:4109:GLN:HA	1:G:4112:LEU:HD12	1.96	0.48
1:J:993:HIS:CE1	1:J:1027:LEU:HD11	2.49	0.48
1:J:1180:ARG:HG3	1:J:1181:GLU:HG3	1.96	0.48
1:J:2970:SER:HA	1:J:2973:PHE:CD2	2.48	0.48
1:J:3333:THR:HG22	1:J:3337:ARG:CZ	2.42	0.48
1:J:3437:MET:O	1:J:3441:ILE:HG13	2.13	0.48
1:J:3550:ARG:O	1:J:3554:GLN:HG2	2.14	0.48
3:C:18:LEU:HD21	3:C:85:LEU:HD11	1.96	0.48
3:M:18:LEU:HD21	3:M:85:LEU:HD11	1.96	0.48
3:M:100:VAL:HG22	3:M:105:ASN:HB2	1.96	0.48
1:B:1690:ASP:OD2	1:B:1693:GLN:NE2	2.46	0.48
1:B:2751:LEU:HD12	1:B:2754:PHE:HD2	1.79	0.48
1:B:3752:SER:HB2	1:B:3755:GLU:HG3	1.96	0.48
1:B:4574:ASN:ND2	1:B:4813:LEU:HG	2.29	0.48
1:E:266:ARG:NH2	1:E:273:HIS:O	2.47	0.48
1:E:870:ILE:O	1:E:874:LEU:HG	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:897:ARG:HD3	1:E:905:PRO:HD3	1.95	0.48
1:G:728:ARG:HE	1:G:1487:LEU:HD12	1.78	0.48
1:G:2377:LEU:O	1:G:2381:GLU:HG2	2.13	0.48
1:G:3183:VAL:O	1:G:3187:ARG:HG3	2.13	0.48
1:G:4574:ASN:ND2	1:G:4813:LEU:HG	2.29	0.48
1:J:230:CYS:SG	1:J:231:LEU:HG	2.53	0.48
1:J:2504:LEU:O	1:J:2508:ARG:HG2	2.14	0.48
3:K:40:ALA:HB3	3:K:43:LYS:HB3	1.96	0.48
3:M:51:ILE:HG23	3:M:71:ARG:HD2	1.96	0.48
1:B:2381:GLU:O	1:B:2385:ARG:HG3	2.14	0.48
1:B:3417:ASP:OD1	1:B:3516:LYS:HE2	2.14	0.48
1:E:2689:LYS:HG2	1:E:2690:LYS:H	1.78	0.48
1:E:3834:ALA:O	1:E:3838:THR:HG23	2.14	0.48
1:E:4744:ASP:HB3	1:E:4747:SER:HB3	1.95	0.48
1:G:3550:ARG:O	1:G:3554:GLN:HG2	2.14	0.48
1:G:3850:GLN:HB2	1:G:3873:LYS:HG3	1.96	0.48
1:J:721:LEU:HG	1:J:730:VAL:HG21	1.95	0.48
1:J:3310:ASP:HA	1:J:3313:ASN:ND2	2.28	0.48
1:B:266:ARG:NH2	1:B:273:HIS:O	2.47	0.47
1:B:863:LEU:HD21	1:B:939:VAL:HG21	1.95	0.47
1:B:882:TRP:O	1:B:885:THR:OG1	2.24	0.47
1:B:3537:LYS:HD3	1:B:3600:SER:HB2	1.96	0.47
1:B:4104:THR:O	1:B:4108:ILE:HG12	2.13	0.47
1:E:882:TRP:CD1	1:E:886:ARG:NE	2.82	0.47
1:E:1973:GLN:NE2	1:E:2005:GLN:OE1	2.47	0.47
1:E:3315:LEU:HD13	1:E:3341:PHE:HE2	1.77	0.47
1:E:3550:ARG:O	1:E:3554:GLN:HG2	2.14	0.47
1:E:4104:THR:O	1:E:4108:ILE:HG12	2.13	0.47
1:E:4876:CYS:HA	1:E:4882:CYS:HB2	1.95	0.47
1:E:4943:LEU:O	1:E:4947:GLN:HG2	2.14	0.47
1:G:869:ARG:O	1:G:873:LYS:HG3	2.14	0.47
1:G:993:HIS:CE1	1:G:1027:LEU:HD11	2.49	0.47
1:G:2991:HIS:O	1:G:2995:ILE:HG13	2.13	0.47
3:K:51:ILE:HG23	3:K:71:ARG:HD2	1.96	0.47
1:B:2011:HIS:O	1:B:2011:HIS:ND1	2.41	0.47
1:E:14:LEU:HD13	1:E:202:MET:HG2	1.96	0.47
1:E:1649:ASP:HB3	1:E:1652:GLU:HG3	1.96	0.47
1:E:1690:ASP:OD2	1:E:1693:GLN:NE2	2.46	0.47
1:E:2328:GLY:HA3	1:E:2425:PHE:HE2	1.79	0.47
1:E:2751:LEU:HD12	1:E:2754:PHE:HD2	1.79	0.47
1:E:4735:GLU:O	1:E:4739:GLU:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1180:ARG:HG3	1:G:1181:GLU:HG3	1.96	0.47
1:G:1931:LEU:HD22	1:G:1935:VAL:HG11	1.96	0.47
1:G:2970:SER:HA	1:G:2973:PHE:CD2	2.48	0.47
1:G:3047:ALA:O	1:G:3051:ARG:N	2.47	0.47
1:G:3179:LYS:HG2	1:G:3268:HIS:CE1	2.50	0.47
1:G:3534:MET:O	1:G:3538:THR:HG23	2.13	0.47
1:G:3537:LYS:HD3	1:G:3600:SER:HB2	1.96	0.47
1:G:4090:LYS:HZ2	1:G:4112:LEU:HD23	1.78	0.47
1:J:14:LEU:HD13	1:J:202:MET:HG2	1.96	0.47
1:J:374:LYS:O	1:J:375:LYS:C	2.51	0.47
1:J:911:HIS:HB2	1:J:918:ARG:NE	2.29	0.47
1:J:1649:ASP:HB3	1:J:1652:GLU:HG3	1.96	0.47
1:J:3443:ILE:O	1:J:3447:LYS:HG3	2.13	0.47
2:H:30:LEU:HD23	2:H:36:PHE:CE2	2.48	0.47
3:C:40:ALA:HB3	3:C:43:LYS:HB3	1.96	0.47
3:F:40:ALA:HB3	3:F:43:LYS:HB3	1.96	0.47
1:B:3097:GLU:O	1:B:3167:ARG:NH2	2.44	0.47
1:B:3550:ARG:O	1:B:3554:GLN:HG2	2.14	0.47
1:B:3850:GLN:HB2	1:B:3873:LYS:HG3	1.96	0.47
1:E:869:ARG:O	1:E:873:LYS:HG3	2.14	0.47
1:E:3179:LYS:HG2	1:E:3268:HIS:CE1	2.49	0.47
1:E:3310:ASP:HA	1:E:3313:ASN:ND2	2.28	0.47
1:E:3352:GLU:HG2	1:E:3353:LEU:H	1.79	0.47
1:E:3850:GLN:HB2	1:E:3873:LYS:HG3	1.96	0.47
1:G:14:LEU:HD13	1:G:202:MET:HG2	1.96	0.47
1:G:2294:ASP:HA	1:G:2297:LYS:HE2	1.95	0.47
1:G:2328:GLY:HA3	1:G:2425:PHE:HE2	1.79	0.47
1:G:2381:GLU:O	1:G:2385:ARG:HG3	2.14	0.47
1:G:3310:ASP:HA	1:G:3313:ASN:ND2	2.28	0.47
1:J:2294:ASP:HA	1:J:2297:LYS:HE2	1.95	0.47
1:J:2689:LYS:HG2	1:J:2690:LYS:H	1.78	0.47
1:J:3068:LEU:HA	1:J:3071:LEU:HD12	1.95	0.47
1:J:3179:LYS:HG2	1:J:3268:HIS:CE1	2.49	0.47
1:J:4735:GLU:O	1:J:4739:GLU:HG2	2.15	0.47
1:E:252:VAL:HA	1:E:255:HIS:HB2	1.96	0.47
1:E:871:ARG:CZ	1:E:922:LEU:HB3	2.45	0.47
1:E:1620:ALA:HB3	1:E:1624:LEU:HB2	1.97	0.47
1:E:4109:GLN:HA	1:E:4112:LEU:HD12	1.96	0.47
1:G:3417:ASP:OD1	1:G:3516:LYS:HE2	2.14	0.47
1:J:3537:LYS:HD3	1:J:3600:SER:HB2	1.96	0.47
1:J:3713:LYS:NZ	1:J:3715:LYS:O	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4090:LYS:HE2	1:J:4123:ILE:HG21	1.97	0.47
1:B:870:ILE:O	1:B:874:LEU:HG	2.14	0.47
1:B:1867:GLU:HG2	1:B:1870:VAL:HG12	1.97	0.47
1:B:3179:LYS:HG2	1:B:3268:HIS:CE1	2.49	0.47
1:E:299:LEU:HD22	1:E:378:LEU:HG	1.97	0.47
1:E:728:ARG:HE	1:E:1487:LEU:HD12	1.78	0.47
1:E:882:TRP:O	1:E:885:THR:OG1	2.25	0.47
1:E:993:HIS:CE1	1:E:1027:LEU:HD11	2.49	0.47
1:E:3417:ASP:OD1	1:E:3516:LYS:HE2	2.14	0.47
1:E:4090:LYS:HE2	1:E:4123:ILE:HG21	1.97	0.47
1:E:4574:ASN:ND2	1:E:4813:LEU:HG	2.29	0.47
1:G:4735:GLU:O	1:G:4739:GLU:HG2	2.15	0.47
1:J:213:TYR:HD1	1:J:340:LYS:HA	1.79	0.47
1:J:871:ARG:CZ	1:J:922:LEU:HB3	2.45	0.47
1:J:1620:ALA:HB3	1:J:1624:LEU:HB2	1.97	0.47
1:J:1690:ASP:OD2	1:J:1693:GLN:NE2	2.46	0.47
2:H:78:PRO:HA	2:H:81:ALA:HB3	1.97	0.47
1:B:882:TRP:CD1	1:B:886:ARG:NE	2.82	0.47
1:B:984:LEU:O	1:B:988:LEU:HD23	2.15	0.47
1:B:3206:LEU:HD12	1:B:3206:LEU:H	1.78	0.47
1:B:3310:ASP:HA	1:B:3313:ASN:ND2	2.28	0.47
1:E:972:LEU:HD12	1:E:976:ARG:HA	1.97	0.47
1:E:3047:ALA:O	1:E:3051:ARG:N	2.47	0.47
1:E:3755:GLU:O	1:E:3758:MET:HG3	2.15	0.47
1:G:213:TYR:HD1	1:G:340:LYS:HA	1.79	0.47
1:G:882:TRP:CD1	1:G:886:ARG:NE	2.83	0.47
1:G:972:LEU:HD12	1:G:976:ARG:HA	1.97	0.47
1:G:3206:LEU:HD12	1:G:3206:LEU:H	1.79	0.47
1:G:3752:SER:HB2	1:G:3755:GLU:HG3	1.96	0.47
1:G:4090:LYS:HE2	1:G:4123:ILE:HG21	1.97	0.47
1:J:882:TRP:CD1	1:J:886:ARG:NE	2.83	0.47
1:J:972:LEU:HD12	1:J:976:ARG:HA	1.97	0.47
1:J:4083:ASP:HB3	1:J:4087:LEU:H	1.80	0.47
1:J:4876:CYS:HA	1:J:4882:CYS:HB2	1.95	0.47
1:B:911:HIS:HB2	1:B:918:ARG:NE	2.29	0.47
1:B:972:LEU:HD12	1:B:976:ARG:HA	1.97	0.47
1:B:1649:ASP:HB3	1:B:1652:GLU:HG3	1.96	0.47
1:B:2715:VAL:HG12	1:B:2954:ARG:HA	1.97	0.47
1:B:3018:LEU:HD13	1:B:3150:HIS:HE1	1.80	0.47
1:B:3755:GLU:O	1:B:3758:MET:HG3	2.15	0.47
1:B:4000:MET:HE1	1:B:4058:ILE:HG12	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4083:ASP:HB3	1:B:4087:LEU:H	1.80	0.47
1:E:365:LYS:O	1:E:369:LEU:HG	2.15	0.47
1:E:721:LEU:HG	1:E:730:VAL:HG21	1.95	0.47
1:E:1180:ARG:HG3	1:E:1181:GLU:HG3	1.96	0.47
1:E:1867:GLU:HG2	1:E:1870:VAL:HG12	1.97	0.47
1:E:2755:ILE:HD12	1:E:2813:LEU:HD13	1.96	0.47
1:E:2975:ALA:O	1:E:2978:GLU:HG2	2.15	0.47
1:E:3078:ARG:HG3	1:E:3082:LYS:HE3	1.97	0.47
1:E:3752:SER:HB2	1:E:3755:GLU:HG3	1.96	0.47
1:E:4000:MET:HE1	1:E:4058:ILE:HG12	1.97	0.47
1:E:5011:TRP:O	1:E:5015:GLN:HG3	2.15	0.47
1:G:1274:HIS:O	1:G:1559:GLN:NE2	2.33	0.47
1:G:2559:LEU:O	1:G:2563:THR:HG23	2.15	0.47
1:G:2751:LEU:HD12	1:G:2754:PHE:HD2	1.79	0.47
1:G:3043:PHE:CE1	1:G:3075:LEU:HD21	2.50	0.47
1:G:3780:LEU:HD11	1:G:3816:MET:HG2	1.97	0.47
1:J:870:ILE:O	1:J:874:LEU:HG	2.14	0.47
1:J:3755:GLU:O	1:J:3758:MET:HG3	2.15	0.47
1:J:3834:ALA:O	1:J:3838:THR:HG23	2.14	0.47
1:J:4574:ASN:ND2	1:J:4813:LEU:HG	2.29	0.47
1:J:5011:TRP:O	1:J:5015:GLN:HG3	2.15	0.47
1:B:1931:LEU:HD22	1:B:1935:VAL:HG11	1.96	0.47
1:B:2975:ALA:O	1:B:2978:GLU:HG2	2.15	0.47
1:B:3047:ALA:O	1:B:3051:ARG:N	2.47	0.47
1:B:3834:ALA:O	1:B:3838:THR:HG23	2.14	0.47
1:E:2670:GLU:HG3	1:E:2912:THR:HA	1.97	0.47
1:E:3042:LEU:HD22	1:E:3071:LEU:HD11	1.95	0.47
1:E:3078:ARG:H	1:E:3078:ARG:HD2	1.80	0.47
1:E:4068:LEU:O	1:E:4071:ILE:HG22	2.15	0.47
1:G:924:MET:CE	3:M:106:PRO:HB2	2.44	0.47
1:G:1620:ALA:HB3	1:G:1624:LEU:HB2	1.97	0.47
1:G:1786:LEU:HD12	1:G:1787:PRO:HD2	1.96	0.47
1:G:2700:MET:N	1:G:2701:PRO:HD2	2.30	0.47
1:G:2715:VAL:HG12	1:G:2954:ARG:HA	1.97	0.47
1:G:3717:ASP:OD1	1:G:3717:ASP:N	2.48	0.47
1:G:4083:ASP:HB3	1:G:4087:LEU:H	1.80	0.47
1:G:5011:TRP:O	1:G:5015:GLN:HG3	2.15	0.47
1:J:1867:GLU:HG2	1:J:1870:VAL:HG12	1.97	0.47
1:J:2670:GLU:HG3	1:J:2912:THR:HA	1.97	0.47
1:J:3043:PHE:CE1	1:J:3075:LEU:HD21	2.50	0.47
1:B:153:ALA:HB2	1:B:170:ILE:HG13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1620:ALA:HB3	1:B:1624:LEU:HB2	1.97	0.47
1:B:4093:PHE:CD1	1:B:4123:ILE:HD11	2.50	0.47
1:E:3043:PHE:CE1	1:E:3075:LEU:HD21	2.50	0.47
1:G:299:LEU:HD23	1:G:376:ALA:O	2.15	0.47
1:G:870:ILE:O	1:G:874:LEU:HG	2.14	0.47
1:G:1436:SER:OG	1:G:1565:GLU:HB2	2.15	0.47
1:G:2755:ILE:HD12	1:G:2813:LEU:HD13	1.96	0.47
1:G:3777:GLU:O	1:G:3781:GLN:HG3	2.15	0.47
1:G:4000:MET:HE1	1:G:4058:ILE:HG12	1.97	0.47
1:J:266:ARG:NH2	1:J:273:HIS:O	2.47	0.47
1:J:1931:LEU:HD22	1:J:1935:VAL:HG11	1.96	0.47
3:F:51:ILE:HG23	3:F:71:ARG:HD2	1.96	0.47
1:B:2700:MET:N	1:B:2701:PRO:HD2	2.30	0.47
1:B:3277:LEU:HG	1:B:3341:PHE:CZ	2.50	0.47
1:B:4735:GLU:O	1:B:4739:GLU:HG2	2.15	0.47
1:E:984:LEU:O	1:E:988:LEU:HD23	2.15	0.47
1:E:3018:LEU:HD13	1:E:3150:HIS:HE1	1.80	0.47
1:E:3097:GLU:O	1:E:3167:ARG:NH2	2.44	0.47
1:E:4091:LYS:NZ	1:E:4092:ASP:OD1	2.48	0.47
1:E:4157:ASP:N	1:E:4161:ARG:HH21	2.13	0.47
1:G:153:ALA:HB2	1:G:170:ILE:HG13	1.97	0.47
1:G:882:TRP:O	1:G:885:THR:OG1	2.25	0.47
1:J:299:LEU:HD23	1:J:376:ALA:O	2.15	0.47
1:J:551:LEU:HB3	1:J:589:LEU:HD21	1.97	0.47
1:J:1973:GLN:NE2	1:J:2005:GLN:OE1	2.47	0.47
1:J:3539:ARG:HB3	1:J:3544:ASP:CG	2.36	0.47
1:J:3717:ASP:N	1:J:3717:ASP:OD1	2.48	0.47
1:J:4000:MET:HE1	1:J:4058:ILE:HG12	1.97	0.47
1:B:871:ARG:CZ	1:B:922:LEU:HB3	2.45	0.46
1:B:3352:GLU:HG2	1:B:3353:LEU:H	1.79	0.46
1:E:3539:ARG:HB3	1:E:3544:ASP:CG	2.36	0.46
1:E:3713:LYS:NZ	1:E:3715:LYS:O	2.48	0.46
1:E:4093:PHE:CD1	1:E:4123:ILE:HD11	2.50	0.46
1:G:266:ARG:NH2	1:G:273:HIS:O	2.47	0.46
1:G:1079:LYS:HA	1:G:1189:LEU:HD11	1.97	0.46
1:G:1100:MET:HG2	1:G:1194:LEU:HG	1.97	0.46
1:G:1649:ASP:HB3	1:G:1652:GLU:HG3	1.96	0.46
1:G:3078:ARG:H	1:G:3078:ARG:HD2	1.80	0.46
1:G:3834:ALA:O	1:G:3838:THR:HG23	2.14	0.46
1:J:2489:LYS:HE3	1:J:2546:MET:HG2	1.98	0.46
1:J:2751:LEU:HD12	1:J:2754:PHE:HD2	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2755:ILE:HD12	1:J:2813:LEU:HD13	1.97	0.46
1:J:2975:ALA:O	1:J:2978:GLU:HG2	2.15	0.46
1:J:3047:ALA:O	1:J:3051:ARG:N	2.47	0.46
1:J:3752:SER:HB2	1:J:3755:GLU:HG3	1.96	0.46
1:J:3780:LEU:HD11	1:J:3816:MET:HG2	1.97	0.46
1:B:1617:THR:HG22	1:B:1628:VAL:HG13	1.97	0.46
1:B:2489:LYS:HE3	1:B:2546:MET:HG2	1.98	0.46
1:B:2773:ASN:OD1	1:E:1508:ARG:NH2	2.40	0.46
1:B:3068:LEU:HA	1:B:3071:LEU:HD12	1.96	0.46
1:B:4090:LYS:HE2	1:B:4123:ILE:HG21	1.97	0.46
1:B:4157:ASP:N	1:B:4161:ARG:HH21	2.13	0.46
1:E:1436:SER:OG	1:E:1565:GLU:HB2	2.15	0.46
1:E:1617:THR:HG22	1:E:1628:VAL:HG13	1.97	0.46
1:E:3068:LEU:HA	1:E:3071:LEU:HD12	1.96	0.46
1:E:3277:LEU:HG	1:E:3341:PHE:CZ	2.50	0.46
1:J:3144:PHE:CE2	1:J:3197:LEU:HB3	2.51	0.46
1:J:3592:ILE:HA	1:J:3595:ARG:HE	1.80	0.46
1:J:4157:ASP:N	1:J:4161:ARG:HH21	2.13	0.46
1:B:1100:MET:HG2	1:B:1194:LEU:HG	1.97	0.46
1:B:3209:GLN:HG2	1:B:3210:LEU:HG	1.98	0.46
1:B:3780:LEU:HD11	1:B:3816:MET:HG2	1.97	0.46
1:B:4068:LEU:O	1:B:4071:ILE:HG22	2.14	0.46
1:E:153:ALA:HB2	1:E:170:ILE:HG13	1.97	0.46
1:E:1931:LEU:HD22	1:E:1935:VAL:HG11	1.96	0.46
1:E:2381:GLU:O	1:E:2385:ARG:HG3	2.14	0.46
1:E:4083:ASP:HB3	1:E:4087:LEU:H	1.80	0.46
1:G:470:SER:HA	1:G:473:ASN:ND2	2.31	0.46
1:G:1867:GLU:HG2	1:G:1870:VAL:HG12	1.97	0.46
1:J:470:SER:HA	1:J:473:ASN:ND2	2.31	0.46
1:J:981:GLN:O	1:J:985:VAL:HG23	2.15	0.46
1:J:1100:MET:HG2	1:J:1194:LEU:HG	1.97	0.46
1:J:2715:VAL:HG12	1:J:2954:ARG:HA	1.97	0.46
1:J:3417:ASP:OD1	1:J:3516:LYS:HE2	2.14	0.46
1:J:4068:LEU:O	1:J:4071:ILE:HG22	2.15	0.46
1:B:2693:GLN:HB3	1:B:2697:ARG:HH22	1.81	0.46
1:B:3758:MET:O	1:B:3762:ARG:HG2	2.16	0.46
1:B:3927:GLN:NE2	1:B:3991:GLY:HA3	2.31	0.46
1:E:470:SER:HA	1:E:473:ASN:ND2	2.31	0.46
1:E:1079:LYS:HA	1:E:1189:LEU:HD11	1.97	0.46
1:E:2700:MET:N	1:E:2701:PRO:HD2	2.30	0.46
1:E:2973:PHE:CE1	1:E:2995:ILE:HG23	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:551:LEU:HB3	1:G:589:LEU:HD21	1.97	0.46
1:G:937:CYS:SG	1:G:984:LEU:HD22	2.56	0.46
1:G:2619:LEU:O	1:G:2623:LEU:HG	2.16	0.46
1:G:3018:LEU:HD13	1:G:3150:HIS:HE1	1.80	0.46
1:G:3539:ARG:HB3	1:G:3544:ASP:CG	2.35	0.46
1:G:3713:LYS:NZ	1:G:3715:LYS:O	2.48	0.46
1:J:1727:ARG:NH2	1:J:1773:PRO:O	2.49	0.46
1:J:2765:LYS:HD3	1:J:2765:LYS:HA	1.67	0.46
1:B:14:LEU:HD13	1:B:202:MET:HG2	1.96	0.46
1:B:1180:ARG:HG3	1:B:1181:GLU:HG3	1.96	0.46
1:B:1727:ARG:NH2	1:B:1773:PRO:O	2.48	0.46
1:E:2489:LYS:HE3	1:E:2546:MET:HG2	1.97	0.46
1:E:2619:LEU:O	1:E:2623:LEU:HG	2.16	0.46
1:E:3505:VAL:HG23	1:E:3507:THR:H	1.80	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:CE	2.46	0.46
1:G:2489:LYS:HE3	1:G:2546:MET:HG2	1.98	0.46
1:G:3505:VAL:HG23	1:G:3507:THR:H	1.80	0.46
1:J:1274:HIS:O	1:J:1559:GLN:NE2	2.33	0.46
1:J:2328:GLY:HA3	1:J:2425:PHE:HE2	1.79	0.46
1:J:2381:GLU:O	1:J:2385:ARG:HG3	2.14	0.46
2:I:78:PRO:HA	2:I:81:ALA:HB3	1.96	0.46
1:B:2559:LEU:O	1:B:2563:THR:HG23	2.15	0.46
1:B:3078:ARG:H	1:B:3078:ARG:HD2	1.80	0.46
1:B:3391:GLU:O	1:B:3395:ARG:HG3	2.16	0.46
1:E:2715:VAL:HG12	1:E:2954:ARG:HA	1.97	0.46
1:E:3144:PHE:CE2	1:E:3197:LEU:HB3	2.51	0.46
1:E:3780:LEU:HD11	1:E:3816:MET:HG2	1.97	0.46
1:G:871:ARG:CZ	1:G:922:LEU:HB3	2.45	0.46
1:G:924:MET:O	1:G:928:THR:HG23	2.16	0.46
1:G:2975:ALA:O	1:G:2978:GLU:HG2	2.15	0.46
1:G:3277:LEU:HG	1:G:3341:PHE:CZ	2.50	0.46
1:G:4097:MET:SD	1:G:4108:ILE:HG23	2.56	0.46
1:J:937:CYS:SG	1:J:984:LEU:HD22	2.56	0.46
1:J:1436:SER:OG	1:J:1565:GLU:HB2	2.15	0.46
1:J:2700:MET:N	1:J:2701:PRO:HD2	2.30	0.46
1:J:3018:LEU:HD13	1:J:3150:HIS:HE1	1.80	0.46
1:J:3078:ARG:HG3	1:J:3082:LYS:HE3	1.97	0.46
1:J:3078:ARG:H	1:J:3078:ARG:HD2	1.80	0.46
1:J:3277:LEU:HG	1:J:3341:PHE:CZ	2.50	0.46
1:J:3777:GLU:O	1:J:3781:GLN:HG3	2.15	0.46
3:F:105:ASN:OD1	3:F:111:ASN:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2670:GLU:HG3	1:B:2912:THR:HA	1.97	0.46
1:B:3043:PHE:CE1	1:B:3075:LEU:HD21	2.50	0.46
1:B:3144:PHE:CE2	1:B:3197:LEU:HB3	2.51	0.46
1:B:3539:ARG:HB3	1:B:3544:ASP:CG	2.36	0.46
1:B:3777:GLU:O	1:B:3781:GLN:HG3	2.15	0.46
1:E:283:ARG:NH1	1:E:290:TYR:OH	2.49	0.46
1:E:551:LEU:HB3	1:E:589:LEU:HD21	1.98	0.46
1:E:2495:VAL:HB	1:E:2498:HIS:CD2	2.51	0.46
1:E:3717:ASP:N	1:E:3717:ASP:OD1	2.48	0.46
1:E:3777:GLU:O	1:E:3781:GLN:HG3	2.15	0.46
1:G:3209:GLN:HG2	1:G:3210:LEU:HG	1.98	0.46
1:G:3391:GLU:O	1:G:3395:ARG:HG3	2.16	0.46
1:G:4118:ASP:OD1	1:G:4119:GLU:N	2.49	0.46
1:J:2559:LEU:O	1:J:2563:THR:HG23	2.15	0.46
1:J:3051:ARG:NH2	1:J:3098:SER:HB3	2.31	0.46
1:J:3262:ARG:HG3	1:J:3326:ASN:ND2	2.28	0.46
1:J:3540:TYR:HA	1:J:3544:ASP:O	2.16	0.46
2:A:78:PRO:HA	2:A:81:ALA:HB3	1.97	0.46
1:B:171:LEU:HB2	1:B:180:LEU:HD13	1.98	0.46
1:B:921:ASN:O	1:B:924:MET:HB3	2.15	0.46
1:B:1436:SER:OG	1:B:1565:GLU:HB2	2.15	0.46
1:B:3713:LYS:NZ	1:B:3715:LYS:O	2.48	0.46
1:E:251:ALA:O	1:E:255:HIS:ND1	2.40	0.46
1:E:924:MET:CE	3:F:107:TRP:CD1	2.99	0.46
1:E:2559:LEU:O	1:E:2563:THR:HG23	2.15	0.46
1:E:3051:ARG:NH2	1:E:3098:SER:HB3	2.31	0.46
1:G:171:LEU:HB2	1:G:180:LEU:HD13	1.98	0.46
1:G:921:ASN:O	1:G:924:MET:HB3	2.15	0.46
1:G:3051:ARG:NH2	1:G:3098:SER:HB3	2.31	0.46
1:G:3078:ARG:HG3	1:G:3082:LYS:HE3	1.97	0.46
1:G:3755:GLU:O	1:G:3758:MET:HG3	2.15	0.46
1:G:4093:PHE:CD1	1:G:4123:ILE:HD11	2.50	0.46
1:J:984:LEU:O	1:J:988:LEU:HD23	2.15	0.46
1:J:1738:LEU:HD12	1:J:1738:LEU:HA	1.80	0.46
1:J:3927:GLN:NE2	1:J:3991:GLY:HA3	2.31	0.46
3:C:105:ASN:OD1	3:C:111:ASN:HB2	2.16	0.46
1:B:551:LEU:HB3	1:B:589:LEU:HD21	1.97	0.46
1:B:2755:ILE:HD12	1:B:2813:LEU:HD13	1.97	0.46
1:B:3078:ARG:HG3	1:B:3082:LYS:HE3	1.97	0.46
1:B:3435:PHE:HZ	1:B:3602:VAL:HG21	1.81	0.46
1:B:3592:ILE:HA	1:B:3595:ARG:HE	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:861:ILE:HG21	1:E:933:LEU:HD22	1.98	0.46
1:E:924:MET:O	1:E:928:THR:HG23	2.16	0.46
1:E:2693:GLN:HB3	1:E:2697:ARG:HH22	1.81	0.46
1:E:3758:MET:O	1:E:3762:ARG:HG2	2.16	0.46
1:G:661:LYS:HG2	1:G:749:ASP:OD1	2.16	0.46
1:G:887:ILE:HG21	1:G:959:TYR:HA	1.97	0.46
1:G:984:LEU:O	1:G:988:LEU:HD23	2.15	0.46
1:G:1727:ARG:NH2	1:G:1773:PRO:O	2.48	0.46
1:G:2670:GLU:HG3	1:G:2912:THR:HA	1.97	0.46
1:G:3758:MET:O	1:G:3762:ARG:HG2	2.16	0.46
1:J:661:LYS:HG2	1:J:749:ASP:OD1	2.16	0.46
1:J:2619:LEU:O	1:J:2623:LEU:HG	2.16	0.46
1:J:3505:VAL:HG23	1:J:3507:THR:H	1.80	0.46
1:J:4093:PHE:CD1	1:J:4123:ILE:HD11	2.50	0.46
2:D:78:PRO:HA	2:D:81:ALA:HB3	1.97	0.46
3:K:32:ASN:ND2	3:K:101:PRO:HB3	2.31	0.46
3:M:105:ASN:ND2	3:M:107:TRP:HD1	2.12	0.46
1:B:222:LEU:O	1:B:230:CYS:HB3	2.16	0.46
1:B:283:ARG:NH1	1:B:290:TYR:OH	2.49	0.46
1:B:861:ILE:HG21	1:B:933:LEU:HD22	1.98	0.46
1:B:924:MET:O	1:B:928:THR:HG23	2.16	0.46
1:B:1000:ARG:NH2	3:C:115:ASP:O	2.49	0.46
1:B:3051:ARG:NH2	1:B:3098:SER:HB3	2.31	0.46
1:E:222:LEU:O	1:E:230:CYS:HB3	2.16	0.46
1:E:3391:GLU:O	1:E:3395:ARG:HG3	2.16	0.46
1:E:3592:ILE:HA	1:E:3595:ARG:HE	1.80	0.46
1:G:140:ASP:OD1	1:G:140:ASP:N	2.49	0.46
1:G:981:GLN:O	1:G:985:VAL:HG23	2.15	0.46
1:G:2523:ASP:OD1	1:G:2524:VAL:N	2.49	0.46
1:G:2973:PHE:CE1	1:G:2995:ILE:HG23	2.51	0.46
1:G:3445:TRP:HA	1:G:3451:PHE:CD1	2.49	0.46
1:J:2523:ASP:OD1	1:J:2524:VAL:N	2.49	0.46
1:J:4107:GLU:O	1:J:4111:LEU:HG	2.16	0.46
2:A:17:LYS:N	2:A:20:GLN:OE1	2.49	0.46
3:K:105:ASN:OD1	3:K:111:ASN:HB2	2.16	0.46
1:B:2495:VAL:HB	1:B:2498:HIS:CD2	2.51	0.45
1:B:2619:LEU:O	1:B:2623:LEU:HG	2.16	0.45
1:B:2973:PHE:CE1	1:B:2995:ILE:HG23	2.51	0.45
1:B:3505:VAL:HG23	1:B:3507:THR:H	1.80	0.45
1:G:244:LEU:HD23	1:G:375:LYS:HZ2	1.81	0.45
1:G:3144:PHE:CE2	1:G:3197:LEU:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4068:LEU:O	1:G:4071:ILE:HG22	2.15	0.45
1:G:4157:ASP:N	1:G:4161:ARG:HH21	2.13	0.45
1:J:153:ALA:HB2	1:J:170:ILE:HG13	1.97	0.45
1:J:228:ASP:HA	1:J:247:TYR:HE1	1.82	0.45
1:J:1617:THR:HG22	1:J:1628:VAL:HG13	1.97	0.45
1:J:2689:LYS:HG2	1:J:2690:LYS:N	2.31	0.45
1:J:3223:SER:O	1:J:3227:ARG:HG3	2.17	0.45
1:J:3391:GLU:O	1:J:3395:ARG:HG3	2.16	0.45
1:B:77:ALA:O	1:B:81:MET:HG3	2.17	0.45
1:B:470:SER:HA	1:B:473:ASN:ND2	2.31	0.45
1:B:937:CYS:SG	1:B:984:LEU:HD22	2.56	0.45
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.97	0.45
1:B:2765:LYS:HD3	1:B:2765:LYS:HA	1.67	0.45
1:B:3717:ASP:N	1:B:3717:ASP:OD1	2.48	0.45
1:E:228:ASP:HA	1:E:247:TYR:HE1	1.82	0.45
1:E:2523:ASP:OD1	1:E:2524:VAL:N	2.49	0.45
1:E:3006:ILE:HD11	1:E:3071:LEU:HD21	1.97	0.45
1:E:3148:ALA:HB2	1:E:3200:ALA:HB2	1.98	0.45
1:G:222:LEU:O	1:G:230:CYS:HB3	2.16	0.45
1:G:2689:LYS:HG2	1:G:2690:LYS:N	2.31	0.45
1:G:3592:ILE:HA	1:G:3595:ARG:HE	1.80	0.45
1:J:921:ASN:O	1:J:924:MET:HB3	2.15	0.45
1:J:1079:LYS:HA	1:J:1189:LEU:HD11	1.97	0.45
1:B:3075:LEU:O	1:B:3146:HIS:HE1	1.99	0.45
1:B:3540:TYR:HA	1:B:3544:ASP:O	2.16	0.45
1:B:4097:MET:SD	1:B:4108:ILE:HG23	2.56	0.45
1:B:4107:GLU:O	1:B:4111:LEU:HG	2.16	0.45
1:B:4230:LYS:NZ	1:B:4231:MET:SD	2.84	0.45
1:B:5011:TRP:O	1:B:5015:GLN:HG3	2.15	0.45
1:E:171:LEU:HB2	1:E:180:LEU:HD13	1.98	0.45
1:E:921:ASN:O	1:E:924:MET:HB3	2.15	0.45
1:E:981:GLN:O	1:E:985:VAL:HG23	2.15	0.45
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.17	0.45
1:G:861:ILE:HG21	1:G:933:LEU:HD22	1.98	0.45
1:G:1617:THR:HG22	1:G:1628:VAL:HG13	1.97	0.45
1:G:3006:ILE:HD11	1:G:3071:LEU:HD21	1.97	0.45
1:G:3435:PHE:HZ	1:G:3602:VAL:HG21	1.81	0.45
1:J:861:ILE:HG21	1:J:933:LEU:HD22	1.98	0.45
1:J:2765:LYS:HZ3	1:J:2857:PRO:HG2	1.80	0.45
1:J:3989:VAL:HG13	1:J:4023:MET:CE	2.46	0.45
1:B:23:GLN:HB3	1:B:34:LYS:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:981:GLN:O	1:B:985:VAL:HG23	2.15	0.45
1:B:2978:GLU:HB3	1:B:3056:LEU:HD11	1.99	0.45
1:B:3223:SER:O	1:B:3227:ARG:HG3	2.17	0.45
1:E:1727:ARG:NH2	1:E:1773:PRO:O	2.48	0.45
1:E:2765:LYS:HZ3	1:E:2857:PRO:HG2	1.82	0.45
1:G:228:ASP:HA	1:G:247:TYR:HE1	1.82	0.45
1:G:2495:VAL:HB	1:G:2498:HIS:CD2	2.51	0.45
1:G:2693:GLN:HB3	1:G:2697:ARG:HH22	1.81	0.45
1:G:2978:GLU:HB3	1:G:3056:LEU:HD11	1.99	0.45
1:G:3540:TYR:HA	1:G:3544:ASP:O	2.16	0.45
1:J:2973:PHE:CE1	1:J:2995:ILE:HG23	2.51	0.45
1:J:3018:LEU:HD13	1:J:3150:HIS:CE1	2.51	0.45
1:J:4032:GLU:HG3	1:J:5006:GLN:HE21	1.81	0.45
1:J:4655:PHE:O	1:J:4659:ILE:HG12	2.17	0.45
2:H:25:HIS:HB3	2:H:40:ARG:CZ	2.47	0.45
1:B:601:ASP:OD1	1:B:1668:ARG:NH2	2.49	0.45
1:B:937:CYS:HB3	1:B:1053:ILE:HG22	1.98	0.45
1:B:3018:LEU:HD13	1:B:3150:HIS:CE1	2.51	0.45
1:E:601:ASP:OD1	1:E:1668:ARG:NH2	2.49	0.45
1:E:2689:LYS:HG2	1:E:2690:LYS:N	2.31	0.45
1:E:3075:LEU:O	1:E:3146:HIS:HE1	1.99	0.45
1:E:3223:SER:O	1:E:3227:ARG:HG3	2.17	0.45
1:G:4032:GLU:HG3	1:G:5006:GLN:HE21	1.81	0.45
1:J:77:ALA:O	1:J:81:MET:HG3	2.17	0.45
1:J:222:LEU:O	1:J:230:CYS:HB3	2.16	0.45
1:J:601:ASP:OD1	1:J:1668:ARG:NH2	2.50	0.45
1:J:4097:MET:SD	1:J:4108:ILE:HG23	2.56	0.45
2:A:25:HIS:HB3	2:A:40:ARG:CZ	2.47	0.45
2:I:17:LYS:N	2:I:20:GLN:OE1	2.49	0.45
1:B:228:ASP:HA	1:B:247:TYR:HE1	1.82	0.45
1:B:3148:ALA:HB2	1:B:3200:ALA:HB2	1.98	0.45
1:E:871:ARG:HB2	1:E:925:SER:HB3	1.99	0.45
1:E:887:ILE:HG21	1:E:959:TYR:HA	1.97	0.45
1:E:917:GLU:CB	3:F:104:TYR:HE2	2.23	0.45
1:E:2765:LYS:NZ	1:E:2860:PRO:HA	2.32	0.45
1:E:3018:LEU:HD13	1:E:3150:HIS:CE1	2.51	0.45
1:G:871:ARG:HB2	1:G:925:SER:HB3	1.99	0.45
1:G:4230:LYS:NZ	1:G:4231:MET:SD	2.84	0.45
1:J:283:ARG:NH1	1:J:290:TYR:OH	2.49	0.45
1:J:1964:ARG:O	1:J:1968:LYS:NZ	2.46	0.45
1:J:2495:VAL:HB	1:J:2498:HIS:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3075:LEU:O	1:J:3146:HIS:HE1	1.99	0.45
1:J:3327:LEU:HD22	1:J:3368:ARG:CZ	2.47	0.45
1:B:3006:ILE:HD11	1:B:3071:LEU:HD21	1.97	0.45
1:B:4032:GLU:HG3	1:B:5006:GLN:HE21	1.81	0.45
1:E:487:VAL:O	1:E:491:ILE:HG13	2.17	0.45
1:E:661:LYS:HG2	1:E:749:ASP:OD1	2.16	0.45
1:E:937:CYS:SG	1:E:984:LEU:HD22	2.56	0.45
1:E:1100:MET:HG2	1:E:1194:LEU:HG	1.97	0.45
1:G:3989:VAL:HG13	1:G:4023:MET:CE	2.46	0.45
1:J:140:ASP:OD1	1:J:140:ASP:N	2.49	0.45
1:J:3148:ALA:HB2	1:J:3200:ALA:HB2	1.98	0.45
1:J:3209:GLN:HG2	1:J:3210:LEU:HG	1.98	0.45
1:J:4091:LYS:NZ	1:J:4092:ASP:OD1	2.48	0.45
1:B:487:VAL:O	1:B:491:ILE:HG13	2.17	0.45
1:B:871:ARG:HB2	1:B:925:SER:HB3	1.99	0.45
1:B:887:ILE:HG21	1:B:959:TYR:HA	1.97	0.45
1:B:4767:TRP:O	1:B:4767:TRP:HD1	1.99	0.45
1:B:5017:ARG:HD3	1:B:5019:TRP:CZ2	2.52	0.45
1:E:2702:CYS:O	1:E:2706:ILE:HD13	2.17	0.45
1:E:3927:GLN:NE2	1:E:3991:GLY:HA3	2.31	0.45
1:E:4107:GLU:O	1:E:4111:LEU:HG	2.16	0.45
1:E:4813:LEU:HD23	1:E:4813:LEU:HA	1.85	0.45
1:G:426:ARG:H	1:G:506:TYR:HA	1.82	0.45
1:G:3927:GLN:NE2	1:G:3991:GLY:HA3	2.31	0.45
1:G:4107:GLU:O	1:G:4111:LEU:HG	2.16	0.45
1:J:171:LEU:HB2	1:J:180:LEU:HD13	1.98	0.45
1:J:887:ILE:HG21	1:J:959:TYR:HA	1.97	0.45
1:J:924:MET:CE	3:K:107:TRP:CD1	3.00	0.45
1:J:3758:MET:O	1:J:3762:ARG:HG2	2.16	0.45
2:I:25:HIS:HB3	2:I:40:ARG:CZ	2.47	0.45
3:F:32:ASN:ND2	3:F:101:PRO:HB3	2.32	0.45
3:K:104:TYR:CE1	3:K:106:PRO:HG3	2.46	0.45
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.90	0.45
1:B:3318:ASN:O	1:B:3322:ILE:HG12	2.17	0.45
1:B:4655:PHE:O	1:B:4659:ILE:HG12	2.16	0.45
1:E:424:LYS:HE2	1:E:424:LYS:HB2	1.85	0.45
1:E:937:CYS:HB3	1:E:1053:ILE:HG22	1.98	0.45
1:E:3327:LEU:HD22	1:E:3368:ARG:CZ	2.47	0.45
1:G:77:ALA:O	1:G:81:MET:HG3	2.17	0.45
1:G:283:ARG:NH1	1:G:290:TYR:OH	2.49	0.45
1:G:553:ARG:NH1	1:G:555:GLU:OE2	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2283:ASN:HB3	1:G:2286:LEU:HB2	1.99	0.45
1:G:3401:LEU:HD23	1:G:3401:LEU:HA	1.81	0.45
1:J:244:LEU:HD23	1:J:375:LYS:HZ2	1.81	0.45
1:J:937:CYS:HB3	1:J:1053:ILE:HG22	1.98	0.45
1:J:3459:VAL:HG11	1:J:3505:VAL:HG11	1.99	0.45
1:B:173:SER:HB2	1:B:176:SER:O	2.17	0.45
1:B:251:ALA:O	1:B:255:HIS:ND1	2.40	0.45
1:B:426:ARG:H	1:B:506:TYR:HA	1.82	0.45
1:B:936:GLY:HA3	1:B:1056:PRO:HB3	1.99	0.45
1:B:2523:ASP:OD1	1:B:2524:VAL:N	2.49	0.45
1:B:2689:LYS:HG2	1:B:2690:LYS:N	2.31	0.45
1:B:2758:PHE:O	1:B:2762:THR:HG23	2.17	0.45
1:E:426:ARG:H	1:E:506:TYR:HA	1.82	0.45
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.83	0.45
1:E:864:PRO:N	1:E:865:PRO:HD2	2.32	0.45
1:E:3262:ARG:HG3	1:E:3326:ASN:ND2	2.28	0.45
1:E:3534:MET:SD	1:E:3537:LYS:NZ	2.75	0.45
1:E:3540:TYR:HA	1:E:3544:ASP:O	2.16	0.45
1:E:4065:PHE:HA	1:E:4068:LEU:HB2	1.99	0.45
1:E:4069:LYS:O	1:E:4072:VAL:HG12	2.17	0.45
1:E:4767:TRP:O	1:E:4767:TRP:HD1	1.99	0.45
1:G:340:LYS:HB2	1:G:344:SER:HB3	1.99	0.45
1:G:601:ASP:OD1	1:G:1668:ARG:NH2	2.50	0.45
1:G:874:LEU:O	1:G:878:ILE:HG12	2.17	0.45
1:G:2758:PHE:O	1:G:2762:THR:HG23	2.17	0.45
1:G:3075:LEU:O	1:G:3146:HIS:HE1	1.99	0.45
1:G:3223:SER:O	1:G:3227:ARG:HG3	2.17	0.45
1:J:874:LEU:O	1:J:878:ILE:HG12	2.17	0.45
1:J:924:MET:O	1:J:928:THR:HG23	2.16	0.45
1:J:2693:GLN:HB3	1:J:2697:ARG:HH22	1.81	0.45
1:J:2702:CYS:O	1:J:2706:ILE:HD13	2.17	0.45
1:J:2801:ASP:HA	1:J:2804:ILE:HG12	1.99	0.45
1:J:3006:ILE:HD11	1:J:3071:LEU:HD21	1.97	0.45
1:J:4767:TRP:O	1:J:4767:TRP:HD1	1.99	0.45
1:J:5017:ARG:HD3	1:J:5019:TRP:CZ2	2.52	0.45
1:B:371:VAL:HG12	1:B:373:LYS:H	1.82	0.44
1:B:2886:TRP:HA	1:B:2889:LYS:HG2	1.99	0.44
1:E:77:ALA:O	1:E:81:MET:HG3	2.17	0.44
1:E:728:ARG:NH2	1:E:1489:CYS:SG	2.90	0.44
1:E:3052:HIS:C	1:E:3053:ARG:HD2	2.38	0.44
1:E:3318:ASN:O	1:E:3322:ILE:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3435:PHE:HZ	1:E:3602:VAL:HG21	1.81	0.44
1:G:487:VAL:O	1:G:491:ILE:HG13	2.17	0.44
1:G:864:PRO:N	1:G:865:PRO:HD2	2.32	0.44
1:G:937:CYS:HB3	1:G:1053:ILE:HG22	1.98	0.44
1:G:1943:LEU:HD13	1:G:2098:VAL:HG22	1.99	0.44
1:G:3052:HIS:C	1:G:3053:ARG:HD2	2.38	0.44
1:G:4655:PHE:O	1:G:4659:ILE:HG12	2.17	0.44
1:G:5017:ARG:HD3	1:G:5019:TRP:CZ2	2.52	0.44
1:J:861:ILE:HD12	1:J:934:ALA:HA	2.00	0.44
1:J:2758:PHE:O	1:J:2762:THR:HG23	2.17	0.44
1:J:3836:MET:HE2	1:J:3836:MET:HB2	1.91	0.44
1:B:246:TYR:CE1	1:B:373:LYS:HE3	2.52	0.44
1:B:3979:SER:O	1:B:3983:SER:OG	2.31	0.44
1:E:24:CYS:HB2	1:E:200:TRP:CE3	2.53	0.44
1:E:553:ARG:NH1	1:E:555:GLU:OE2	2.48	0.44
1:E:2978:GLU:HB3	1:E:3056:LEU:HD11	1.99	0.44
1:E:4097:MET:SD	1:E:4108:ILE:HG23	2.56	0.44
1:E:5017:ARG:HD3	1:E:5019:TRP:CZ2	2.52	0.44
1:G:861:ILE:HD12	1:G:934:ALA:HA	2.00	0.44
1:G:913:LEU:HD11	1:G:922:LEU:HD11	2.00	0.44
1:G:936:GLY:HA3	1:G:1056:PRO:HB3	1.99	0.44
1:G:3018:LEU:HD13	1:G:3150:HIS:CE1	2.51	0.44
1:G:3038:MET:C	1:G:3038:MET:HE2	2.37	0.44
1:J:426:ARG:H	1:J:506:TYR:HA	1.82	0.44
1:J:1943:LEU:HD13	1:J:2098:VAL:HG22	2.00	0.44
1:J:4157:ASP:H	1:J:4161:ARG:HH21	1.66	0.44
3:M:101:PRO:HD2	3:M:104:TYR:O	2.17	0.44
1:B:2283:ASN:HB3	1:B:2286:LEU:HB2	1.99	0.44
1:B:2765:LYS:NZ	1:B:2860:PRO:HA	2.32	0.44
1:B:3372:VAL:HG12	1:B:3398:PHE:CZ	2.52	0.44
1:B:4920:PHE:O	1:B:4924:VAL:HG22	2.17	0.44
1:E:2886:TRP:HA	1:E:2889:LYS:HG2	1.99	0.44
1:E:3651:ASN:O	1:E:3655:GLU:HG2	2.18	0.44
1:E:4666:VAL:O	1:E:4670:ILE:HG12	2.18	0.44
1:G:23:GLN:HB3	1:G:34:LYS:HG2	1.99	0.44
1:G:1667:LEU:O	1:G:1671:ARG:HG3	2.18	0.44
1:G:1860:LYS:O	1:G:1864:LYS:HG2	2.18	0.44
1:G:2420:HIS:HB2	1:G:2492:ALA:HA	1.99	0.44
1:G:3148:ALA:HB2	1:G:3200:ALA:HB2	1.98	0.44
1:G:3372:VAL:HG12	1:G:3398:PHE:CZ	2.52	0.44
1:G:4157:ASP:H	1:G:4161:ARG:HH21	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:871:ARG:HB2	1:J:925:SER:HB3	1.99	0.44
1:J:1667:LEU:O	1:J:1671:ARG:HG3	2.18	0.44
1:J:2978:GLU:HB3	1:J:3056:LEU:HD11	1.99	0.44
1:B:1274:HIS:O	1:B:1559:GLN:NE2	2.33	0.44
1:B:3038:MET:C	1:B:3038:MET:HE2	2.37	0.44
1:B:3327:LEU:HD22	1:B:3368:ARG:CZ	2.47	0.44
1:E:936:GLY:HA3	1:E:1056:PRO:HB3	2.00	0.44
1:E:3039:ILE:O	1:E:3043:PHE:HD1	2.00	0.44
1:E:3040:THR:OG1	1:E:3080:VAL:HG12	2.18	0.44
1:G:173:SER:HB2	1:G:176:SER:O	2.17	0.44
1:G:728:ARG:NH2	1:G:1489:CYS:SG	2.90	0.44
1:G:1123:VAL:HG12	1:G:1132:TRP:HB3	1.99	0.44
1:G:4090:LYS:HZ1	1:G:4115:SER:HB2	1.81	0.44
1:G:4920:PHE:O	1:G:4924:VAL:HG22	2.17	0.44
1:J:131:LEU:O	1:J:178:ARG:NH2	2.46	0.44
1:J:340:LYS:HB2	1:J:344:SER:HB3	1.99	0.44
1:J:728:ARG:NH2	1:J:1489:CYS:SG	2.90	0.44
1:J:913:LEU:HD11	1:J:922:LEU:HD11	1.99	0.44
1:J:2765:LYS:NZ	1:J:2860:PRO:HA	2.32	0.44
1:J:3039:ILE:O	1:J:3043:PHE:HD1	2.00	0.44
1:J:3052:HIS:C	1:J:3053:ARG:HD2	2.38	0.44
3:F:104:TYR:CE1	3:F:106:PRO:HG3	2.46	0.44
1:B:613:ALA:HB1	1:B:618:GLN:HE22	1.83	0.44
1:B:864:PRO:N	1:B:865:PRO:HD2	2.32	0.44
1:B:874:LEU:O	1:B:878:ILE:HG12	2.17	0.44
1:B:3207:GLU:HG3	1:B:3246:LEU:HD21	1.99	0.44
1:B:4157:ASP:H	1:B:4161:ARG:HH21	1.66	0.44
1:E:3209:GLN:HG2	1:E:3210:LEU:HG	1.98	0.44
1:G:247:TYR:HD2	1:G:372:LEU:HB3	1.80	0.44
1:G:3039:ILE:O	1:G:3043:PHE:HD1	2.00	0.44
1:G:3327:LEU:HD22	1:G:3368:ARG:CZ	2.47	0.44
1:J:24:CYS:HB2	1:J:200:TRP:CE3	2.53	0.44
1:J:3651:ASN:O	1:J:3655:GLU:HG2	2.18	0.44
1:J:4028:LEU:HD23	1:J:4146:LEU:HD13	2.00	0.44
1:B:4118:ASP:OD1	1:B:4119:GLU:N	2.49	0.44
1:B:4157:ASP:HB3	1:B:4160:LEU:HB3	2.00	0.44
1:E:2686:LEU:HD22	1:E:2696:TYR:CZ	2.52	0.44
1:E:3049:LEU:HB3	1:E:3057:PHE:CE1	2.53	0.44
1:E:4120:ASN:HB2	1:E:4122:MET:HG2	2.00	0.44
1:G:2765:LYS:HA	1:G:2765:LYS:HD3	1.67	0.44
1:G:2765:LYS:NZ	1:G:2860:PRO:HA	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2813:LEU:HA	1:G:2816:MET:SD	2.58	0.44
1:G:4666:VAL:O	1:G:4670:ILE:HG12	2.18	0.44
1:G:4767:TRP:O	1:G:4767:TRP:HD1	1.99	0.44
1:J:936:GLY:HA3	1:J:1056:PRO:HB3	1.99	0.44
1:J:2813:LEU:HA	1:J:2816:MET:SD	2.58	0.44
1:J:3318:ASN:O	1:J:3322:ILE:HG12	2.17	0.44
2:D:25:HIS:HB3	2:D:40:ARG:CZ	2.47	0.44
3:M:30:SER:HB3	3:M:99:ARG:CB	2.48	0.44
1:B:1667:LEU:O	1:B:1671:ARG:HG3	2.18	0.44
1:B:1758:ARG:NH2	1:B:2036:GLN:OE1	2.51	0.44
1:B:1860:LYS:O	1:B:1864:LYS:HG2	2.18	0.44
1:B:3040:THR:OG1	1:B:3080:VAL:HG12	2.18	0.44
1:B:3052:HIS:C	1:B:3053:ARG:HD2	2.38	0.44
1:B:4065:PHE:HA	1:B:4068:LEU:HB2	1.99	0.44
1:B:4069:LYS:O	1:B:4072:VAL:HG12	2.17	0.44
1:B:4666:VAL:O	1:B:4670:ILE:HG12	2.18	0.44
1:E:4032:GLU:HG3	1:E:5006:GLN:HE21	1.81	0.44
1:E:4157:ASP:H	1:E:4161:ARG:HH21	1.65	0.44
1:G:131:LEU:O	1:G:178:ARG:NH2	2.46	0.44
1:G:499:THR:HG23	1:G:502:HIS:H	1.83	0.44
1:G:735:GLN:OE1	1:G:735:GLN:HA	2.18	0.44
1:G:2886:TRP:HA	1:G:2889:LYS:HG2	1.99	0.44
1:G:3989:VAL:HG13	1:G:4023:MET:HE2	1.98	0.44
1:J:173:SER:HB2	1:J:176:SER:O	2.17	0.44
1:J:487:VAL:O	1:J:491:ILE:HG13	2.17	0.44
1:J:917:GLU:CB	3:K:104:TYR:HE2	2.23	0.44
1:J:1123:VAL:HG12	1:J:1132:TRP:HB3	1.99	0.44
1:J:4118:ASP:OD1	1:J:4119:GLU:N	2.49	0.44
1:B:924:MET:CE	3:C:106:PRO:HB2	2.48	0.44
1:B:1738:LEU:HD12	1:B:1738:LEU:HA	1.80	0.44
1:B:2010:LEU:HD12	1:B:3656:SER:HB2	2.00	0.44
1:B:2813:LEU:HA	1:B:2816:MET:SD	2.58	0.44
1:B:3039:ILE:O	1:B:3043:PHE:HD1	2.00	0.44
1:B:4945:ASP:O	1:B:4948:GLU:HG3	2.18	0.44
1:E:874:LEU:O	1:E:878:ILE:HG12	2.17	0.44
1:E:1815:LEU:HD22	1:E:1845:VAL:HG21	2.00	0.44
1:E:1828:ASP:N	1:E:1828:ASP:OD1	2.51	0.44
1:E:2801:ASP:HA	1:E:2804:ILE:HG12	1.99	0.44
1:E:3207:GLU:HG3	1:E:3246:LEU:HD21	1.99	0.44
1:E:3459:VAL:HG11	1:E:3505:VAL:HG11	1.99	0.44
1:G:3352:GLU:H	1:G:3352:GLU:CD	2.22	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3546:ASP:O	1:G:3550:ARG:HG2	2.18	0.44
1:J:23:GLN:HB3	1:J:34:LYS:HG2	1.99	0.44
1:J:2538:THR:O	1:J:2542:SER:N	2.42	0.44
1:J:3040:THR:OG1	1:J:3080:VAL:HG12	2.18	0.44
1:J:3207:GLU:HG3	1:J:3246:LEU:HD21	1.99	0.44
1:J:4120:ASN:HB2	1:J:4122:MET:HG2	2.00	0.44
1:B:298:GLY:HA3	1:B:378:LEU:H	1.83	0.44
1:B:661:LYS:HG2	1:B:749:ASP:OD1	2.16	0.44
1:B:2686:LEU:HD22	1:B:2696:TYR:CZ	2.52	0.44
1:B:2825:LYS:HG3	1:B:2935:TYR:CE1	2.53	0.44
1:B:3844:LEU:HD11	1:E:76:ARG:HH21	1.83	0.44
1:E:913:LEU:HD11	1:E:922:LEU:HD11	1.99	0.44
1:E:2713:ASP:HA	1:E:2954:ARG:HD3	2.00	0.44
1:E:4157:ASP:HB3	1:E:4160:LEU:HB3	2.00	0.44
1:G:917:GLU:CB	3:M:104:TYR:HE2	2.25	0.44
1:G:2702:CYS:O	1:G:2706:ILE:HD13	2.17	0.44
1:G:3207:GLU:HG3	1:G:3246:LEU:HD21	1.99	0.44
1:G:3318:ASN:O	1:G:3322:ILE:HG12	2.17	0.44
1:G:3969:ILE:HG21	1:G:3980:LEU:HD12	2.00	0.44
1:J:298:GLY:HA3	1:J:378:LEU:H	1.83	0.44
1:J:613:ALA:HB1	1:J:618:GLN:HE22	1.83	0.44
1:J:2352:VAL:O	1:J:2356:LEU:HG	2.18	0.44
1:J:2886:TRP:HA	1:J:2889:LYS:HG2	1.99	0.44
1:J:3420:ARG:NH1	1:J:3516:LYS:O	2.51	0.44
1:J:4069:LYS:O	1:J:4072:VAL:HG12	2.17	0.44
2:H:17:LYS:N	2:H:20:GLN:OE1	2.49	0.44
1:B:340:LYS:HB2	1:B:344:SER:HB3	1.99	0.43
1:B:1694:LEU:HB3	1:B:1715:LEU:HD12	1.99	0.43
1:B:2420:HIS:HB2	1:B:2492:ALA:HA	1.99	0.43
1:B:3100:SER:HB2	1:B:3167:ARG:NH2	2.33	0.43
1:E:3372:VAL:HG12	1:E:3398:PHE:CZ	2.52	0.43
1:E:4118:ASP:OD1	1:E:4119:GLU:N	2.49	0.43
1:E:4145:VAL:HG22	1:E:4178:LEU:HD13	2.00	0.43
1:G:1758:ARG:NH2	1:G:2036:GLN:OE1	2.51	0.43
1:G:4157:ASP:HB3	1:G:4160:LEU:HB3	2.00	0.43
1:J:133:PHE:HB2	1:J:193:ALA:HB3	2.00	0.43
1:J:864:PRO:N	1:J:865:PRO:HD2	2.32	0.43
1:J:1860:LYS:O	1:J:1864:LYS:HG2	2.18	0.43
1:J:3546:ASP:O	1:J:3550:ARG:HG2	2.18	0.43
1:J:4157:ASP:HB3	1:J:4160:LEU:HB3	2.00	0.43
2:D:17:LYS:N	2:D:20:GLN:OE1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:861:ILE:HD12	1:B:934:ALA:HA	2.00	0.43
1:B:877:ASN:O	1:B:881:LEU:HG	2.18	0.43
1:B:1123:VAL:HG12	1:B:1132:TRP:HB3	1.99	0.43
1:B:1828:ASP:N	1:B:1828:ASP:OD1	2.51	0.43
1:B:2280:VAL:HG21	1:B:2290:LEU:HD11	2.00	0.43
1:B:3049:LEU:HB3	1:B:3057:PHE:CE1	2.53	0.43
1:B:3352:GLU:CD	1:B:3352:GLU:H	2.21	0.43
1:B:3366:ARG:NH1	1:B:3437:MET:SD	2.91	0.43
1:B:3989:VAL:HG13	1:B:4023:MET:CE	2.47	0.43
1:E:23:GLN:HB3	1:E:34:LYS:HG2	1.99	0.43
1:E:1758:ARG:NH2	1:E:2036:GLN:OE1	2.51	0.43
1:E:1860:LYS:O	1:E:1864:LYS:HG2	2.18	0.43
1:E:4068:LEU:HD23	1:E:4068:LEU:HA	1.90	0.43
1:E:4920:PHE:O	1:E:4924:VAL:HG22	2.17	0.43
1:G:877:ASN:O	1:G:881:LEU:HG	2.18	0.43
1:G:1694:LEU:HB3	1:G:1715:LEU:HD12	1.99	0.43
1:G:2825:LYS:HG3	1:G:2935:TYR:CE1	2.53	0.43
1:G:3262:ARG:HB2	1:G:3325:ASN:ND2	2.34	0.43
1:J:2686:LEU:HD22	1:J:2696:TYR:CZ	2.52	0.43
1:J:3366:ARG:NH1	1:J:3437:MET:SD	2.91	0.43
1:J:3435:PHE:HZ	1:J:3602:VAL:HG21	1.81	0.43
1:J:4731:ILE:HD13	1:J:4731:ILE:HA	1.88	0.43
1:J:4920:PHE:O	1:J:4924:VAL:HG22	2.17	0.43
1:B:499:THR:HG23	1:B:502:HIS:H	1.83	0.43
1:B:2702:CYS:O	1:B:2706:ILE:HD13	2.17	0.43
1:B:2801:ASP:HA	1:B:2804:ILE:HG12	1.99	0.43
1:B:3398:PHE:CE1	1:B:3451:PHE:HB2	2.54	0.43
1:B:3651:ASN:O	1:B:3655:GLU:HG2	2.18	0.43
1:E:20:VAL:HG12	1:E:22:LEU:H	1.83	0.43
1:E:173:SER:HB2	1:E:176:SER:O	2.17	0.43
1:E:861:ILE:HD12	1:E:934:ALA:HA	2.00	0.43
1:E:2312:MET:H	1:E:2312:MET:HG3	1.70	0.43
1:E:2758:PHE:O	1:E:2762:THR:HG23	2.17	0.43
1:E:3352:GLU:CD	1:E:3352:GLU:H	2.22	0.43
1:E:3546:ASP:O	1:E:3550:ARG:HG2	2.18	0.43
1:E:4945:ASP:O	1:E:4948:GLU:HG3	2.18	0.43
1:G:2325:PRO:HG2	1:G:2422:ILE:HD13	2.00	0.43
1:G:2686:LEU:HD22	1:G:2696:TYR:CZ	2.52	0.43
1:G:3040:THR:OG1	1:G:3080:VAL:HG12	2.18	0.43
1:G:3420:ARG:NH1	1:G:3516:LYS:O	2.51	0.43
1:G:4949:GLN:NE2	1:G:4953:ASP:OD2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:20:VAL:HG12	1:J:22:LEU:H	1.83	0.43
1:J:1828:ASP:N	1:J:1828:ASP:OD1	2.51	0.43
1:J:2894:LEU:HD21	1:J:2901:THR:HA	2.00	0.43
1:J:3372:VAL:HG12	1:J:3398:PHE:CZ	2.53	0.43
1:J:3398:PHE:CE1	1:J:3451:PHE:HB2	2.54	0.43
1:J:3944:GLU:HG2	1:J:3946:GLN:H	1.83	0.43
1:J:3969:ILE:HG21	1:J:3980:LEU:HD12	2.00	0.43
1:J:4065:PHE:HA	1:J:4068:LEU:HB2	1.99	0.43
1:B:553:ARG:NH1	1:B:555:GLU:OE2	2.48	0.43
1:B:1993:ARG:O	1:B:1997:GLU:HG2	2.19	0.43
1:B:3262:ARG:HB2	1:B:3325:ASN:ND2	2.34	0.43
1:B:3546:ASP:O	1:B:3550:ARG:HG2	2.18	0.43
1:B:3562:LYS:HE2	1:B:3562:LYS:HB2	1.81	0.43
1:B:4077:PHE:HE1	1:B:4088:ILE:HG12	1.84	0.43
1:E:901:LYS:HG2	1:E:901:LYS:O	2.18	0.43
1:E:1667:LEU:O	1:E:1671:ARG:HG3	2.18	0.43
1:E:1694:LEU:HB3	1:E:1715:LEU:HD12	1.99	0.43
1:E:2283:ASN:HB3	1:E:2286:LEU:HB2	1.99	0.43
1:E:2813:LEU:HA	1:E:2816:MET:SD	2.58	0.43
1:E:4676:GLU:O	1:E:4680:LYS:HG2	2.19	0.43
1:G:2713:ASP:HA	1:G:2954:ARG:HD3	2.00	0.43
1:J:477:LEU:O	1:J:480:GLU:HG3	2.19	0.43
1:J:901:LYS:O	1:J:901:LYS:HG2	2.18	0.43
1:J:1694:LEU:HB3	1:J:1715:LEU:HD12	1.99	0.43
1:J:4666:VAL:O	1:J:4670:ILE:HG12	2.18	0.43
3:K:104:TYR:CD1	3:K:104:TYR:C	2.92	0.43
1:B:2431:ASP:HB2	1:B:2501:SER:HB2	2.01	0.43
1:B:3406:TYR:HE1	1:B:3509:LEU:HG	1.83	0.43
1:E:877:ASN:O	1:E:881:LEU:HG	2.18	0.43
1:E:2568:LEU:HD12	1:E:2568:LEU:O	2.19	0.43
1:E:2765:LYS:HD3	1:E:2765:LYS:HA	1.67	0.43
1:E:2773:ASN:OD1	1:J:1508:ARG:NH2	2.39	0.43
1:E:2894:LEU:HD21	1:E:2901:THR:HA	2.01	0.43
1:E:3060:ASP:O	1:E:3064:VAL:HG23	2.19	0.43
1:E:3350:ARG:NE	1:E:3350:ARG:HA	2.34	0.43
1:E:3366:ARG:NH1	1:E:3437:MET:SD	2.91	0.43
1:E:3398:PHE:CE1	1:E:3451:PHE:HB2	2.53	0.43
1:E:3408:LEU:HD12	1:E:3408:LEU:HA	1.81	0.43
1:E:4574:ASN:ND2	1:E:4810:ALA:HA	2.29	0.43
1:G:24:CYS:HB2	1:G:200:TRP:CE3	2.53	0.43
1:G:1828:ASP:N	1:G:1828:ASP:OD1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3944:GLU:HG2	1:G:3946:GLN:H	1.83	0.43
1:J:247:TYR:HD2	1:J:372:LEU:O	2.01	0.43
1:J:365:LYS:O	1:J:369:LEU:HG	2.18	0.43
1:J:2283:ASN:HB3	1:J:2286:LEU:HB2	1.99	0.43
1:J:3408:LEU:HA	1:J:3408:LEU:HD12	1.81	0.43
1:B:1032:LYS:HB3	1:B:1036:ARG:NH2	2.33	0.43
1:B:2764:GLU:HG3	1:B:2857:PRO:HG3	2.01	0.43
1:B:4949:GLN:NE2	1:B:4953:ASP:OD2	2.52	0.43
1:E:246:TYR:HE1	1:E:375:LYS:HZ3	1.66	0.43
1:E:735:GLN:HA	1:E:735:GLN:OE1	2.18	0.43
1:E:1559:GLN:NE2	1:E:1559:GLN:O	2.52	0.43
1:E:2452:ARG:O	1:E:2456:ILE:HG13	2.19	0.43
1:E:2825:LYS:HG3	1:E:2935:TYR:CE1	2.53	0.43
1:E:2867:LEU:HD12	1:E:2867:LEU:HA	1.82	0.43
1:E:4077:PHE:HE1	1:E:4088:ILE:HG12	1.84	0.43
1:E:4090:LYS:HZ1	1:E:4115:SER:HB2	1.84	0.43
1:G:20:VAL:HG12	1:G:22:LEU:H	1.83	0.43
1:G:133:PHE:HB2	1:G:193:ALA:HB3	2.00	0.43
1:G:1032:LYS:HB3	1:G:1036:ARG:NH2	2.33	0.43
1:G:1993:ARG:O	1:G:1997:GLU:HG2	2.19	0.43
1:G:3350:ARG:NE	1:G:3350:ARG:HA	2.34	0.43
1:G:3366:ARG:NH1	1:G:3437:MET:SD	2.91	0.43
1:G:4028:LEU:HD23	1:G:4146:LEU:HD13	2.00	0.43
1:G:4069:LYS:O	1:G:4072:VAL:HG12	2.17	0.43
1:G:4945:ASP:O	1:G:4948:GLU:HG3	2.18	0.43
1:J:1559:GLN:NE2	1:J:1559:GLN:O	2.52	0.43
1:J:2431:ASP:HB2	1:J:2501:SER:HB2	2.01	0.43
1:J:2568:LEU:HD12	1:J:2568:LEU:O	2.19	0.43
1:J:4077:PHE:HE1	1:J:4088:ILE:HG12	1.84	0.43
1:B:20:VAL:HG12	1:B:22:LEU:H	1.83	0.43
1:B:24:CYS:HB2	1:B:200:TRP:CE3	2.53	0.43
1:B:913:LEU:HD11	1:B:922:LEU:HD11	1.99	0.43
1:B:1815:LEU:HD22	1:B:1845:VAL:HG21	2.00	0.43
1:B:2352:VAL:O	1:B:2356:LEU:HG	2.18	0.43
1:B:2713:ASP:HA	1:B:2954:ARG:HD3	2.00	0.43
1:B:3459:VAL:HG11	1:B:3505:VAL:HG11	1.99	0.43
1:B:3962:PHE:O	1:B:3966:THR:HG23	2.19	0.43
1:B:4120:ASN:HB2	1:B:4122:MET:HG2	2.00	0.43
1:E:1032:LYS:HB3	1:E:1036:ARG:NH2	2.33	0.43
1:E:1993:ARG:O	1:E:1997:GLU:HG2	2.19	0.43
1:E:2352:VAL:O	1:E:2356:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2969:ILE:O	1:E:2972:GLU:HG3	2.19	0.43
1:E:3100:SER:HB2	1:E:3167:ARG:NH2	2.33	0.43
1:E:4184:MET:HA	1:E:4190:ILE:HD13	2.01	0.43
1:G:298:GLY:HA3	1:G:378:LEU:H	1.83	0.43
1:G:365:LYS:O	1:G:369:LEU:HG	2.19	0.43
1:G:901:LYS:O	1:G:901:LYS:HG2	2.18	0.43
1:G:2264:GLY:O	1:G:2268:GLN:HG2	2.19	0.43
1:G:2431:ASP:HB2	1:G:2501:SER:HB2	2.01	0.43
1:G:2452:ARG:O	1:G:2456:ILE:HG13	2.19	0.43
1:G:2894:LEU:HD21	1:G:2901:THR:HA	2.01	0.43
1:G:3546:ASP:N	1:G:3546:ASP:OD1	2.52	0.43
1:J:735:GLN:OE1	1:J:735:GLN:HA	2.18	0.43
1:J:1032:LYS:HB3	1:J:1036:ARG:NH2	2.33	0.43
1:J:3049:LEU:HB3	1:J:3057:PHE:CE1	2.53	0.43
1:J:3060:ASP:O	1:J:3064:VAL:HG23	2.19	0.43
1:J:3352:GLU:CD	1:J:3352:GLU:H	2.22	0.43
1:J:3401:LEU:HD23	1:J:3401:LEU:HA	1.80	0.43
3:K:32:ASN:OD1	3:K:33:SER:N	2.52	0.43
1:B:882:TRP:NE1	1:B:886:ARG:CZ	2.82	0.43
1:B:3969:ILE:HG21	1:B:3980:LEU:HD12	2.01	0.43
1:B:4028:LEU:HD23	1:B:4146:LEU:HD13	1.99	0.43
1:E:133:PHE:HB2	1:E:193:ALA:HB3	2.00	0.43
1:E:477:LEU:O	1:E:480:GLU:HG3	2.19	0.43
1:E:996:TRP:HA	1:E:999:ASP:OD2	2.19	0.43
1:E:1123:VAL:HG12	1:E:1132:TRP:HB3	1.99	0.43
1:E:1943:LEU:HD13	1:E:2098:VAL:HG22	2.00	0.43
1:E:2431:ASP:HB2	1:E:2501:SER:HB2	2.01	0.43
1:E:3268:HIS:CE1	1:E:3272:ILE:HG13	2.54	0.43
1:G:477:LEU:O	1:G:480:GLU:HG3	2.19	0.43
1:G:882:TRP:NE1	1:G:886:ARG:CZ	2.82	0.43
1:G:2655:TYR:OH	1:G:2671:GLU:OE2	2.31	0.43
1:G:3100:SER:HB2	1:G:3167:ARG:NH2	2.33	0.43
1:G:3651:ASN:O	1:G:3655:GLU:HG2	2.18	0.43
1:J:1815:LEU:HD22	1:J:1845:VAL:HG21	2.00	0.43
1:J:2420:HIS:HB2	1:J:2492:ALA:HA	1.99	0.43
1:J:3262:ARG:HB2	1:J:3325:ASN:ND2	2.34	0.43
1:J:3292:PRO:HA	1:J:3293:PRO:HD3	1.91	0.43
1:J:4676:GLU:O	1:J:4680:LYS:HG2	2.19	0.43
1:J:4945:ASP:O	1:J:4948:GLU:HG3	2.18	0.43
3:C:92:VAL:HG12	3:C:122:GLN:OE1	2.19	0.43
3:K:39:GLN:OE1	3:K:45:ARG:NH2	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:863:LEU:O	1:B:867:LEU:HG	2.19	0.43
1:B:917:GLU:CB	3:C:104:TYR:HE2	2.25	0.43
1:B:1559:GLN:NE2	1:B:1559:GLN:O	2.52	0.43
1:B:1943:LEU:HD13	1:B:2098:VAL:HG22	2.00	0.43
1:B:2264:GLY:O	1:B:2268:GLN:HG2	2.19	0.43
1:B:4184:MET:HA	1:B:4190:ILE:HD13	2.01	0.43
1:B:4813:LEU:HD23	1:B:4813:LEU:HA	1.85	0.43
1:B:4998:LYS:HB2	1:B:4998:LYS:HE3	1.72	0.43
1:E:623:GLU:HG2	2:D:88:PRO:HB3	2.00	0.43
1:E:882:TRP:NE1	1:E:886:ARG:CZ	2.82	0.43
1:G:70:GLU:HG2	1:G:71:GLN:HG3	2.01	0.43
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.54	0.43
1:G:623:GLU:HG2	2:H:88:PRO:HB3	2.01	0.43
1:G:1012:ASP:HB3	1:G:1015:ALA:HB3	2.01	0.43
1:G:2909:ASP:OD1	1:G:2909:ASP:N	2.52	0.43
1:G:3039:ILE:O	1:G:3043:PHE:CD1	2.72	0.43
1:G:3060:ASP:O	1:G:3064:VAL:HG23	2.19	0.43
1:G:3266:MET:O	1:G:3270:ILE:HG12	2.19	0.43
1:G:4060:LYS:HA	1:G:4063:ASP:OD2	2.19	0.43
1:G:4077:PHE:HE1	1:G:4088:ILE:HG12	1.84	0.43
1:G:4676:GLU:O	1:G:4680:LYS:HG2	2.19	0.43
1:J:1537:ASN:OD1	1:J:1537:ASN:N	2.47	0.43
1:J:2264:GLY:O	1:J:2268:GLN:HG2	2.19	0.43
1:J:2924:GLN:O	1:J:2928:LYS:HG2	2.19	0.43
1:J:4687:TYR:OH	1:J:4699:GLY:O	2.36	0.43
3:F:13:GLN:OE1	3:F:13:GLN:N	2.37	0.43
3:M:32:ASN:OD1	3:M:33:SER:N	2.52	0.43
1:B:133:PHE:HB2	1:B:193:ALA:HB3	2.00	0.43
1:B:745:SER:HB2	1:B:758:ARG:HG2	2.01	0.43
1:B:3039:ILE:O	1:B:3043:PHE:CD1	2.72	0.43
1:B:3060:ASP:O	1:B:3064:VAL:HG23	2.19	0.43
1:B:3268:HIS:CE1	1:B:3272:ILE:HG13	2.54	0.43
1:B:3350:ARG:NE	1:B:3350:ARG:HA	2.34	0.43
1:B:3722:TYR:OH	1:B:3782:MET:HG3	2.19	0.43
1:E:2420:HIS:HB2	1:E:2492:ALA:HA	1.99	0.43
1:E:2765:LYS:HZ2	1:E:2860:PRO:HA	1.83	0.43
1:E:3207:GLU:HG3	1:E:3246:LEU:CD2	2.49	0.43
1:G:1559:GLN:NE2	1:G:1559:GLN:O	2.52	0.43
1:G:1708:ARG:O	1:G:1712:TYR:HD1	2.02	0.43
1:G:1964:ARG:O	1:G:1968:LYS:NZ	2.46	0.43
1:G:2352:VAL:O	1:G:2356:LEU:HG	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3722:TYR:OH	1:G:3782:MET:HG3	2.19	0.43
1:G:3987:ASP:N	1:G:3987:ASP:OD1	2.52	0.43
1:G:4120:ASN:HB2	1:G:4122:MET:HG2	2.00	0.43
1:J:1993:ARG:O	1:J:1997:GLU:HG2	2.19	0.43
1:J:2010:LEU:HD12	1:J:3656:SER:HB2	2.00	0.43
1:J:2713:ASP:HA	1:J:2954:ARG:HD3	2.00	0.43
1:J:2825:LYS:HG3	1:J:2935:TYR:CE1	2.53	0.43
1:J:2909:ASP:N	1:J:2909:ASP:OD1	2.52	0.43
1:J:3100:SER:HB2	1:J:3167:ARG:NH2	2.33	0.43
1:J:3546:ASP:N	1:J:3546:ASP:OD1	2.52	0.43
1:J:4145:VAL:HG22	1:J:4178:LEU:HD13	2.00	0.43
1:J:4949:GLN:NE2	1:J:4953:ASP:OD2	2.52	0.43
3:F:30:SER:HB3	3:F:99:ARG:CB	2.49	0.43
1:B:2924:GLN:O	1:B:2928:LYS:HG2	2.19	0.42
1:B:3207:GLU:HG3	1:B:3246:LEU:CD2	2.49	0.42
1:B:3266:MET:O	1:B:3270:ILE:HG12	2.19	0.42
1:E:340:LYS:HB2	1:E:344:SER:HB3	1.99	0.42
1:E:377:ILE:HG22	1:E:378:LEU:N	2.34	0.42
1:E:3183:VAL:HG23	1:E:3187:ARG:HE	1.84	0.42
1:E:3266:MET:O	1:E:3270:ILE:HG12	2.19	0.42
1:E:3315:LEU:O	1:E:3319:ILE:HG13	2.19	0.42
1:E:3760:LYS:O	1:E:3764:LEU:HG	2.19	0.42
1:E:3944:GLU:HG2	1:E:3946:GLN:H	1.83	0.42
1:G:280:LEU:N	1:G:314:PHE:O	2.49	0.42
1:G:924:MET:HE1	3:M:106:PRO:HB2	2.00	0.42
1:G:2280:VAL:HG21	1:G:2290:LEU:HD11	2.00	0.42
1:G:3398:PHE:CE1	1:G:3451:PHE:HB2	2.54	0.42
1:G:3459:VAL:HG11	1:G:3505:VAL:HG11	1.99	0.42
1:G:3546:ASP:HA	1:G:3549:VAL:HG22	2.00	0.42
1:G:4772:ASP:O	1:G:4776:GLN:HG2	2.19	0.42
1:J:499:THR:HG23	1:J:502:HIS:H	1.83	0.42
1:J:882:TRP:NE1	1:J:886:ARG:CZ	2.82	0.42
1:J:1101:ARG:HG3	1:J:1125:ASN:HB2	2.01	0.42
1:J:2280:VAL:HG21	1:J:2290:LEU:HD11	2.00	0.42
1:J:3722:TYR:OH	1:J:3782:MET:HG3	2.19	0.42
2:D:36:PHE:HZ	2:D:97:LEU:HD22	1.84	0.42
1:B:901:LYS:O	1:B:901:LYS:HG2	2.18	0.42
1:B:2894:LEU:HD21	1:B:2901:THR:HA	2.00	0.42
1:B:3034:LYS:O	1:B:3038:MET:HG3	2.19	0.42
1:B:3315:LEU:O	1:B:3319:ILE:HG13	2.19	0.42
1:B:4209:GLN:H	1:B:4209:GLN:HG3	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:140:ASP:OD1	1:E:140:ASP:N	2.49	0.42
1:E:2764:GLU:HG3	1:E:2857:PRO:HG3	2.01	0.42
1:E:3034:LYS:O	1:E:3038:MET:HG3	2.19	0.42
1:E:3262:ARG:HB2	1:E:3325:ASN:ND2	2.34	0.42
1:G:1561:VAL:HG23	1:G:1562:ILE:H	1.85	0.42
1:G:2010:LEU:HD12	1:G:3656:SER:HB2	2.00	0.42
1:G:2615:ARG:HB3	1:G:2618:MET:SD	2.59	0.42
1:G:2924:GLN:O	1:G:2928:LYS:HG2	2.19	0.42
1:G:3268:HIS:CE1	1:G:3272:ILE:HG13	2.54	0.42
1:G:4184:MET:HA	1:G:4190:ILE:HD13	2.01	0.42
1:J:280:LEU:N	1:J:314:PHE:O	2.49	0.42
1:J:745:SER:HB2	1:J:758:ARG:HG2	2.01	0.42
1:J:2452:ARG:O	1:J:2456:ILE:HG13	2.19	0.42
1:J:2514:ASN:HB3	1:J:2517:PHE:HB3	2.01	0.42
1:J:2878:LEU:HG	1:J:2882:TYR:CE2	2.55	0.42
1:J:3039:ILE:O	1:J:3043:PHE:CD1	2.72	0.42
1:J:3183:VAL:HG23	1:J:3187:ARG:HE	1.84	0.42
1:J:3768:SER:O	1:J:3772:THR:OG1	2.29	0.42
1:J:4772:ASP:O	1:J:4776:GLN:HG2	2.19	0.42
1:J:4813:LEU:HD23	1:J:4813:LEU:HA	1.85	0.42
3:F:92:VAL:HG12	3:F:122:GLN:OE1	2.19	0.42
3:K:28:ILE:HD12	3:K:28:ILE:HA	1.89	0.42
3:K:92:VAL:HG12	3:K:122:GLN:OE1	2.19	0.42
1:B:477:LEU:O	1:B:480:GLU:HG3	2.19	0.42
1:B:1668:ARG:HG3	1:B:1671:ARG:HH12	1.84	0.42
1:B:2538:THR:O	1:B:2542:SER:N	2.42	0.42
1:B:3334:TRP:HA	1:B:3337:ARG:HE	1.85	0.42
1:B:3546:ASP:OD1	1:B:3546:ASP:N	2.52	0.42
1:B:3944:GLU:HG2	1:B:3946:GLN:H	1.83	0.42
1:B:4676:GLU:O	1:B:4680:LYS:HG2	2.19	0.42
1:E:2280:VAL:HG21	1:E:2290:LEU:HD11	2.00	0.42
1:E:3406:TYR:HE1	1:E:3509:LEU:HG	1.83	0.42
1:E:3722:TYR:OH	1:E:3782:MET:HG3	2.19	0.42
1:E:3969:ILE:HG21	1:E:3980:LEU:HD12	2.00	0.42
1:E:4090:LYS:N	1:E:4121:GLU:O	2.53	0.42
1:G:863:LEU:O	1:G:867:LEU:HG	2.19	0.42
1:G:996:TRP:HA	1:G:999:ASP:OD2	2.19	0.42
1:G:1668:ARG:HG3	1:G:1671:ARG:HH12	1.84	0.42
1:G:1738:LEU:HD12	1:G:1738:LEU:HA	1.80	0.42
1:G:2514:ASN:HB3	1:G:2517:PHE:HB3	2.01	0.42
1:G:2801:ASP:HA	1:G:2804:ILE:HG12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3050:VAL:HB	1:G:3054:VAL:HG12	2.01	0.42
1:G:4698:LYS:HE3	1:G:4698:LYS:HB2	1.88	0.42
1:J:877:ASN:O	1:J:881:LEU:HG	2.18	0.42
1:J:882:TRP:O	1:J:885:THR:OG1	2.25	0.42
1:J:1012:ASP:HB3	1:J:1015:ALA:HB3	2.01	0.42
1:J:1561:VAL:HG23	1:J:1562:ILE:H	1.85	0.42
1:J:2969:ILE:O	1:J:2972:GLU:HG3	2.19	0.42
1:J:3546:ASP:HA	1:J:3549:VAL:HG22	2.00	0.42
1:J:3989:VAL:HG13	1:J:4023:MET:HE2	2.01	0.42
3:F:32:ASN:OD1	3:F:33:SER:N	2.52	0.42
1:B:735:GLN:OE1	1:B:735:GLN:HA	2.18	0.42
1:B:955:LEU:HD11	1:B:965:TYR:HA	2.00	0.42
1:B:996:TRP:HA	1:B:999:ASP:OD2	2.19	0.42
1:B:2615:ARG:HB3	1:B:2618:MET:SD	2.59	0.42
1:E:246:TYR:HE1	1:E:375:LYS:NZ	2.17	0.42
1:E:1668:ARG:HG3	1:E:1671:ARG:HH12	1.84	0.42
1:E:1708:ARG:O	1:E:1712:TYR:HD1	2.02	0.42
1:E:2264:GLY:O	1:E:2268:GLN:HG2	2.19	0.42
1:E:2799:GLU:O	1:E:2803:GLU:HG2	2.20	0.42
1:E:3530:GLN:OE1	1:E:3530:GLN:N	2.52	0.42
1:G:951:LYS:HE2	1:G:951:LYS:HB3	1.84	0.42
1:G:955:LEU:HD11	1:G:965:TYR:HA	2.00	0.42
1:G:2656:CYS:SG	1:G:2658:PRO:HD2	2.60	0.42
1:G:3034:LYS:O	1:G:3038:MET:HG3	2.19	0.42
1:G:3760:LYS:O	1:G:3764:LEU:HG	2.19	0.42
1:G:4065:PHE:HA	1:G:4068:LEU:HB2	1.99	0.42
1:J:883:ALA:O	1:J:887:ILE:HG13	2.20	0.42
1:J:955:LEU:HD11	1:J:965:TYR:HA	2.00	0.42
1:J:996:TRP:HA	1:J:999:ASP:OD2	2.19	0.42
1:J:1668:ARG:HG3	1:J:1671:ARG:HH12	1.84	0.42
1:J:2312:MET:H	1:J:2312:MET:HG3	1.69	0.42
1:J:2519:LEU:HD22	1:J:2575:ARG:HG3	2.02	0.42
1:J:3266:MET:O	1:J:3270:ILE:HG12	2.19	0.42
1:J:3443:ILE:HG22	1:J:3605:HIS:CG	2.55	0.42
1:J:3678:SER:HA	1:J:3696:ASP:OD2	2.20	0.42
1:J:3916:ILE:O	1:J:3920:VAL:HG23	2.20	0.42
1:J:4160:LEU:O	1:J:4164:LEU:HG	2.20	0.42
1:J:4184:MET:HA	1:J:4190:ILE:HD13	2.01	0.42
2:H:22:CYS:HB2	2:H:48:PHE:CE1	2.54	0.42
3:F:39:GLN:OE1	3:F:45:ARG:NH2	2.39	0.42
1:B:1864:LYS:HE3	1:B:1872:THR:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1870:VAL:HG11	1:B:2097:LEU:HD22	2.02	0.42
1:B:3704:HIS:O	1:B:3708:THR:HG23	2.20	0.42
1:B:4090:LYS:N	1:B:4121:GLU:O	2.53	0.42
1:B:4145:VAL:HG22	1:B:4178:LEU:HD13	2.00	0.42
1:E:499:THR:HG23	1:E:502:HIS:H	1.83	0.42
1:E:2325:PRO:HG2	1:E:2422:ILE:HD13	2.00	0.42
1:E:2965:ARG:HE	1:E:2965:ARG:HB3	1.57	0.42
1:E:3443:ILE:HG22	1:E:3605:HIS:CG	2.55	0.42
1:E:3987:ASP:N	1:E:3987:ASP:OD1	2.52	0.42
1:E:4028:LEU:HD23	1:E:4146:LEU:HD13	2.00	0.42
1:E:4725:LEU:HA	1:E:4737:ILE:HG21	2.02	0.42
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.83	0.42
1:G:745:SER:HB2	1:G:758:ARG:HG2	2.01	0.42
1:G:1815:LEU:HD22	1:G:1845:VAL:HG21	2.00	0.42
1:G:2568:LEU:HD12	1:G:2568:LEU:O	2.19	0.42
1:G:2799:GLU:O	1:G:2803:GLU:HG2	2.20	0.42
1:G:3406:TYR:HE1	1:G:3509:LEU:HG	1.83	0.42
1:G:3916:ILE:O	1:G:3920:VAL:HG23	2.20	0.42
1:G:4152:GLU:OE1	1:G:4194:TYR:OH	2.28	0.42
1:J:2325:PRO:HG2	1:J:2422:ILE:HD13	2.00	0.42
1:J:2656:CYS:SG	1:J:2658:PRO:HD2	2.60	0.42
1:J:2765:LYS:HZ2	1:J:2860:PRO:HA	1.84	0.42
1:J:3050:VAL:HB	1:J:3054:VAL:HG12	2.01	0.42
1:J:3970:GLN:NE2	1:J:5004:THR:HA	2.33	0.42
1:J:4966:ASP:OD1	1:J:4966:ASP:N	2.53	0.42
1:B:70:GLU:HG2	1:B:71:GLN:HG3	2.01	0.42
1:B:131:LEU:O	1:B:178:ARG:NH2	2.46	0.42
1:B:1101:ARG:HG3	1:B:1125:ASN:HB2	2.02	0.42
1:B:2519:LEU:HD22	1:B:2575:ARG:HG3	2.02	0.42
1:B:2656:CYS:SG	1:B:2658:PRO:HD2	2.60	0.42
1:B:3043:PHE:HZ	1:B:3071:LEU:O	2.03	0.42
1:B:3050:VAL:HB	1:B:3054:VAL:HG12	2.01	0.42
1:B:3443:ILE:HG22	1:B:3605:HIS:CG	2.55	0.42
1:B:3518:LEU:N	1:B:3519:PRO:HD2	2.35	0.42
1:B:3678:SER:HA	1:B:3696:ASP:OD2	2.20	0.42
1:B:3762:ARG:NH2	1:B:4755:GLU:O	2.53	0.42
1:B:3987:ASP:OD1	1:B:3987:ASP:N	2.52	0.42
1:E:372:LEU:O	1:E:374:LYS:HG3	2.20	0.42
1:E:745:SER:HB2	1:E:758:ARG:HG2	2.01	0.42
1:E:863:LEU:O	1:E:867:LEU:HG	2.19	0.42
1:E:2010:LEU:HD12	1:E:3656:SER:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2815:ALA:HB1	1:E:2881:ASN:ND2	2.34	0.42
1:E:2878:LEU:HG	1:E:2882:TYR:CE2	2.54	0.42
1:E:2924:GLN:O	1:E:2928:LYS:HG2	2.19	0.42
1:E:3518:LEU:N	1:E:3519:PRO:HD2	2.35	0.42
1:E:4209:GLN:H	1:E:4209:GLN:HG3	1.65	0.42
1:G:3443:ILE:HG22	1:G:3605:HIS:CG	2.55	0.42
1:G:3592:ILE:O	1:G:3596:VAL:HG22	2.19	0.42
1:G:3678:SER:HA	1:G:3696:ASP:OD2	2.20	0.42
1:G:4063:ASP:OD1	1:G:4064:MET:N	2.53	0.42
1:J:1708:ARG:O	1:J:1712:TYR:HD1	2.02	0.42
1:J:2624:ARG:HH11	1:J:2903:PRO:HA	1.84	0.42
1:J:3406:TYR:HE1	1:J:3509:LEU:HG	1.83	0.42
1:J:3760:LYS:O	1:J:3764:LEU:HG	2.19	0.42
1:J:4063:ASP:OD1	1:J:4064:MET:N	2.53	0.42
3:M:82:MET:SD	3:M:83:ASN:N	2.93	0.42
1:B:581:ASN:OD1	1:B:581:ASN:N	2.53	0.42
1:B:2815:ALA:HB1	1:B:2881:ASN:ND2	2.34	0.42
1:B:3183:VAL:HG23	1:B:3187:ARG:HE	1.84	0.42
1:B:3458:PHE:CE2	1:B:3464:ILE:HD11	2.55	0.42
1:B:3592:ILE:O	1:B:3596:VAL:HG22	2.19	0.42
1:B:4060:LYS:HA	1:B:4063:ASP:OD2	2.19	0.42
1:B:4725:LEU:HA	1:B:4737:ILE:HG21	2.02	0.42
1:B:4772:ASP:O	1:B:4776:GLN:HG2	2.19	0.42
1:E:371:VAL:HG12	1:E:373:LYS:H	1.85	0.42
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.54	0.42
1:E:883:ALA:O	1:E:887:ILE:HG13	2.20	0.42
1:E:3039:ILE:O	1:E:3043:PHE:CD1	2.72	0.42
1:E:3420:ARG:NH1	1:E:3516:LYS:O	2.51	0.42
1:E:3704:HIS:O	1:E:3708:THR:HG23	2.20	0.42
1:E:4949:GLN:NE2	1:E:4953:ASP:OD2	2.52	0.42
1:G:1101:ARG:HG3	1:G:1125:ASN:HB2	2.02	0.42
1:G:2764:GLU:HG3	1:G:2857:PRO:HG3	2.01	0.42
1:G:3049:LEU:HB3	1:G:3057:PHE:CE1	2.53	0.42
1:G:4846:VAL:HG13	1:J:4813:LEU:HD13	2.01	0.42
1:J:863:LEU:O	1:J:867:LEU:HG	2.19	0.42
1:J:1076:ARG:HB3	1:J:1191:VAL:HG23	2.01	0.42
1:J:2615:ARG:HB3	1:J:2618:MET:SD	2.59	0.42
1:J:3034:LYS:O	1:J:3038:MET:HG3	2.19	0.42
1:J:3268:HIS:CE1	1:J:3272:ILE:HG13	2.54	0.42
1:J:3300:ALA:HB3	1:J:3301:PRO:HD3	2.01	0.42
1:J:3315:LEU:O	1:J:3319:ILE:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3350:ARG:NE	1:J:3350:ARG:HA	2.34	0.42
1:J:4698:LYS:HE3	1:J:4698:LYS:HB2	1.88	0.42
1:J:4995:LEU:HD21	1:J:5007:GLU:HB3	2.02	0.42
3:C:32:ASN:OD1	3:C:33:SER:N	2.52	0.42
3:C:100:VAL:HG22	3:C:105:ASN:HB2	2.01	0.42
3:K:30:SER:HB3	3:K:99:ARG:CB	2.48	0.42
3:K:38:ARG:NH1	3:K:89:ASP:OD1	2.52	0.42
3:K:82:MET:SD	3:K:83:ASN:N	2.93	0.42
1:B:663:TYR:OH	1:B:758:ARG:NH2	2.53	0.42
1:B:2969:ILE:O	1:B:2972:GLU:HG3	2.19	0.42
1:E:73:LEU:O	1:E:106:ALA:N	2.46	0.42
1:E:955:LEU:HD11	1:E:965:TYR:HA	2.00	0.42
1:E:2627:VAL:HB	1:E:2678:LEU:HD11	2.01	0.42
1:E:2656:CYS:SG	1:E:2658:PRO:HD2	2.60	0.42
1:E:3261:ALA:HB1	1:E:3321:ARG:HB3	2.02	0.42
1:E:3546:ASP:HA	1:E:3549:VAL:HG22	2.00	0.42
1:G:247:TYR:HD2	1:G:372:LEU:O	2.02	0.42
1:G:306:LYS:H	1:G:306:LYS:HG2	1.69	0.42
1:G:1864:LYS:HE3	1:G:1872:THR:HA	2.01	0.42
1:G:3183:VAL:HG23	1:G:3187:ARG:HE	1.85	0.42
1:J:2867:LEU:HD22	1:J:2928:LYS:HZ3	1.85	0.42
1:J:3043:PHE:HZ	1:J:3071:LEU:O	2.03	0.42
1:J:4090:LYS:N	1:J:4121:GLU:O	2.53	0.42
2:A:36:PHE:HZ	2:A:97:LEU:HD22	1.84	0.42
2:A:41:ASP:OD1	2:A:42:ARG:N	2.53	0.42
3:F:104:TYR:CD1	3:F:104:TYR:C	2.92	0.42
3:M:92:VAL:HG12	3:M:122:GLN:OE1	2.19	0.42
1:B:2325:PRO:HG2	1:B:2422:ILE:HD13	2.00	0.42
1:B:2627:VAL:HB	1:B:2678:LEU:HD11	2.01	0.42
1:B:3261:ALA:HB1	1:B:3321:ARG:HB3	2.02	0.42
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.53	0.42
1:B:4759:ASP:OD1	1:B:4759:ASP:N	2.53	0.42
1:E:1683:HIS:NE2	1:E:1798:LEU:O	2.52	0.42
1:E:2485:LEU:HD23	1:E:2485:LEU:HA	1.95	0.42
1:E:3043:PHE:HZ	1:E:3071:LEU:O	2.02	0.42
1:E:3458:PHE:CE2	1:E:3464:ILE:HD11	2.55	0.42
1:E:4087:LEU:HB3	1:E:4122:MET:HB2	2.01	0.42
1:G:389:PHE:HD1	1:G:390:LEU:N	2.18	0.42
1:G:1508:ARG:NH2	1:J:2773:ASN:OD1	2.42	0.42
1:G:2815:ALA:HB1	1:G:2881:ASN:ND2	2.34	0.42
1:G:3043:PHE:HZ	1:G:3071:LEU:O	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3458:PHE:CE2	1:G:3464:ILE:HD11	2.55	0.42
1:G:4759:ASP:N	1:G:4759:ASP:OD1	2.53	0.42
1:G:4966:ASP:OD1	1:G:4966:ASP:N	2.53	0.42
1:J:389:PHE:HD1	1:J:390:LEU:N	2.18	0.42
1:J:2815:ALA:HB1	1:J:2881:ASN:ND2	2.34	0.42
1:J:3518:LEU:N	1:J:3519:PRO:HD2	2.35	0.42
3:F:82:MET:SD	3:F:83:ASN:N	2.93	0.42
1:B:794:GLY:HA2	1:B:810:PRO:HB3	2.02	0.42
1:B:1012:ASP:HB3	1:B:1015:ALA:HB3	2.01	0.42
1:B:2452:ARG:O	1:B:2456:ILE:HG13	2.19	0.42
1:B:2568:LEU:HD12	1:B:2568:LEU:O	2.19	0.42
1:B:2799:GLU:O	1:B:2803:GLU:HG2	2.20	0.42
1:B:3077:ALA:HB3	1:B:3078:ARG:NH1	2.35	0.42
1:B:4087:LEU:HB3	1:B:4122:MET:HB2	2.01	0.42
1:E:1973:GLN:OE1	1:E:3641:LEU:HB2	2.20	0.42
1:E:2615:ARG:HB3	1:E:2618:MET:SD	2.59	0.42
1:E:3011:THR:OG1	1:E:3070:ILE:HG12	2.20	0.42
1:E:3016:TYR:HE2	1:E:3030:HIS:HB3	1.84	0.42
1:E:3194:LEU:O	1:E:3197:LEU:HG	2.20	0.42
1:E:3272:ILE:C	1:E:3275:PRO:HD2	2.40	0.42
1:E:3546:ASP:OD1	1:E:3546:ASP:N	2.52	0.42
1:E:3878:ASP:O	1:E:3882:GLN:HG3	2.20	0.42
1:E:4552:LEU:HD22	1:E:4663:CYS:SG	2.60	0.42
1:G:883:ALA:O	1:G:887:ILE:HG13	2.20	0.42
1:G:1699:GLU:HG3	1:G:1810:LYS:HE3	2.02	0.42
1:G:1927:LEU:HD13	1:G:2097:LEU:HD11	2.02	0.42
1:G:2380:ILE:O	1:G:2384:ILE:HG13	2.20	0.42
1:G:2624:ARG:HH11	1:G:2903:PRO:HA	1.84	0.42
1:G:2690:LYS:HE3	1:G:2690:LYS:HB2	1.91	0.42
1:G:3062:PRO:HA	1:G:3065:VAL:HG22	2.02	0.42
1:G:3194:LEU:O	1:G:3197:LEU:HG	2.20	0.42
1:G:3261:ALA:HB1	1:G:3321:ARG:HB3	2.02	0.42
1:G:3518:LEU:N	1:G:3519:PRO:HD2	2.35	0.42
1:G:4131:ARG:HG3	1:G:4132:PHE:CD2	2.55	0.42
1:G:4145:VAL:HG22	1:G:4178:LEU:HD13	2.00	0.42
1:J:451:TYR:CZ	1:J:474:ARG:HD2	2.54	0.42
1:J:747:CYS:HB2	1:J:808:TYR:CE2	2.55	0.42
1:J:882:TRP:CD1	1:J:886:ARG:CZ	3.03	0.42
1:J:1445:PRO:HG2	1:J:1501:VAL:HG21	2.02	0.42
1:J:2627:VAL:HB	1:J:2678:LEU:HD11	2.01	0.42
1:J:3207:GLU:HG3	1:J:3246:LEU:CD2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3564:GLU:H	1:J:3564:GLU:HG3	1.73	0.42
1:J:3592:ILE:O	1:J:3596:VAL:HG22	2.19	0.42
1:J:3962:PHE:O	1:J:3966:THR:HG23	2.20	0.42
1:J:4995:LEU:HD23	1:J:4995:LEU:HA	1.83	0.42
2:H:41:ASP:OD1	2:H:42:ARG:N	2.53	0.42
2:I:22:CYS:HB2	2:I:48:PHE:CE1	2.54	0.42
2:I:36:PHE:HZ	2:I:97:LEU:HD22	1.84	0.42
3:C:38:ARG:NH1	3:C:89:ASP:OD1	2.52	0.42
1:B:2328:GLY:HA3	1:B:2425:PHE:CE2	2.55	0.41
1:E:979:PRO:HA	1:E:982:THR:HG22	2.02	0.41
1:E:1302:ARG:H	1:E:1302:ARG:HG2	1.66	0.41
1:E:2519:LEU:HD22	1:E:2575:ARG:HG3	2.02	0.41
1:E:2624:ARG:HH11	1:E:2903:PRO:HA	1.84	0.41
1:E:2909:ASP:N	1:E:2909:ASP:OD1	2.52	0.41
1:E:3075:LEU:H	1:E:3146:HIS:CE1	2.38	0.41
1:E:3693:LYS:HZ2	1:E:3694:LYS:HD2	1.85	0.41
1:E:4060:LYS:HA	1:E:4063:ASP:OD2	2.19	0.41
1:E:4772:ASP:O	1:E:4776:GLN:HG2	2.19	0.41
1:G:663:TYR:CE1	1:G:745:SER:HB3	2.55	0.41
1:G:1445:PRO:HG2	1:G:1501:VAL:HG21	2.02	0.41
1:G:2878:LEU:HG	1:G:2882:TYR:CE2	2.54	0.41
1:G:3016:TYR:HE2	1:G:3030:HIS:HB3	1.84	0.41
1:G:3206:LEU:O	1:G:3208:PRO:HD3	2.20	0.41
1:G:3207:GLU:HG3	1:G:3246:LEU:CD2	2.49	0.41
1:G:3334:TRP:HA	1:G:3337:ARG:HE	1.85	0.41
1:G:3762:ARG:NH2	1:G:4755:GLU:O	2.53	0.41
1:J:1132:TRP:CE2	1:J:1136:SER:HB2	2.55	0.41
1:J:1934:SER:O	1:J:1938:GLN:HG2	2.20	0.41
1:J:3077:ALA:HB3	1:J:3078:ARG:NH1	2.35	0.41
1:J:3704:HIS:O	1:J:3708:THR:HG23	2.20	0.41
1:J:3762:ARG:NH2	1:J:4755:GLU:O	2.53	0.41
1:J:3987:ASP:OD1	1:J:3987:ASP:N	2.52	0.41
1:J:4060:LYS:HA	1:J:4063:ASP:OD2	2.19	0.41
1:J:4131:ARG:HG3	1:J:4132:PHE:CD2	2.55	0.41
1:J:4552:LEU:HD22	1:J:4663:CYS:SG	2.60	0.41
1:J:4759:ASP:N	1:J:4759:ASP:OD1	2.53	0.41
2:A:26:TYR:HA	2:A:100:ASP:O	2.20	0.41
2:D:41:ASP:OD1	2:D:42:ARG:N	2.53	0.41
1:B:140:ASP:OD1	1:B:140:ASP:N	2.49	0.41
1:B:365:LYS:HE2	1:B:369:LEU:HD11	2.01	0.41
1:B:979:PRO:HA	1:B:982:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1561:VAL:HG23	1:B:1562:ILE:H	1.85	0.41
1:B:3010:PHE:O	1:B:3014:CYS:HB2	2.20	0.41
1:B:3850:GLN:HE21	1:B:3870:ASN:H	1.68	0.41
1:E:732:SER:O	1:E:735:GLN:HG2	2.20	0.41
1:E:1101:ARG:HG3	1:E:1125:ASN:HB2	2.02	0.41
1:E:2514:ASN:HB3	1:E:2517:PHE:HB3	2.01	0.41
1:E:3050:VAL:HB	1:E:3054:VAL:HG12	2.01	0.41
1:E:3850:GLN:HE21	1:E:3870:ASN:H	1.68	0.41
1:E:3916:ILE:O	1:E:3920:VAL:HG23	2.20	0.41
1:G:1076:ARG:HB3	1:G:1191:VAL:HG23	2.01	0.41
1:G:1973:GLN:OE1	1:G:3641:LEU:HB2	2.20	0.41
1:G:2519:LEU:HD22	1:G:2575:ARG:HG3	2.02	0.41
1:G:3110:LEU:HD23	1:G:3183:VAL:HG12	2.02	0.41
1:G:3300:ALA:HB3	1:G:3301:PRO:HD3	2.01	0.41
1:G:3315:LEU:O	1:G:3319:ILE:HG13	2.19	0.41
1:J:246:TYR:HE1	1:J:375:LYS:NZ	2.16	0.41
1:J:1927:LEU:HD13	1:J:2097:LEU:HD11	2.02	0.41
1:J:2357:LEU:HD23	1:J:2357:LEU:HA	1.92	0.41
1:J:2380:ILE:O	1:J:2384:ILE:HG13	2.20	0.41
1:J:2799:GLU:O	1:J:2803:GLU:HG2	2.20	0.41
1:J:3272:ILE:C	1:J:3275:PRO:HD2	2.41	0.41
1:J:3327:LEU:HD13	1:J:3368:ARG:NH1	2.36	0.41
1:J:3458:PHE:CE2	1:J:3464:ILE:HD11	2.55	0.41
1:J:3526:ALA:HB2	1:J:3576:TYR:CE2	2.56	0.41
1:J:4214:LYS:HE2	1:J:4214:LYS:HB3	1.92	0.41
3:M:105:ASN:OD1	3:M:111:ASN:HB2	2.19	0.41
1:B:1708:ARG:O	1:B:1712:TYR:HD1	2.02	0.41
1:B:2380:ILE:O	1:B:2384:ILE:HG13	2.20	0.41
1:B:2610:LEU:O	1:B:2614:ILE:HG12	2.20	0.41
1:B:2661:TRP:CZ3	1:B:2664:PHE:HD2	2.38	0.41
1:B:2878:LEU:HG	1:B:2882:TYR:CE2	2.54	0.41
1:B:3206:LEU:O	1:B:3208:PRO:HD3	2.20	0.41
1:B:3760:LYS:O	1:B:3764:LEU:HG	2.19	0.41
1:B:3916:ILE:O	1:B:3920:VAL:HG23	2.20	0.41
1:B:4178:LEU:HD11	1:B:4194:TYR:HB3	2.02	0.41
1:E:50:GLU:HA	1:E:51:PRO:HD3	1.94	0.41
1:E:2610:LEU:O	1:E:2614:ILE:HG12	2.20	0.41
1:E:3334:TRP:HA	1:E:3337:ARG:HE	1.84	0.41
1:E:3526:ALA:HB2	1:E:3576:TYR:CE2	2.56	0.41
1:E:3562:LYS:HB2	1:E:3562:LYS:HE2	1.81	0.41
1:E:3678:SER:HA	1:E:3696:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3762:ARG:NH2	1:E:4755:GLU:O	2.53	0.41
1:E:4157:ASP:O	1:E:4161:ARG:HG2	2.21	0.41
1:E:4838:VAL:O	1:E:4841:VAL:HG12	2.21	0.41
1:E:4851:TYR:HD1	1:E:4916:PHE:CE1	2.38	0.41
1:G:581:ASN:N	1:G:581:ASN:OD1	2.53	0.41
1:G:1870:VAL:HG11	1:G:2097:LEU:HD22	2.02	0.41
1:G:2463:LEU:O	1:G:2467:VAL:HG23	2.21	0.41
1:G:2633:LEU:HB3	1:G:2689:LYS:HZ1	1.85	0.41
1:G:3272:ILE:C	1:G:3275:PRO:HD2	2.41	0.41
1:G:3458:PHE:HE2	1:G:3464:ILE:HD11	1.85	0.41
1:G:3850:GLN:NE2	1:G:3870:ASN:H	2.19	0.41
1:G:3878:ASP:O	1:G:3882:GLN:HG3	2.20	0.41
1:G:4091:LYS:NZ	1:G:4092:ASP:OD1	2.48	0.41
1:G:4995:LEU:HD21	1:G:5007:GLU:HB3	2.02	0.41
1:J:794:GLY:HA2	1:J:810:PRO:HB3	2.02	0.41
1:J:1758:ARG:NH2	1:J:2036:GLN:OE1	2.51	0.41
1:J:3562:LYS:HE2	1:J:3562:LYS:HB2	1.81	0.41
1:J:3639:THR:N	1:J:3640:PRO:HD2	2.36	0.41
1:J:3979:SER:O	1:J:3983:SER:OG	2.31	0.41
1:J:4178:LEU:HD11	1:J:4194:TYR:HB3	2.03	0.41
1:J:4679:ARG:HH21	1:J:5017:ARG:NH1	2.18	0.41
2:A:22:CYS:HB2	2:A:48:PHE:CE1	2.54	0.41
1:B:73:LEU:HD12	1:B:73:LEU:HA	1.92	0.41
1:B:623:GLU:HG2	2:A:88:PRO:HB3	2.01	0.41
1:B:2514:ASN:HB3	1:B:2517:PHE:HB3	2.01	0.41
1:B:2624:ARG:HH11	1:B:2903:PRO:HA	1.84	0.41
1:B:2657:LEU:H	1:B:2711:PRO:HG3	1.85	0.41
1:B:3075:LEU:H	1:B:3146:HIS:CE1	2.38	0.41
1:B:3546:ASP:HA	1:B:3549:VAL:HG22	2.01	0.41
1:B:3850:GLN:NE2	1:B:3870:ASN:H	2.19	0.41
1:E:70:GLU:HG2	1:E:71:GLN:HG3	2.01	0.41
1:E:1934:SER:O	1:E:1938:GLN:HG2	2.20	0.41
1:E:2328:GLY:HA3	1:E:2425:PHE:CE2	2.55	0.41
1:E:2532:ALA:O	1:E:2536:LEU:HD23	2.21	0.41
1:E:3639:THR:N	1:E:3640:PRO:HD2	2.36	0.41
1:E:4160:LEU:O	1:E:4164:LEU:HG	2.20	0.41
1:G:882:TRP:CD1	1:G:886:ARG:CZ	3.03	0.41
1:G:1132:TRP:CE2	1:G:1136:SER:HB2	2.56	0.41
1:G:1934:SER:O	1:G:1938:GLN:HG2	2.20	0.41
1:G:2610:LEU:O	1:G:2614:ILE:HG12	2.20	0.41
1:G:2627:VAL:HB	1:G:2678:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2657:LEU:H	1:G:2711:PRO:HG3	1.85	0.41
1:G:3077:ALA:HB3	1:G:3078:ARG:NH1	2.35	0.41
1:G:4068:LEU:HD23	1:G:4068:LEU:HA	1.89	0.41
1:G:4090:LYS:N	1:G:4121:GLU:O	2.53	0.41
1:G:4552:LEU:HD22	1:G:4663:CYS:SG	2.60	0.41
3:C:82:MET:SD	3:C:83:ASN:N	2.93	0.41
3:M:104:TYR:CE1	3:M:106:PRO:HG3	2.55	0.41
1:B:451:TYR:CZ	1:B:474:ARG:HD2	2.54	0.41
1:B:1132:TRP:CE2	1:B:1136:SER:HB2	2.56	0.41
1:B:2463:LEU:O	1:B:2467:VAL:HG23	2.21	0.41
1:B:3194:LEU:O	1:B:3197:LEU:HG	2.20	0.41
1:B:3272:ILE:C	1:B:3275:PRO:HD2	2.40	0.41
1:B:3836:MET:HE2	1:B:3836:MET:HB2	1.88	0.41
1:B:4131:ARG:HG3	1:B:4132:PHE:CD2	2.55	0.41
1:B:4160:LEU:O	1:B:4164:LEU:HG	2.20	0.41
1:E:1132:TRP:CE2	1:E:1136:SER:HB2	2.56	0.41
1:E:2661:TRP:CZ3	1:E:2664:PHE:HD2	2.38	0.41
1:E:3420:ARG:HD2	1:E:3519:PRO:HG2	2.03	0.41
1:E:4063:ASP:OD1	1:E:4064:MET:N	2.53	0.41
1:E:4131:ARG:HG3	1:E:4132:PHE:CD2	2.55	0.41
1:G:246:TYR:HE1	1:G:375:LYS:NZ	2.16	0.41
1:G:979:PRO:HA	1:G:982:THR:HG22	2.02	0.41
1:G:3509:LEU:HD23	1:G:3509:LEU:HA	1.88	0.41
1:G:3850:GLN:HE21	1:G:3870:ASN:H	1.68	0.41
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.20	0.41
1:G:4188:ARG:HA	1:G:4188:ARG:NE	2.35	0.41
1:J:247:TYR:HD2	1:J:372:LEU:HB3	1.81	0.41
1:J:663:TYR:CE1	1:J:745:SER:HB3	2.55	0.41
1:J:663:TYR:OH	1:J:758:ARG:NH2	2.53	0.41
1:J:3010:PHE:O	1:J:3014:CYS:HB2	2.20	0.41
1:J:3062:PRO:HA	1:J:3065:VAL:HG22	2.02	0.41
1:J:3765:TYR:CZ	1:J:3769:ARG:HD3	2.56	0.41
1:J:4652:LEU:O	1:J:4656:LEU:HG	2.21	0.41
2:D:22:CYS:HB2	2:D:48:PHE:CE1	2.54	0.41
1:B:110:ARG:HD3	1:B:115:ARG:HE	1.86	0.41
1:B:389:PHE:HD1	1:B:390:LEU:N	2.18	0.41
1:B:732:SER:O	1:B:735:GLN:HG2	2.20	0.41
1:B:1076:ARG:HB3	1:B:1191:VAL:HG23	2.01	0.41
1:B:1302:ARG:H	1:B:1302:ARG:HG2	1.66	0.41
1:B:2867:LEU:HD12	1:B:2867:LEU:HA	1.82	0.41
1:B:3327:LEU:HD22	1:B:3368:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3878:ASP:O	1:B:3882:GLN:HG3	2.20	0.41
1:B:4552:LEU:HD22	1:B:4663:CYS:SG	2.60	0.41
1:E:355:LEU:HD22	1:E:379:HIS:HA	2.03	0.41
1:E:389:PHE:HD1	1:E:390:LEU:N	2.18	0.41
1:E:1699:GLU:HG3	1:E:1810:LYS:HE3	2.02	0.41
1:E:1870:VAL:HG11	1:E:2097:LEU:HD22	2.02	0.41
1:E:2380:ILE:O	1:E:2384:ILE:HG13	2.20	0.41
1:E:2463:LEU:O	1:E:2467:VAL:HG23	2.21	0.41
1:E:3110:LEU:HD23	1:E:3183:VAL:HG12	2.02	0.41
1:E:3592:ILE:O	1:E:3596:VAL:HG22	2.19	0.41
1:E:4759:ASP:OD1	1:E:4759:ASP:N	2.53	0.41
1:G:568:LEU:HD12	1:G:602:VAL:HG13	2.03	0.41
1:G:1115:LEU:HD23	1:G:1123:VAL:HG21	2.03	0.41
1:G:4087:LEU:HB3	1:G:4122:MET:HB2	2.01	0.41
1:G:4178:LEU:HD11	1:G:4194:TYR:HB3	2.03	0.41
1:J:355:LEU:HD22	1:J:379:HIS:HA	2.03	0.41
1:J:568:LEU:HD12	1:J:602:VAL:HG13	2.03	0.41
1:J:1699:GLU:HG3	1:J:1810:LYS:HE3	2.02	0.41
1:J:1973:GLN:OE1	1:J:3641:LEU:HB2	2.20	0.41
1:J:3038:MET:HE2	1:J:3038:MET:C	2.40	0.41
1:J:3334:TRP:HA	1:J:3337:ARG:HE	1.84	0.41
1:J:4666:VAL:HG21	1:J:4783:ILE:HD11	2.03	0.41
1:J:4725:LEU:HA	1:J:4737:ILE:HG21	2.02	0.41
2:I:41:ASP:OD1	2:I:42:ARG:N	2.53	0.41
1:B:1927:LEU:HD13	1:B:2097:LEU:HD11	2.02	0.41
1:B:1973:GLN:OE1	1:B:3641:LEU:HB2	2.20	0.41
1:B:2532:ALA:O	1:B:2536:LEU:HD23	2.21	0.41
1:B:3327:LEU:HD13	1:B:3368:ARG:NH1	2.36	0.41
1:B:3526:ALA:HB2	1:B:3576:TYR:CE2	2.56	0.41
1:B:4838:VAL:O	1:B:4841:VAL:HG12	2.21	0.41
1:B:4851:TYR:HD1	1:B:4916:PHE:CE1	2.38	0.41
1:E:1012:ASP:HB3	1:E:1015:ALA:HB3	2.01	0.41
1:E:1076:ARG:HB3	1:E:1191:VAL:HG23	2.01	0.41
1:E:3300:ALA:HB3	1:E:3301:PRO:HD3	2.01	0.41
1:E:4541:TRP:O	1:E:4544:LEU:HG	2.21	0.41
1:G:110:ARG:HD3	1:G:115:ARG:HE	1.86	0.41
1:G:172:VAL:HA	1:G:178:ARG:O	2.21	0.41
1:G:663:TYR:OH	1:G:758:ARG:NH2	2.53	0.41
1:G:1619:ARG:HE	1:G:1619:ARG:HB2	1.72	0.41
1:G:2969:ILE:O	1:G:2972:GLU:HG3	2.19	0.41
1:G:3292:PRO:HA	1:G:3293:PRO:HD3	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3562:LYS:HE2	1:G:3562:LYS:HB2	1.81	0.41
1:G:4160:LEU:O	1:G:4164:LEU:HG	2.20	0.41
1:G:4666:VAL:HG21	1:G:4783:ILE:HD11	2.03	0.41
1:J:979:PRO:HA	1:J:982:THR:HG22	2.02	0.41
1:J:2633:LEU:HB3	1:J:2689:LYS:HZ1	1.86	0.41
1:J:2764:GLU:HG3	1:J:2857:PRO:HG3	2.01	0.41
1:J:3141:THR:OG1	1:J:3193:CYS:SG	2.56	0.41
1:J:3261:ALA:HB1	1:J:3321:ARG:HB3	2.02	0.41
1:J:3420:ARG:HD2	1:J:3519:PRO:HG2	2.03	0.41
1:J:3850:GLN:NE2	1:J:3870:ASN:H	2.19	0.41
2:D:26:TYR:HA	2:D:100:ASP:O	2.21	0.41
2:I:26:TYR:HA	2:I:100:ASP:O	2.20	0.41
3:C:104:TYR:CE1	3:C:106:PRO:HG3	2.53	0.41
3:F:28:ILE:HD12	3:F:28:ILE:HA	1.89	0.41
1:B:747:CYS:HB2	1:B:808:TYR:CE2	2.55	0.41
1:B:883:ALA:O	1:B:887:ILE:HG13	2.20	0.41
1:B:1115:LEU:HD23	1:B:1123:VAL:HG21	2.03	0.41
1:B:2909:ASP:N	1:B:2909:ASP:OD1	2.52	0.41
1:B:3011:THR:OG1	1:B:3070:ILE:HG12	2.20	0.41
1:B:3016:TYR:HE2	1:B:3030:HIS:HB3	1.84	0.41
1:E:663:TYR:OH	1:E:758:ARG:NH2	2.53	0.41
1:E:1561:VAL:HG23	1:E:1562:ILE:H	1.84	0.41
1:E:1864:LYS:HE3	1:E:1872:THR:HA	2.02	0.41
1:E:1964:ARG:O	1:E:1968:LYS:NZ	2.46	0.41
1:E:3010:PHE:O	1:E:3014:CYS:HB2	2.20	0.41
1:E:3765:TYR:CZ	1:E:3769:ARG:HD3	2.56	0.41
1:E:3949:ARG:O	1:E:3953:LYS:HG3	2.21	0.41
1:G:50:GLU:HA	1:G:51:PRO:HD3	1.94	0.41
1:G:127:MET:O	1:G:130:LYS:NZ	2.50	0.41
1:G:747:CYS:HB2	1:G:808:TYR:CE2	2.55	0.41
1:G:3011:THR:OG1	1:G:3070:ILE:HG12	2.20	0.41
1:G:3704:HIS:O	1:G:3708:THR:HG23	2.20	0.41
1:G:4851:TYR:HD1	1:G:4916:PHE:CE1	2.38	0.41
1:J:2670:GLU:OE1	1:J:2673:HIS:HB3	2.21	0.41
1:J:3011:THR:OG1	1:J:3070:ILE:HG12	2.20	0.41
1:J:3016:TYR:HE2	1:J:3030:HIS:HB3	1.84	0.41
1:J:3075:LEU:H	1:J:3146:HIS:CE1	2.38	0.41
1:J:3277:LEU:HG	1:J:3341:PHE:HZ	1.86	0.41
1:J:3327:LEU:HD22	1:J:3368:ARG:NH1	2.36	0.41
1:J:4087:LEU:HB3	1:J:4122:MET:HB2	2.02	0.41
1:J:4157:ASP:O	1:J:4161:ARG:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4890:GLY:HA2	1:J:4900:GLU:OE2	2.21	0.41
2:H:36:PHE:HZ	2:H:97:LEU:HD22	1.84	0.41
3:C:101:PRO:HD2	3:C:104:TYR:O	2.20	0.41
3:C:104:TYR:CD1	3:C:104:TYR:C	2.94	0.41
1:B:424:LYS:HE2	1:B:424:LYS:HB2	1.85	0.41
1:B:684:VAL:HG22	1:B:781:VAL:HG12	2.02	0.41
1:B:1934:SER:O	1:B:1938:GLN:HG2	2.20	0.41
1:B:2536:LEU:HA	1:B:2541:PHE:HB3	2.03	0.41
1:B:2787:THR:OG1	1:B:2788:HIS:N	2.54	0.41
1:B:3420:ARG:HD2	1:B:3519:PRO:HG2	2.03	0.41
1:B:3445:TRP:HA	1:B:3451:PHE:CD1	2.49	0.41
1:B:4046:ASP:HA	1:B:4049:VAL:HG22	2.03	0.41
1:B:4157:ASP:O	1:B:4161:ARG:HG2	2.21	0.41
1:B:4188:ARG:HA	1:B:4188:ARG:NE	2.35	0.41
1:B:4995:LEU:HD21	1:B:5007:GLU:HB3	2.02	0.41
1:E:172:VAL:HA	1:E:178:ARG:O	2.21	0.41
1:E:568:LEU:HD12	1:E:602:VAL:HG13	2.03	0.41
1:E:747:CYS:HB2	1:E:808:TYR:CE2	2.55	0.41
1:E:882:TRP:CD1	1:E:886:ARG:CZ	3.03	0.41
1:E:1440:PHE:CD2	1:E:1560:ASN:HB3	2.56	0.41
1:E:1445:PRO:HG2	1:E:1501:VAL:HG21	2.02	0.41
1:E:3077:ALA:HB3	1:E:3078:ARG:NH1	2.35	0.41
1:E:3533:ILE:HG13	1:E:3533:ILE:H	1.74	0.41
1:E:4178:LEU:HD11	1:E:4194:TYR:HB3	2.03	0.41
1:E:4188:ARG:HA	1:E:4188:ARG:NE	2.35	0.41
1:E:4214:LYS:HE2	1:E:4214:LYS:HB3	1.91	0.41
1:E:4553:ASN:O	1:E:4557:ARG:HG3	2.21	0.41
1:E:4652:LEU:O	1:E:4656:LEU:HG	2.21	0.41
1:E:4679:ARG:HH21	1:E:5017:ARG:NH1	2.18	0.41
1:G:138:GLN:NE2	1:G:140:ASP:O	2.54	0.41
1:G:794:GLY:HA2	1:G:810:PRO:HB3	2.02	0.41
1:G:2532:ALA:O	1:G:2536:LEU:HD23	2.21	0.41
1:G:2661:TRP:CZ3	1:G:2664:PHE:HD2	2.39	0.41
1:G:3420:ARG:HD2	1:G:3519:PRO:HG2	2.03	0.41
1:G:3943:ILE:HD11	1:G:4002:LYS:HE2	2.03	0.41
1:G:4157:ASP:O	1:G:4161:ARG:HG2	2.20	0.41
1:G:4541:TRP:O	1:G:4544:LEU:HG	2.21	0.41
1:G:4890:GLY:HA2	1:G:4900:GLU:OE2	2.21	0.41
1:J:70:GLU:HG2	1:J:71:GLN:HG3	2.01	0.41
1:J:172:VAL:HA	1:J:178:ARG:O	2.21	0.41
1:J:684:VAL:HG22	1:J:781:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:732:SER:O	1:J:735:GLN:HG2	2.20	0.41
1:J:1115:LEU:HD23	1:J:1123:VAL:HG21	2.03	0.41
1:J:1864:LYS:HE3	1:J:1872:THR:HA	2.02	0.41
1:J:2325:PRO:HA	1:J:2425:PHE:CD2	2.56	0.41
1:J:2463:LEU:O	1:J:2467:VAL:HG23	2.21	0.41
1:J:2532:ALA:O	1:J:2536:LEU:HD23	2.21	0.41
1:J:2610:LEU:O	1:J:2614:ILE:HG12	2.20	0.41
1:J:2787:THR:OG1	1:J:2788:HIS:N	2.54	0.41
1:J:3194:LEU:O	1:J:3197:LEU:HG	2.20	0.41
1:J:3530:GLN:OE1	1:J:3530:GLN:N	2.52	0.41
1:J:3943:ILE:HD11	1:J:4002:LYS:HE2	2.03	0.41
1:J:4188:ARG:HA	1:J:4188:ARG:NE	2.35	0.41
1:J:4553:ASN:O	1:J:4557:ARG:HG3	2.21	0.41
1:B:355:LEU:HD22	1:B:379:HIS:HA	2.03	0.41
1:B:1445:PRO:HG2	1:B:1501:VAL:HG21	2.02	0.41
1:B:2325:PRO:HA	1:B:2425:PHE:CD2	2.56	0.41
1:B:2670:GLU:OE1	1:B:2673:HIS:HB3	2.21	0.41
1:B:3509:LEU:HD23	1:B:3509:LEU:HA	1.88	0.41
1:B:3530:GLN:OE1	1:B:3530:GLN:N	2.52	0.41
1:B:3949:ARG:O	1:B:3953:LYS:HG3	2.21	0.41
1:E:1927:LEU:HD13	1:E:2097:LEU:HD11	2.02	0.41
1:E:3016:TYR:CE2	1:E:3030:HIS:HB3	2.56	0.41
1:E:3327:LEU:HD13	1:E:3368:ARG:NH1	2.36	0.41
1:E:3458:PHE:HE2	1:E:3464:ILE:HD11	1.85	0.41
1:E:3568:SER:HA	1:E:3571:TRP:CD1	2.56	0.41
1:E:3844:LEU:HD11	1:J:76:ARG:HH21	1.86	0.41
1:E:4813:LEU:HD13	1:J:4846:VAL:HG13	2.03	0.41
1:E:4890:GLY:HA2	1:E:4900:GLU:OE2	2.21	0.41
1:G:2325:PRO:HA	1:G:2425:PHE:CD2	2.56	0.41
1:G:2670:GLU:OE1	1:G:2673:HIS:HB3	2.21	0.41
1:G:3775:ALA:O	1:G:3779:VAL:HG13	2.21	0.41
1:J:924:MET:HE1	3:K:106:PRO:CB	2.50	0.41
1:J:1440:PHE:CD2	1:J:1560:ASN:HB3	2.56	0.41
1:J:3850:GLN:HE21	1:J:3870:ASN:H	1.68	0.41
1:J:3878:ASP:O	1:J:3882:GLN:HG3	2.20	0.41
1:B:76:ARG:HH21	1:G:3844:LEU:HD11	1.86	0.40
1:B:1032:LYS:HB3	1:B:1036:ARG:HH22	1.86	0.40
1:B:1945:TYR:O	1:B:1949:GLN:HG2	2.21	0.40
1:B:2759:ALA:HB1	1:B:2806:ARG:HB2	2.03	0.40
1:B:3003:LEU:O	1:B:3007:ASN:ND2	2.55	0.40
1:B:3277:LEU:HG	1:B:3341:PHE:HZ	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3420:ARG:NH1	1:B:3516:LYS:O	2.51	0.40
1:B:4541:TRP:O	1:B:4544:LEU:HG	2.21	0.40
1:B:4553:ASN:O	1:B:4557:ARG:HG3	2.21	0.40
1:E:684:VAL:HG22	1:E:781:VAL:HG12	2.02	0.40
1:E:2536:LEU:HA	1:E:2541:PHE:HB3	2.03	0.40
1:E:2759:ALA:HB1	1:E:2806:ARG:HB2	2.03	0.40
1:E:2787:THR:OG1	1:E:2788:HIS:N	2.54	0.40
1:E:3277:LEU:HG	1:E:3341:PHE:HZ	1.86	0.40
1:E:3850:GLN:NE2	1:E:3870:ASN:H	2.19	0.40
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.20	0.40
1:G:355:LEU:HD22	1:G:379:HIS:HA	2.03	0.40
1:G:732:SER:O	1:G:735:GLN:HG2	2.20	0.40
1:G:3075:LEU:H	1:G:3146:HIS:CE1	2.38	0.40
1:G:3327:LEU:HD13	1:G:3368:ARG:NH1	2.36	0.40
1:G:4838:VAL:O	1:G:4841:VAL:HG12	2.20	0.40
1:J:2645:THR:HG23	1:J:2702:CYS:HA	2.03	0.40
1:J:2657:LEU:H	1:J:2711:PRO:HG3	1.85	0.40
1:J:3110:LEU:HD23	1:J:3183:VAL:HG12	2.02	0.40
1:J:3201:MET:HA	1:J:3201:MET:HE2	2.03	0.40
1:J:3206:LEU:O	1:J:3208:PRO:HD3	2.20	0.40
1:J:3775:ALA:O	1:J:3779:VAL:HG13	2.21	0.40
1:J:3949:ARG:O	1:J:3953:LYS:HG3	2.21	0.40
1:J:4838:VAL:O	1:J:4841:VAL:HG12	2.21	0.40
1:B:78:LEU:HD12	1:B:81:MET:SD	2.61	0.40
1:B:568:LEU:HD12	1:B:602:VAL:HG13	2.03	0.40
1:B:663:TYR:CE1	1:B:745:SER:HB3	2.55	0.40
1:B:3110:LEU:HD23	1:B:3183:VAL:HG12	2.02	0.40
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	2.01	0.40
1:E:110:ARG:HD3	1:E:115:ARG:HE	1.86	0.40
1:E:2325:PRO:HA	1:E:2425:PHE:CD2	2.56	0.40
1:E:2458:ARG:HG3	1:E:2510:TYR:CE1	2.57	0.40
1:E:2645:THR:HG23	1:E:2702:CYS:HA	2.03	0.40
1:E:2747:ILE:HG21	1:E:2814:LYS:HE3	2.03	0.40
1:E:3046:LEU:HA	1:E:3049:LEU:HG	2.03	0.40
1:E:3292:PRO:HA	1:E:3293:PRO:HD3	1.91	0.40
1:E:4998:LYS:HE3	1:E:4998:LYS:HB2	1.72	0.40
1:G:3264:THR:O	1:G:3267:PRO:HD3	2.21	0.40
1:G:4553:ASN:O	1:G:4557:ARG:HG3	2.21	0.40
1:G:4574:ASN:ND2	1:G:4810:ALA:HA	2.29	0.40
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.36	0.40
1:J:110:ARG:HD3	1:J:115:ARG:HE	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:664:PHE:CE1	1:J:746:CYS:HB2	2.57	0.40
1:J:2598:ALA:O	1:J:2602:VAL:HG23	2.21	0.40
1:J:3046:LEU:HA	1:J:3049:LEU:HG	2.03	0.40
1:J:3264:THR:O	1:J:3267:PRO:HD3	2.21	0.40
1:J:4574:ASN:ND2	1:J:4810:ALA:HA	2.29	0.40
1:B:138:GLN:NE2	1:B:140:ASP:O	2.54	0.40
1:B:316:PHE:HD2	1:B:339:ILE:HG21	1.87	0.40
1:B:882:TRP:CD1	1:B:886:ARG:CZ	3.03	0.40
1:B:1699:GLU:HG3	1:B:1810:LYS:HE3	2.02	0.40
1:B:4652:LEU:O	1:B:4656:LEU:HG	2.21	0.40
1:B:4679:ARG:HH21	1:B:5017:ARG:NH1	2.18	0.40
1:E:138:GLN:NE2	1:E:140:ASP:O	2.54	0.40
1:E:1115:LEU:HD23	1:E:1123:VAL:HG21	2.03	0.40
1:E:2911:LEU:HD13	1:E:2915:GLU:HG3	2.04	0.40
1:E:4046:ASP:HA	1:E:4049:VAL:HG22	2.04	0.40
1:G:192:ASP:N	1:G:192:ASP:OD1	2.55	0.40
1:G:1053:ILE:H	1:G:1053:ILE:HG12	1.66	0.40
1:G:1945:TYR:O	1:G:1949:GLN:HG2	2.22	0.40
1:G:3016:TYR:CE2	1:G:3030:HIS:HB3	2.56	0.40
1:G:3398:PHE:HD1	1:G:3451:PHE:CD2	2.40	0.40
1:G:4652:LEU:O	1:G:4656:LEU:HG	2.21	0.40
1:J:73:LEU:O	1:J:106:ALA:N	2.46	0.40
1:J:138:GLN:NE2	1:J:140:ASP:O	2.54	0.40
1:J:553:ARG:NH1	1:J:555:GLU:OE2	2.48	0.40
1:J:1870:VAL:HG11	1:J:2097:LEU:HD22	2.02	0.40
1:J:2012:PHE:CZ	1:J:2031:LEU:HD23	2.57	0.40
1:J:2867:LEU:HD12	1:J:2867:LEU:HA	1.82	0.40
1:J:2911:LEU:HD13	1:J:2915:GLU:HG3	2.04	0.40
1:J:3016:TYR:CE2	1:J:3030:HIS:HB3	2.56	0.40
1:J:4046:ASP:HA	1:J:4049:VAL:HG22	2.04	0.40
2:H:26:TYR:HA	2:H:100:ASP:O	2.20	0.40
2:I:39:SER:OG	2:I:44:LYS:O	2.40	0.40
3:C:30:SER:HB3	3:C:99:ARG:CB	2.49	0.40
3:M:105:ASN:ND2	3:M:107:TRP:H	2.20	0.40
1:B:246:TYR:CD1	1:B:373:LYS:HB2	2.57	0.40
1:B:2633:LEU:HB3	1:B:2689:LYS:HZ1	1.86	0.40
1:B:2965:ARG:HE	1:B:2965:ARG:HB3	1.57	0.40
1:B:3016:TYR:CE2	1:B:3030:HIS:HB3	2.56	0.40
1:B:3568:SER:HA	1:B:3571:TRP:CD1	2.56	0.40
1:B:3639:THR:N	1:B:3640:PRO:HD2	2.35	0.40
1:B:3970:GLN:NE2	1:B:5004:THR:HA	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:192:ASP:OD1	1:E:192:ASP:N	2.55	0.40
1:E:418:LEU:HD13	1:E:493:ARG:HB3	2.04	0.40
1:E:1738:LEU:HD12	1:E:1738:LEU:HA	1.80	0.40
1:E:2951:ILE:HG13	1:E:2957:PHE:HB3	2.04	0.40
1:E:3154:ASP:N	1:E:3154:ASP:OD1	2.55	0.40
1:E:3264:THR:O	1:E:3267:PRO:HD3	2.21	0.40
1:E:3327:LEU:HD22	1:E:3368:ARG:NH1	2.36	0.40
1:E:3558:HIS:CD2	1:E:3559:LEU:HG	2.57	0.40
1:E:3943:ILE:HD11	1:E:4002:LYS:HE2	2.03	0.40
1:E:4966:ASP:N	1:E:4966:ASP:OD1	2.53	0.40
1:G:2485:LEU:HD23	1:G:2485:LEU:HA	1.95	0.40
1:G:2536:LEU:HA	1:G:2541:PHE:HB3	2.03	0.40
1:G:2598:ALA:O	1:G:2602:VAL:HG23	2.21	0.40
1:G:2973:PHE:CD1	1:G:2995:ILE:HG12	2.57	0.40
1:G:3010:PHE:O	1:G:3014:CYS:HB2	2.21	0.40
1:G:3327:LEU:HD22	1:G:3368:ARG:NH1	2.36	0.40
1:G:3965:LEU:HA	1:G:3968:TYR:CD2	2.57	0.40
1:G:4725:LEU:HA	1:G:4737:ILE:HG21	2.02	0.40
1:J:144:GLU:HB2	1:J:174:VAL:HG23	2.04	0.40
1:J:2661:TRP:CZ3	1:J:2664:PHE:HD2	2.38	0.40
1:J:3558:HIS:CD2	1:J:3559:LEU:HG	2.57	0.40
1:J:4114:CYS:O	1:J:4131:ARG:NH2	2.55	0.40
2:H:5:GLU:HA	2:H:5:GLU:OE1	2.22	0.40
2:H:39:SER:OG	2:H:44:LYS:O	2.40	0.40
2:I:5:GLU:OE1	2:I:5:GLU:HA	2.22	0.40
1:B:172:VAL:HA	1:B:178:ARG:O	2.21	0.40
1:B:664:PHE:CE1	1:B:746:CYS:HB2	2.57	0.40
1:B:906:CYS:O	1:B:908:VAL:HG23	2.21	0.40
1:B:2247:GLN:HG3	1:B:2279:SER:HA	2.04	0.40
1:B:3453:ARG:NH1	1:B:3453:ARG:HA	2.37	0.40
1:B:3965:LEU:HA	1:B:3968:TYR:CD2	2.57	0.40
1:B:4077:PHE:O	1:B:4081:VAL:HG23	2.22	0.40
1:B:4966:ASP:OD1	1:B:4966:ASP:N	2.53	0.40
1:E:1733:GLU:O	1:E:1772:ARG:NH1	2.52	0.40
1:E:2247:GLN:HG3	1:E:2279:SER:HA	2.04	0.40
1:E:2598:ALA:O	1:E:2602:VAL:HG23	2.21	0.40
1:E:2968:ASP:OD1	1:E:2968:ASP:N	2.54	0.40
1:E:3062:PRO:HA	1:E:3065:VAL:HG22	2.02	0.40
1:G:2254:LEU:O	1:G:2258:LEU:HG	2.22	0.40
1:G:2286:LEU:HD23	1:G:2286:LEU:HA	1.93	0.40
1:G:2968:ASP:N	1:G:2968:ASP:OD1	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3046:LEU:HA	1:G:3049:LEU:HG	2.03	0.40
1:G:3530:GLN:OE1	1:G:3530:GLN:N	2.52	0.40
1:G:3639:THR:N	1:G:3640:PRO:HD2	2.35	0.40
1:G:4209:GLN:H	1:G:4209:GLN:HG3	1.65	0.40
1:J:192:ASP:N	1:J:192:ASP:OD1	2.55	0.40
1:J:581:ASN:OD1	1:J:581:ASN:N	2.53	0.40
1:J:623:GLU:HG2	2:I:88:PRO:HB3	2.02	0.40
1:J:987:ARG:HG3	1:J:987:ARG:H	1.75	0.40
1:J:2247:GLN:HG3	1:J:2279:SER:HA	2.04	0.40
1:J:2263:ILE:O	1:J:2330:ARG:NH1	2.51	0.40
1:J:3398:PHE:HD1	1:J:3451:PHE:CD2	2.40	0.40
1:J:4998:LYS:HB2	1:J:4998:LYS:HE3	1.72	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	B	4247/5037 (84%)	4148 (98%)	96 (2%)	3 (0%)	48	80
1	E	4247/5037 (84%)	4149 (98%)	96 (2%)	2 (0%)	100	100
1	G	4247/5037 (84%)	4148 (98%)	97 (2%)	2 (0%)	100	100
1	J	4247/5037 (84%)	4148 (98%)	97 (2%)	2 (0%)	100	100
2	A	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	D	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	H	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
2	I	105/107 (98%)	102 (97%)	3 (3%)	0	100	100
3	C	124/137 (90%)	118 (95%)	6 (5%)	0	100	100
3	F	124/137 (90%)	118 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	K	124/137 (90%)	118 (95%)	6 (5%)	0	100	100
3	M	124/137 (90%)	117 (94%)	7 (6%)	0	100	100
All	All	17904/21124 (85%)	17472 (98%)	423 (2%)	9 (0%)	50	80

All (9) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	4117	ALA
1	E	4117	ALA
1	G	4117	ALA
1	J	4117	ALA
1	B	375	LYS
1	B	3972	PRO
1	E	3972	PRO
1	G	3972	PRO
1	J	3972	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	B	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	E	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	G	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
1	J	3658/4276 (86%)	3584 (98%)	74 (2%)	50	75
2	A	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	D	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	H	88/88 (100%)	87 (99%)	1 (1%)	70	86
2	I	88/88 (100%)	87 (99%)	1 (1%)	70	86
3	C	104/114 (91%)	99 (95%)	5 (5%)	21	55
3	F	104/114 (91%)	99 (95%)	5 (5%)	21	55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	K	104/114 (91%)	99 (95%)	5 (5%)	21 55
3	M	104/114 (91%)	99 (95%)	5 (5%)	21 55
All	All	15400/17912 (86%)	15080 (98%)	320 (2%)	49 74

All (320) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	150	MET
1	B	196	MET
1	B	223	PHE
1	B	230	CYS
1	B	308	HIS
1	B	310	LYS
1	B	341	TYR
1	B	379	HIS
1	B	389	PHE
1	B	436	LEU
1	B	725	HIS
1	B	871	ARG
1	B	914	PRO
1	B	918	ARG
1	B	960	MET
1	B	961	MET
1	B	1025	ARG
1	B	1065	ASN
1	B	1112	ASP
1	B	1132	TRP
1	B	1143	TRP
1	B	1157	GLU
1	B	1170	MET
1	B	1421	ARG
1	B	1435	TYR
1	B	2203	MET
1	B	2256	TYR
1	B	2330	ARG
1	B	2423	MET
1	B	2489	LYS
1	B	2516	ASP
1	B	2569	PHE
1	B	2578	MET
1	B	2612	ARG

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Mol	Chain	Res	Type
1	B	2618	MET
1	B	2647	HIS
1	B	2670	GLU
1	B	2700	MET
1	B	2738	ARG
1	B	2751	LEU
1	B	2806	ARG
1	B	2827	ARG
1	B	2914	LYS
1	B	2955	PHE
1	B	2965	ARG
1	B	2973	PHE
1	B	3033	ASN
1	B	3038	MET
1	B	3069	HIS
1	B	3078	ARG
1	B	3167	ARG
1	B	3185	LYS
1	B	3248	ARG
1	B	3280	TYR
1	B	3343	GLN
1	B	3406	TYR
1	B	3422	HIS
1	B	3462	ASN
1	B	3516	LYS
1	B	3604	TYR
1	B	3642	TYR
1	B	3758	MET
1	B	3787	LYS
1	B	3899	PHE
1	B	3933	PHE
1	B	3937	TYR
1	B	3940	LYS
1	B	4001	MET
1	B	4042	ARG
1	B	4103	PHE
1	B	4159	ARG
1	B	4553	ASN
1	B	4580	TYR
1	B	4858	PHE
1	E	150	MET
1	E	196	MET

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Mol	Chain	Res	Type
1	E	223	PHE
1	E	230	CYS
1	E	308	HIS
1	E	310	LYS
1	E	341	TYR
1	E	379	HIS
1	E	389	PHE
1	E	436	LEU
1	E	725	HIS
1	E	871	ARG
1	E	914	PRO
1	E	918	ARG
1	E	960	MET
1	E	961	MET
1	E	1025	ARG
1	E	1065	ASN
1	E	1112	ASP
1	E	1132	TRP
1	E	1143	TRP
1	E	1157	GLU
1	E	1170	MET
1	E	1421	ARG
1	E	1435	TYR
1	E	2203	MET
1	E	2256	TYR
1	E	2330	ARG
1	E	2423	MET
1	E	2489	LYS
1	E	2516	ASP
1	E	2569	PHE
1	E	2578	MET
1	E	2612	ARG
1	E	2618	MET
1	E	2647	HIS
1	E	2670	GLU
1	E	2700	MET
1	E	2738	ARG
1	E	2751	LEU
1	E	2806	ARG
1	E	2827	ARG
1	E	2914	LYS
1	E	2955	PHE

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Mol	Chain	Res	Type
1	E	2965	ARG
1	E	2973	PHE
1	E	3033	ASN
1	E	3038	MET
1	E	3069	HIS
1	E	3078	ARG
1	E	3167	ARG
1	E	3185	LYS
1	E	3248	ARG
1	E	3280	TYR
1	E	3343	GLN
1	E	3406	TYR
1	E	3422	HIS
1	E	3462	ASN
1	E	3516	LYS
1	E	3604	TYR
1	E	3642	TYR
1	E	3758	MET
1	E	3787	LYS
1	E	3899	PHE
1	E	3933	PHE
1	E	3937	TYR
1	E	3940	LYS
1	E	4001	MET
1	E	4042	ARG
1	E	4103	PHE
1	E	4159	ARG
1	E	4553	ASN
1	E	4580	TYR
1	E	4858	PHE
1	G	150	MET
1	G	196	MET
1	G	223	PHE
1	G	230	CYS
1	G	308	HIS
1	G	310	LYS
1	G	341	TYR
1	G	379	HIS
1	G	389	PHE
1	G	436	LEU
1	G	725	HIS
1	G	871	ARG

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Mol	Chain	Res	Type
1	G	914	PRO
1	G	918	ARG
1	G	960	MET
1	G	961	MET
1	G	1025	ARG
1	G	1065	ASN
1	G	1112	ASP
1	G	1132	TRP
1	G	1143	TRP
1	G	1157	GLU
1	G	1170	MET
1	G	1421	ARG
1	G	1435	TYR
1	G	2203	MET
1	G	2256	TYR
1	G	2330	ARG
1	G	2423	MET
1	G	2489	LYS
1	G	2516	ASP
1	G	2569	PHE
1	G	2578	MET
1	G	2612	ARG
1	G	2618	MET
1	G	2647	HIS
1	G	2670	GLU
1	G	2700	MET
1	G	2738	ARG
1	G	2751	LEU
1	G	2806	ARG
1	G	2827	ARG
1	G	2914	LYS
1	G	2955	PHE
1	G	2965	ARG
1	G	2973	PHE
1	G	3033	ASN
1	G	3038	MET
1	G	3069	HIS
1	G	3078	ARG
1	G	3167	ARG
1	G	3185	LYS
1	G	3248	ARG
1	G	3280	TYR

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Mol	Chain	Res	Type
1	G	3343	GLN
1	G	3406	TYR
1	G	3422	HIS
1	G	3462	ASN
1	G	3516	LYS
1	G	3604	TYR
1	G	3642	TYR
1	G	3758	MET
1	G	3787	LYS
1	G	3899	PHE
1	G	3933	PHE
1	G	3937	TYR
1	G	3940	LYS
1	G	4001	MET
1	G	4042	ARG
1	G	4103	PHE
1	G	4159	ARG
1	G	4553	ASN
1	G	4580	TYR
1	G	4858	PHE
1	J	150	MET
1	J	196	MET
1	J	223	PHE
1	J	230	CYS
1	J	308	HIS
1	J	310	LYS
1	J	341	TYR
1	J	379	HIS
1	J	389	PHE
1	J	436	LEU
1	J	725	HIS
1	J	871	ARG
1	J	914	PRO
1	J	918	ARG
1	J	960	MET
1	J	961	MET
1	J	1025	ARG
1	J	1065	ASN
1	J	1112	ASP
1	J	1132	TRP
1	J	1143	TRP
1	J	1157	GLU

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Mol	Chain	Res	Type
1	J	1170	MET
1	J	1421	ARG
1	J	1435	TYR
1	J	2203	MET
1	J	2256	TYR
1	J	2330	ARG
1	J	2423	MET
1	J	2489	LYS
1	J	2516	ASP
1	J	2569	PHE
1	J	2578	MET
1	J	2612	ARG
1	J	2618	MET
1	J	2647	HIS
1	J	2670	GLU
1	J	2700	MET
1	J	2738	ARG
1	J	2751	LEU
1	J	2806	ARG
1	J	2827	ARG
1	J	2914	LYS
1	J	2955	PHE
1	J	2965	ARG
1	J	2973	PHE
1	J	3033	ASN
1	J	3038	MET
1	J	3069	HIS
1	J	3078	ARG
1	J	3167	ARG
1	J	3185	LYS
1	J	3248	ARG
1	J	3280	TYR
1	J	3343	GLN
1	J	3406	TYR
1	J	3422	HIS
1	J	3462	ASN
1	J	3516	LYS
1	J	3604	TYR
1	J	3642	TYR
1	J	3758	MET
1	J	3787	LYS
1	J	3899	PHE

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Mol	Chain	Res	Type
1	J	3933	PHE
1	J	3937	TYR
1	J	3940	LYS
1	J	4001	MET
1	J	4042	ARG
1	J	4103	PHE
1	J	4159	ARG
1	J	4553	ASN
1	J	4580	TYR
1	J	4858	PHE
2	A	66	MET
2	D	66	MET
2	H	66	MET
2	I	66	MET
3	C	3	GLN
3	C	83	ASN
3	C	89	ASP
3	C	111	ASN
3	C	114	TYR
3	F	3	GLN
3	F	83	ASN
3	F	89	ASP
3	F	111	ASN
3	F	114	TYR
3	K	3	GLN
3	K	83	ASN
3	K	89	ASP
3	K	111	ASN
3	K	114	TYR
3	M	3	GLN
3	M	83	ASN
3	M	89	ASP
3	M	111	ASN
3	M	114	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (57) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	877	ASN
1	B	1973	GLN
1	B	2005	GLN
1	B	2420	HIS

Continued on next page...

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Mol	Chain	Res	Type
1	B	3069	HIS
1	B	3146	HIS
1	B	3150	HIS
1	B	3450	ASN
1	B	3462	ASN
1	B	3771	HIS
1	B	3850	GLN
1	B	3895	HIS
1	B	3970	GLN
1	B	4574	ASN
1	E	877	ASN
1	E	1299	GLN
1	E	1973	GLN
1	E	2005	GLN
1	E	3069	HIS
1	E	3146	HIS
1	E	3150	HIS
1	E	3450	ASN
1	E	3462	ASN
1	E	3771	HIS
1	E	3850	GLN
1	E	3895	HIS
1	E	3970	GLN
1	E	4574	ASN
1	G	877	ASN
1	G	1299	GLN
1	G	1973	GLN
1	G	2005	GLN
1	G	2420	HIS
1	G	3069	HIS
1	G	3146	HIS
1	G	3150	HIS
1	G	3450	ASN
1	G	3462	ASN
1	G	3771	HIS
1	G	3850	GLN
1	G	3895	HIS
1	G	3970	GLN
1	G	4574	ASN
1	J	877	ASN
1	J	1299	GLN
1	J	1973	GLN

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Mol	Chain	Res	Type
1	J	2005	GLN
1	J	3069	HIS
1	J	3146	HIS
1	J	3150	HIS
1	J	3450	ASN
1	J	3771	HIS
1	J	3850	GLN
1	J	3895	HIS
1	J	3970	GLN
1	J	4574	ASN
2	D	31	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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

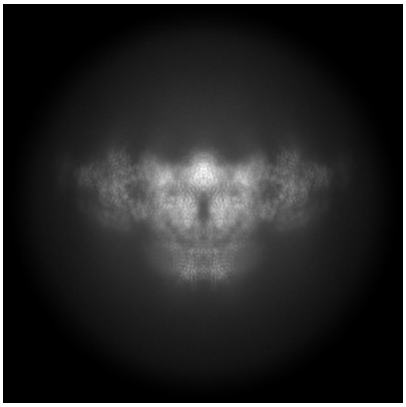
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-19466. These allow visual inspection of the internal detail of the map and identification of artifacts.

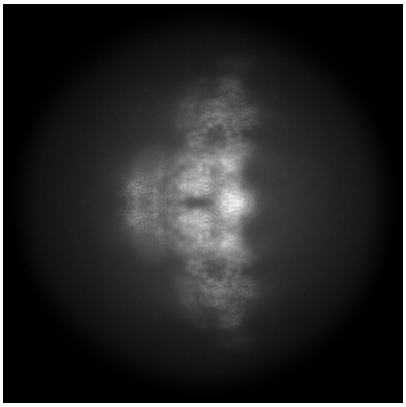
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

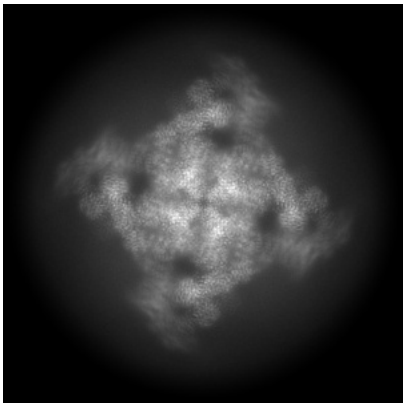
6.1.1 Primary map



X



Y

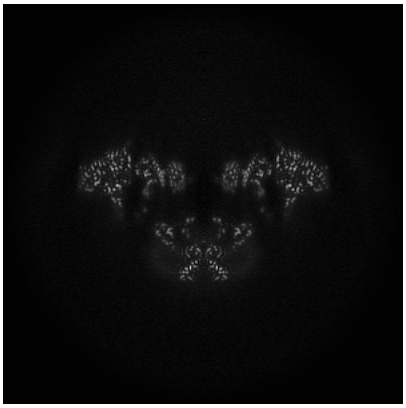


Z

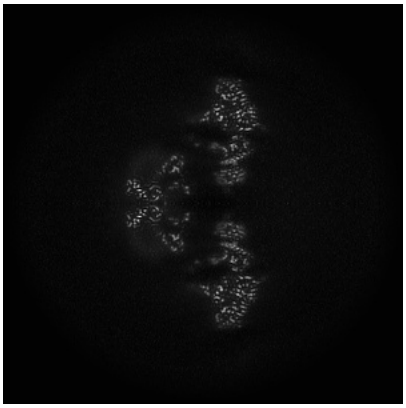
The images above show the map projected in three orthogonal directions.

6.2 Central slices

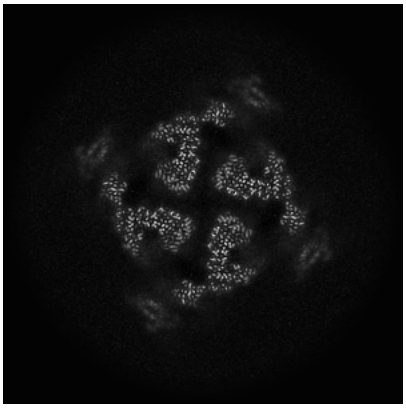
6.2.1 Primary map



X Index: 168



Y Index: 168



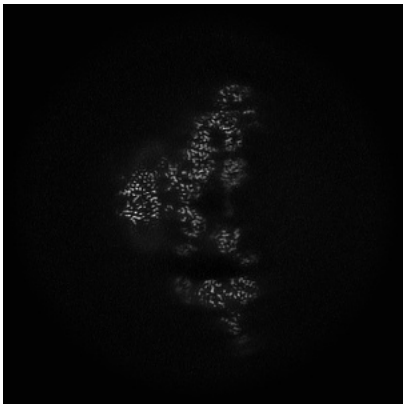
Z Index: 168

The images above show central slices of the map in three orthogonal directions.

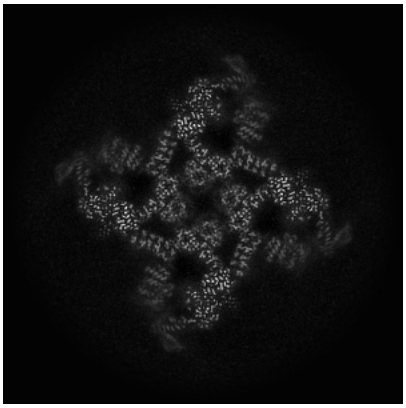
6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 178



Y Index: 178

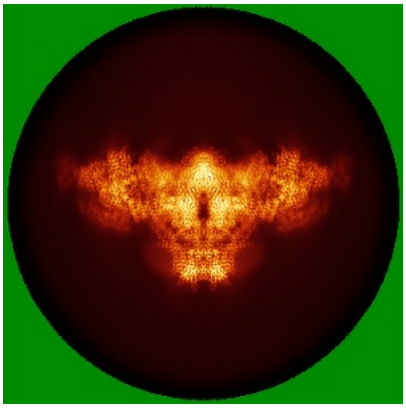


Z Index: 187

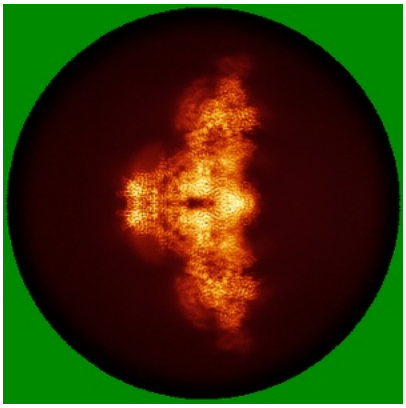
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

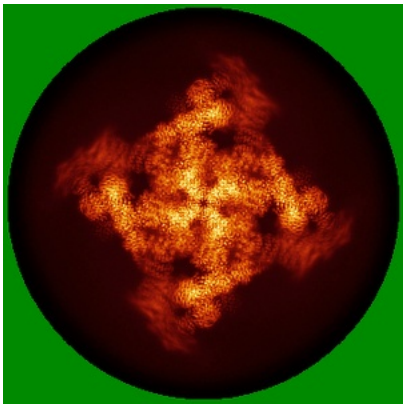
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.35. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

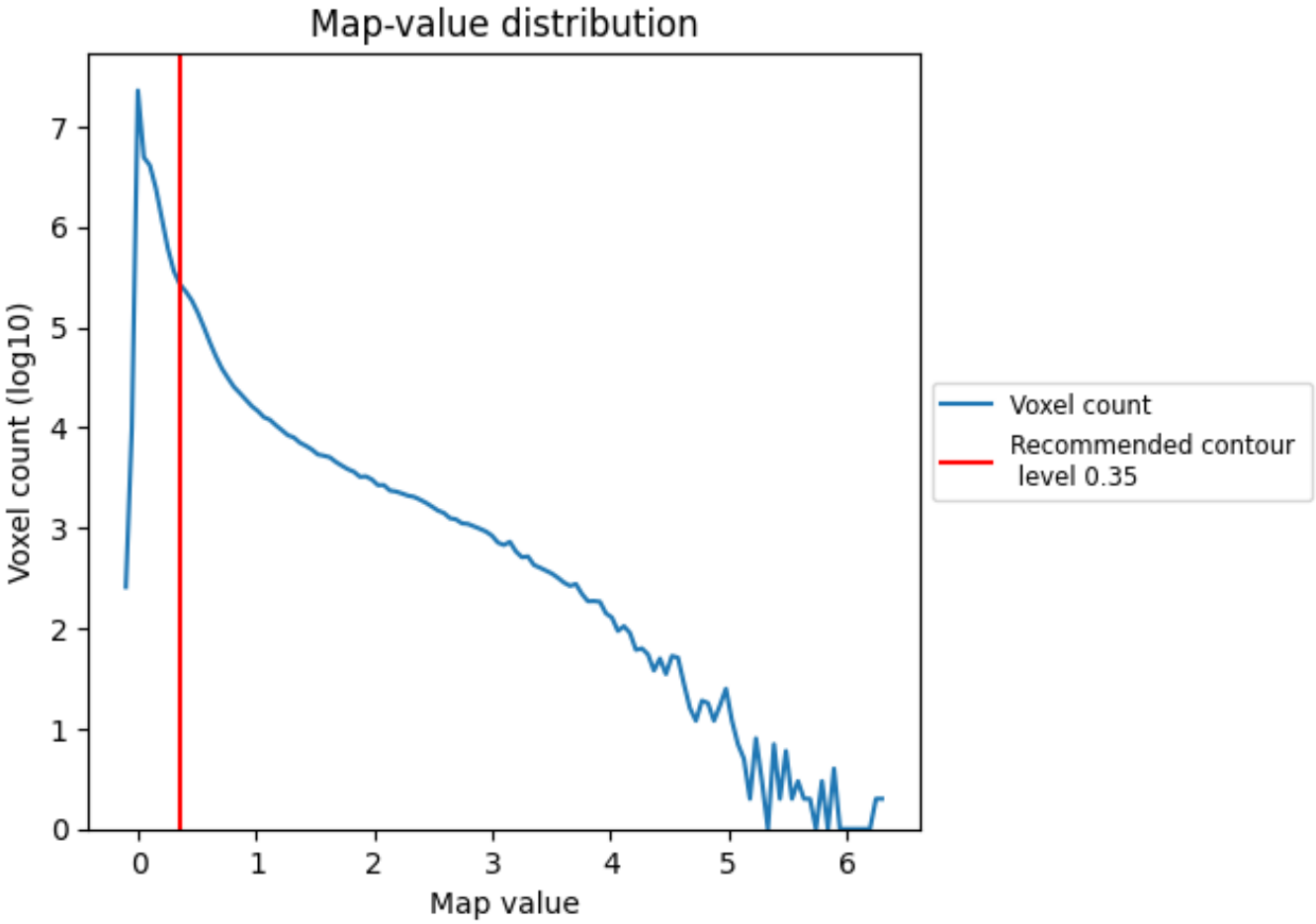
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

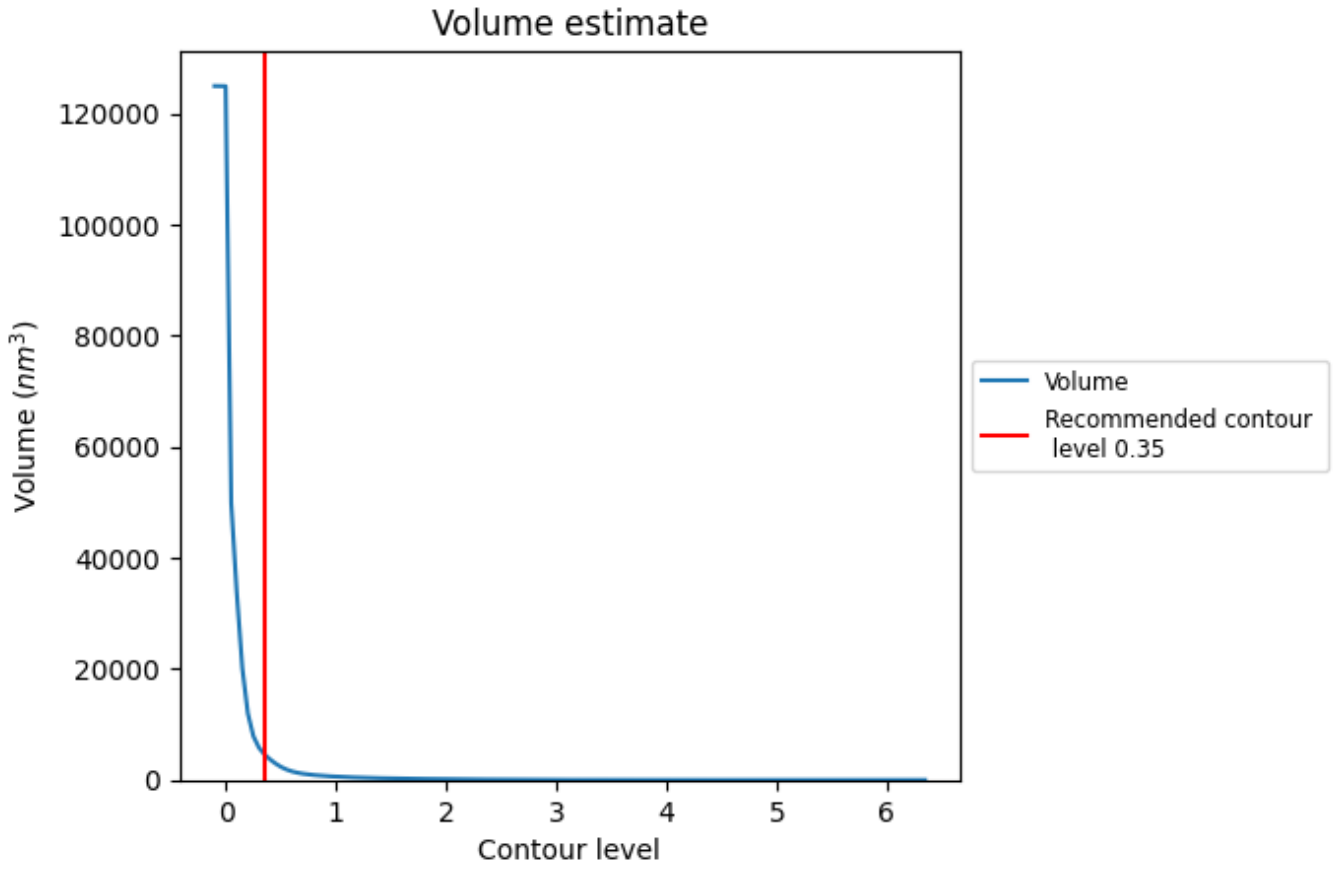
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

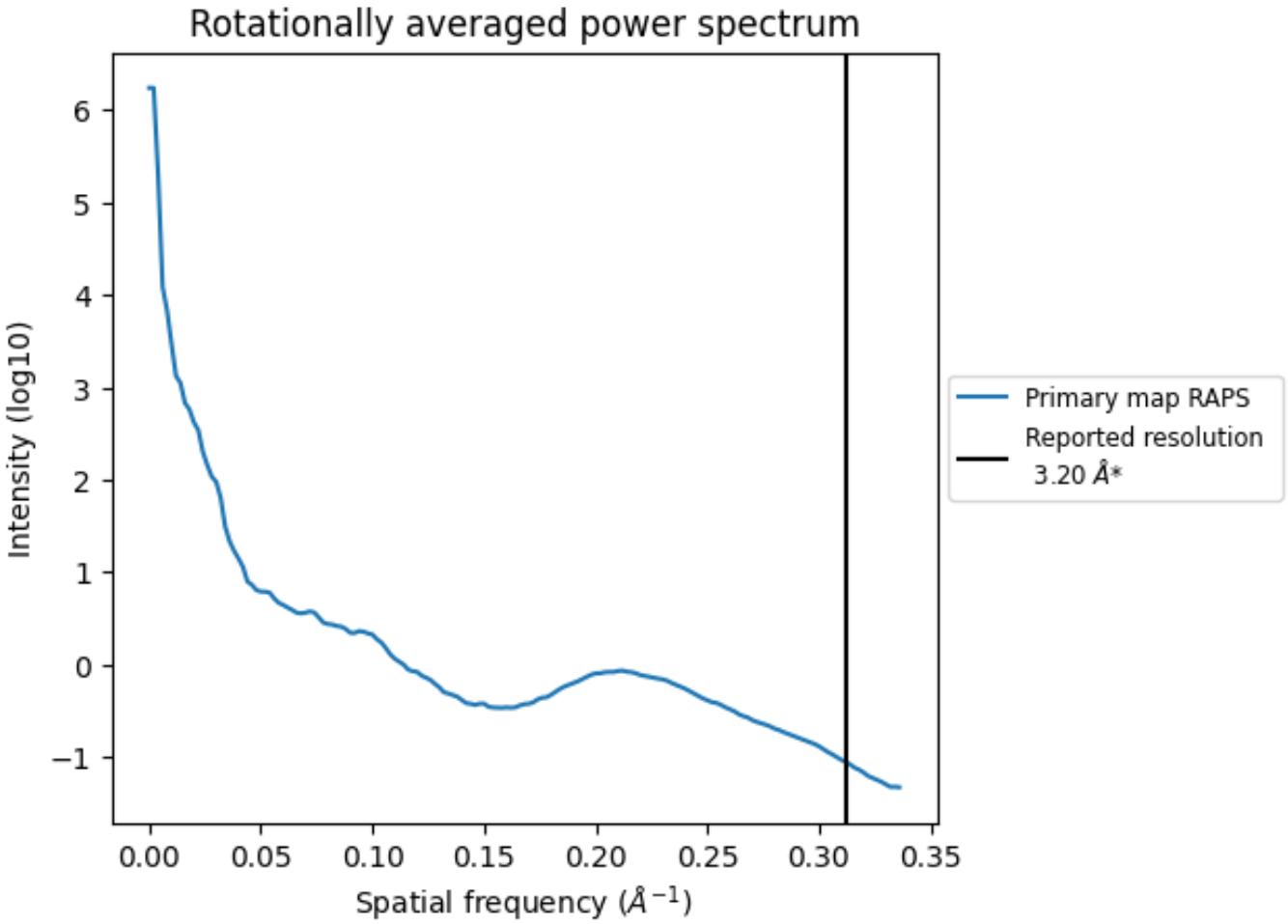
7.2 Volume estimate



The volume at the recommended contour level is 4570 nm^3; this corresponds to an approximate mass of 4129 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)

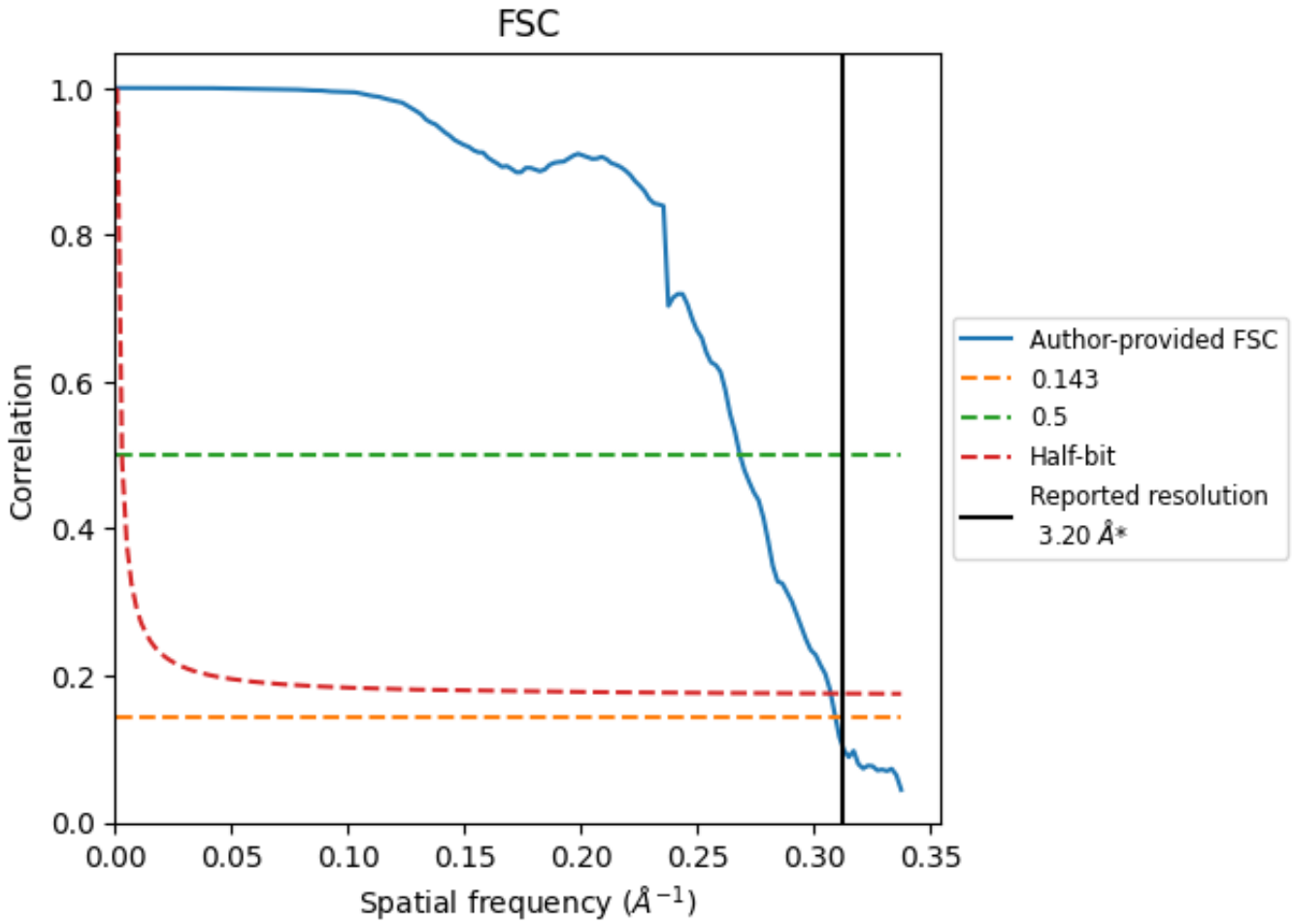


*Reported resolution corresponds to spatial frequency of 0.312 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.312 Å^{-1}

8.2 Resolution estimates (i)

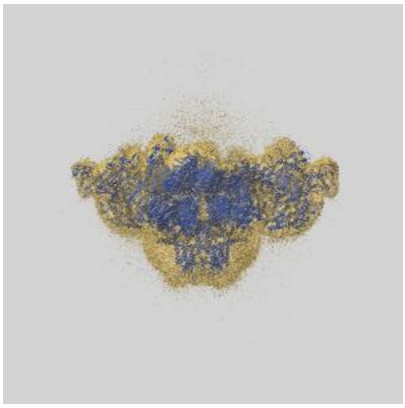
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.20	-	-
Author-provided FSC curve	3.23	3.73	3.26
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

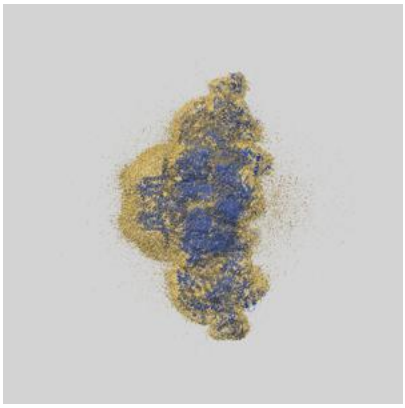
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-19466 and PDB model 8RRV. Per-residue inclusion information can be found in section 3 on page 6.

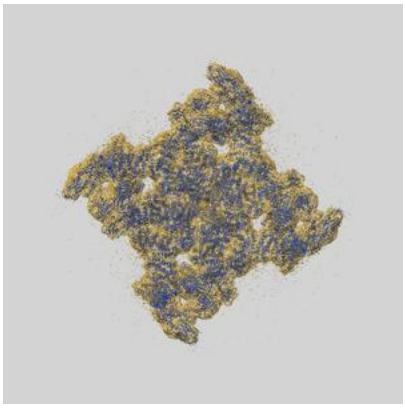
9.1 Map-model overlay



X



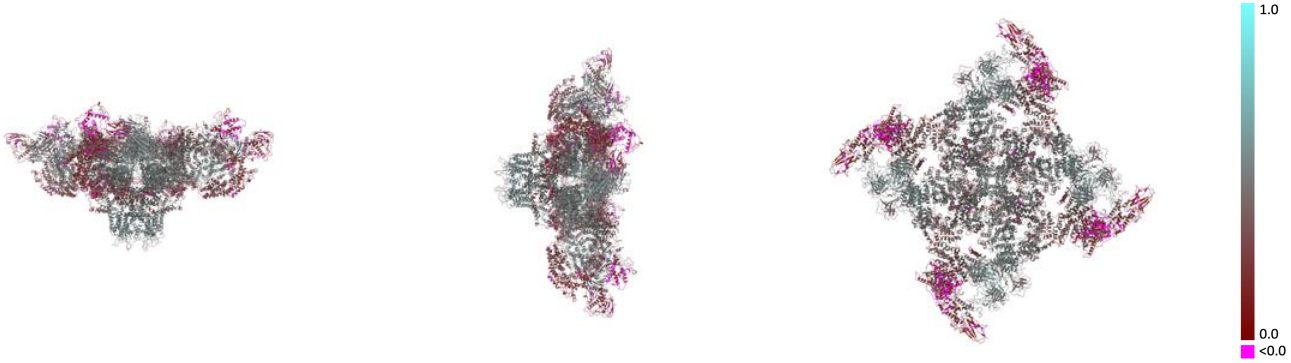
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.35 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

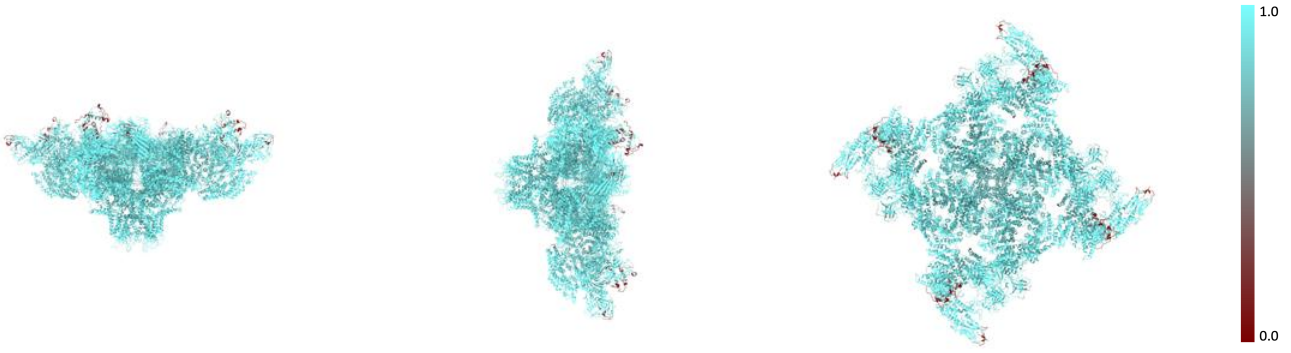
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

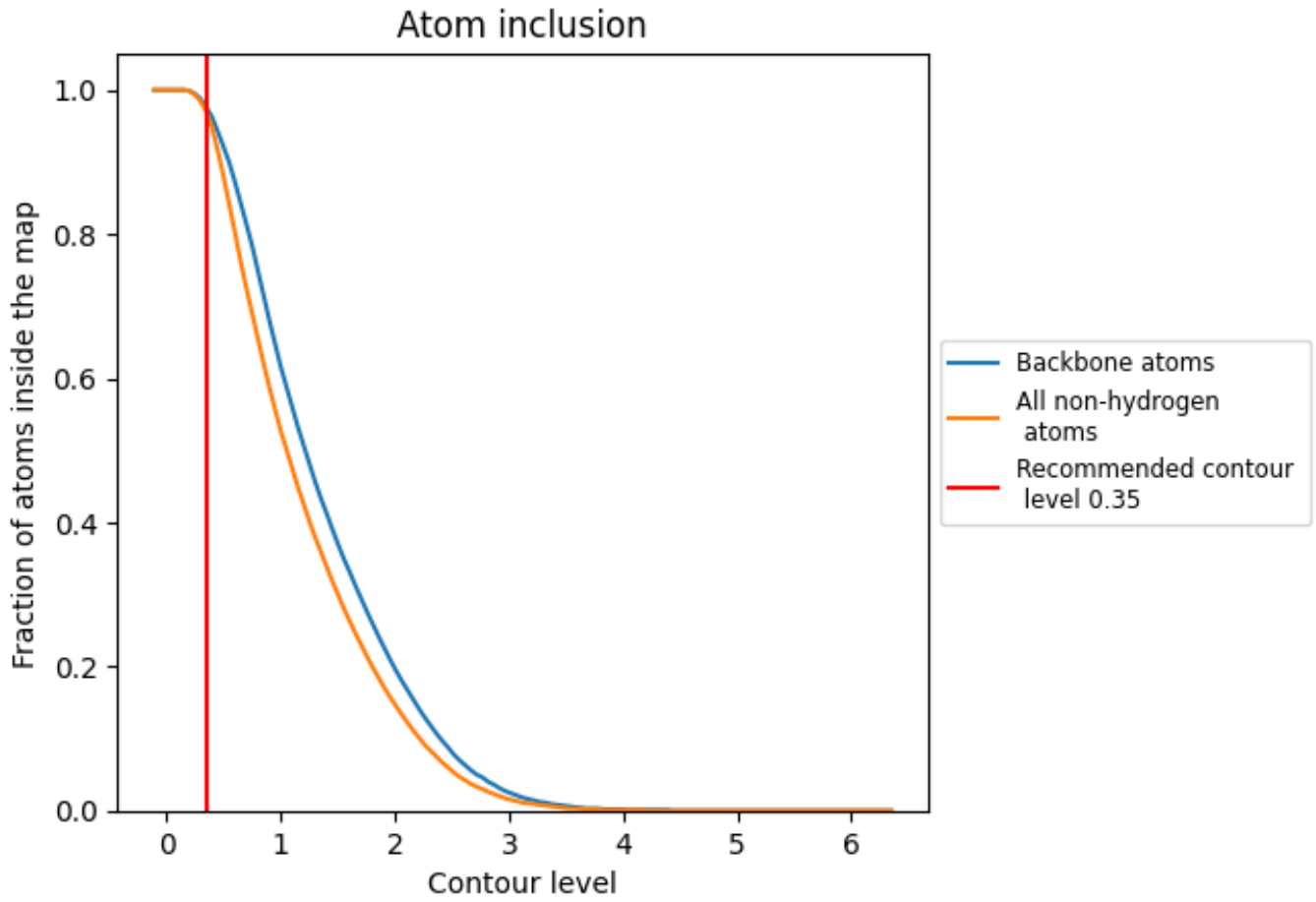
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.35).

9.4 Atom inclusion (i)



At the recommended contour level, 98% of all backbone atoms, 97% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.35) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9700	0.3800
A	0.8810	0.4120
B	0.9770	0.3850
C	0.7720	0.1480
D	0.8780	0.4170
E	0.9780	0.3850
F	0.7760	0.1480
G	0.9770	0.3850
H	0.8860	0.4150
I	0.8810	0.4170
J	0.9770	0.3860
K	0.7770	0.1480
M	0.7720	0.1500