

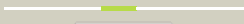
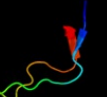
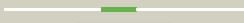
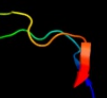





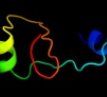










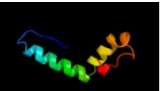
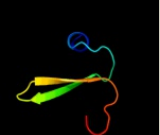



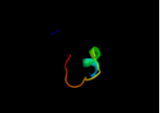





Phyre2


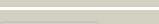
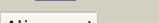

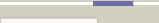









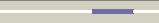

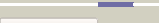



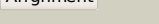
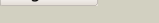
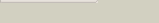
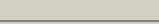

Email	l.a.kelley@imperial.ac.uk
Description	P18472
Date	Thu Jan 5 11:37:00 GMT 2012
Unique Job ID	5279f5cb5050d57d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2fu3A_	 Alignment		72.2	20	PDB header: biosynthetic protein/structural protein Chain: A; PDB Molecule: gephyrin; PDBTitle: crystal structure of gephyrin e-domain
2	c2bhvC_	 Alignment		60.3	21	PDB header: bacterial protein Chain: C; PDB Molecule: comb10; PDBTitle: structure of comb10 of the com type iv secretion system of <i>Helicobacter pylori</i>
3	c3jqoV_	 Alignment		57.7	22	PDB header: transport protein Chain: V; PDB Molecule: traf protein; PDBTitle: crystal structure of the outer membrane complex of a type iv2 secretion system
4	d2gtta1	 Alignment		57.5	29	Fold: Rhabdovirus nucleoprotein-like Superfamily: Rhabdovirus nucleoprotein-like Family: Rhabdovirus nucleocapsid protein
5	d2gica1	 Alignment		55.1	16	Fold: Rhabdovirus nucleoprotein-like Superfamily: Rhabdovirus nucleoprotein-like Family: Rhabdovirus nucleocapsid protein
6	c3emxB_	 Alignment		52.0	17	PDB header: oxidoreductase Chain: B; PDB Molecule: thioredoxin; PDBTitle: crystal structure of thioredoxin from <i>Aeropyrum pernix</i>
7	c2nqqA_	 Alignment		51.9	19	PDB header: biosynthetic protein Chain: A; PDB Molecule: molybdopterin biosynthesis protein moea; PDBTitle: moea r137q
8	c2qsiB_	 Alignment		50.2	20	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: putative hydrogenase expression/formation protein hupg; PDBTitle: crystal structure of putative hydrogenase expression/formation protein2 hupg from <i>Rhodospirillum rubrum</i>
9	c3e7hA_	 Alignment		47.7	13	PDB header: transferase Chain: A; PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: the crystal structure of the beta subunit of the dna-2 directed rna polymerase from <i>Vibrio cholerae</i> O1 biovar3 eltor
10	d1j08a2	 Alignment		47.2	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
11	d2hfdA1	 Alignment		43.9	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: HyaE-like

12	c2yjpB	Alignment		41.7	14	PDB header: transport protein Chain: B: PDB Molecule: putative abc transporter, periplasmic binding protein, PDBTitle: crystal structure of the solute receptors for l-cysteine of2 neisseria gonorrhoeae
13	dlv58a1	Alignment		40.8	18	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbC/DsbG C-terminal domain-like
14	dlwoua	Alignment		36.7	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Txnl5-like
15	dlv9wa	Alignment		36.3	27	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Txnl5-like
16	dlhyua4	Alignment		36.0	16	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
17	dlnhoa	Alignment		35.6	21	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
18	dlsyra	Alignment		35.3	10	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
19	dlzmaa1	Alignment		34.1	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
20	c2fgxA	Alignment		33.7	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative thioredoxin; PDBTitle: solution nmr structure of protein ne2328 from nitrosomonas2 europaea. northeast structural genomics consortium target3 net3.
21	c2vm2C	Alignment	not modelled	33.2	11	PDB header: oxidoreductase Chain: C: PDB Molecule: thioredoxin h isoform 1.; PDBTitle: crystal structure of barley thioredoxin h isoform 12 crystallized using peg as precipitant
22	dlj08a1	Alignment	not modelled	31.6	23	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
23	d2nqra2	Alignment	not modelled	31.4	18	Fold: MoeA N-terminal region -like Superfamily: MoeA N-terminal region -like Family: MoeA N-terminal region -like
24	c2l6dA	Alignment	not modelled	30.3	23	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: solution structure of desulfothioredoxin from desulfovibrio vulgaris2 hildenborough in its reduced form
25	c2dizA	Alignment	not modelled	29.8	11	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin domain-containing protein 5; PDBTitle: the solution structure of the third thioredoxin domain of2 human thioredoxin domain-containing protein 5
26	dla8la1	Alignment	not modelled	29.8	28	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
27	dlfo5a	Alignment	not modelled	29.8	32	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
28	dluz5a2	Alignment	not modelled	29.4	29	Fold: MoeA N-terminal region -like Superfamily: MoeA N-terminal region -like Family: MoeA N-terminal region -like
29	c3nvbA	Alignment	not modelled	29.0	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of n-terminal part of the protein bf1531

						from2 bacteroides fragilis containing phosphatase domain complexed with mg3 and tungstate
30	d1h6ua1	Alignment	not modelled	28.9	9	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Internalin Ig-like domain
31	c3dmlA_	Alignment	not modelled	28.4	16	PDB header: oxidoreductase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the periplasmic thioredoxin soxs from2 paracoccus pantotrophus (reduced form)
32	c2pptA_	Alignment	not modelled	28.1	12	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin-2; PDBTitle: crystal structure of thioredoxin-2
33	d1h6ta1	Alignment	not modelled	28.0	5	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Internalin Ig-like domain
34	c1v57A_	Alignment	not modelled	27.6	18	PDB header: isomerase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbg; PDBTitle: crystal structure of the disulfide bond isomerase dsbg
35	c3gnjD_	Alignment	not modelled	26.9	23	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: thioredoxin domain protein; PDBTitle: the crystal structure of a thioredoxin-related protein from2 desulfitobacterium hafniense dcb
36	c3cxgA_	Alignment	not modelled	26.6	20	PDB header: oxidoreductase Chain: A: PDB Molecule: putative thioredoxin; PDBTitle: crystal structure of plasmodium falciparum thioredoxin, pfi0790w
37	d1gh2a_	Alignment	not modelled	26.2	13	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
38	d1qgva_	Alignment	not modelled	25.7	0	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: spliceosomal protein U5-15Kd
39	d1spgb_	Alignment	not modelled	25.5	8	Fold: Globin-like Superfamily: Globin-like Family: Globins
40	c2y7iB_	Alignment	not modelled	25.3	19	PDB header: arginine-binding protein Chain: B: PDB Molecule: stm4351; PDBTitle: structural basis for high arginine specificity in salmonella2 typhimurium periplasmic binding protein stm4351.
41	d1wu2a2	Alignment	not modelled	25.2	33	Fold: MoeA N-terminal region -like Superfamily: MoeA N-terminal region -like Family: MoeA N-terminal region -like
42	c2i5iA_	Alignment	not modelled	24.4	14	PDB header: transport protein Chain: A: PDB Molecule: thioredoxin; PDBTitle: solution structure of thioredoxin from bacteroides vulgatus
43	c2f5iB_	Alignment	not modelled	23.9	18	PDB header: electron transport Chain: B: PDB Molecule: thioredoxin; PDBTitle: structure of trichomonas vaginalis thioredoxin
44	c3d6iB_	Alignment	not modelled	23.5	19	PDB header: oxidoreductase Chain: B: PDB Molecule: monothiol glutaredoxin-3; PDBTitle: structure of the thioredoxin-like domain of yeast2 glutaredoxin 3
45	d1a8la2	Alignment	not modelled	23.5	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
46	c2dmlA_	Alignment	not modelled	23.1	21	PDB header: isomerase Chain: A: PDB Molecule: protein disulfide-isomerase a6; PDBTitle: the solution structure of the first thioredoxin domain of2 mouse protein disulfide-isomerase a6
47	c3gv1A_	Alignment	not modelled	22.3	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: disulfide interchange protein; PDBTitle: crystal structure of disulfide interchange protein from neisseria2 gonorrhoeae
48	d1wdna_	Alignment	not modelled	22.1	11	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
49	d2omza1	Alignment	not modelled	21.7	14	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: Internalin Ig-like domain
50	c1j08A_	Alignment	not modelled	21.4	19	PDB header: isomerase Chain: A: PDB Molecule: glutaredoxin-like protein; PDBTitle: crystal structure of glutaredoxin-like protein from2 pyrococcus horikoshii
51	c2i9hA_	Alignment	not modelled	20.7	18	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin i; PDBTitle: nmr solution structure of the reduced form of thioredoxin 12 from yeast (trx1)
52	d2b5ea4	Alignment	not modelled	20.7	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
53	c3kzqE_	Alignment	not modelled	20.5	21	PDB header: structural genomics, unknown function Chain: E: PDB Molecule: putative uncharacterized protein vp2116; PDBTitle: the crystal structure of the protein with unknown function from vibrio2 parahaemolyticus rimd 2210633
54	c2ppyB_	Alignment	not modelled	20.1	21	PDB header: transport protein Chain: B: PDB Molecule: ionotropic glutamate receptor bacterial homologue; PDBTitle: crystal structure of the glur0 ligand-binding core from nostoc2 punctiforme in complex with (l)-glutamate
55	c1zypB_	Alignment	not modelled	20.0	16	PDB header: oxidoreductase Chain: B: PDB Molecule: alkyl hydroperoxide reductase subunit f; PDBTitle: synchrotron reduced form of the n-terminal domain of2 salmonella typhimurium ahpf

56	c1wu2B_	 Alignment	not modelled	19.3	29	PDB header: structural genomics, biosynthetic protein Chain: B: PDB Molecule: molybdopterin biosynthesis moea protein; PDBTitle: crystal structure of molybdopterin biosynthesis moea2 protein from pyrococcus horikoshii ot3
57	c1w89E_	 Alignment	not modelled	19.0	24	PDB header: electron transport Chain: E: PDB Molecule: thioredoxin; PDBTitle: structure of the reduced form of human thioredoxin 2
58	c3h7mA_	 Alignment	not modelled	18.9	15	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of a histidine kinase sensor domain with2 similarity to periplasmic binding proteins
59	c1yvyA_	 Alignment	not modelled	18.7	18	PDB header: lyase Chain: A: PDB Molecule: phosphoenolpyruvate carboxykinase [atp]; PDBTitle: crystal structure of anaerobiospirillum succiniciproducens2 phosphoenolpyruvate carboxykinase
60	d1thxa_	 Alignment	not modelled	18.5	16	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
61	d1dbya_	 Alignment	not modelled	18.4	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
62	c1zu4A_	 Alignment	not modelled	18.3	16	PDB header: protein transport Chain: A: PDB Molecule: ftsy; PDBTitle: crystal structure of ftsy from mycoplasma mycoides-space2 group p21212
63	c3delC_	 Alignment	not modelled	18.2	11	PDB header: protein binding, transport protein Chain: C: PDB Molecule: arginine binding protein; PDBTitle: the structure of ct381, the arginine binding protein from the2 periplasm chlamydia trachomatis
64	c3kzgB_	 Alignment	not modelled	18.2	14	PDB header: transport protein Chain: B: PDB Molecule: arginine 3rd transport system periplasmic binding PDBTitle: crystal structure of an arginine 3rd transport system2 periplasmic binding protein from legionella pneumophila
65	d2ftsa2	 Alignment	not modelled	18.1	27	Fold: MoeA N-terminal region -like Superfamily: MoeA N-terminal region -like Family: MoeA N-terminal region -like
66	c2vhaB_	 Alignment	not modelled	17.9	18	PDB header: transport protein Chain: B: PDB Molecule: periplasmic binding transport protein; PDBTitle: debp
67	d1l1fa2	 Alignment	not modelled	17.8	12	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Aminoacid dehydrogenases
68	d1eeja1	 Alignment	not modelled	17.7	32	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbC/DsbG C-terminal domain-like
69	d1r89a1	 Alignment	not modelled	17.6	12	Fold: PAP/OAS1 substrate-binding domain Superfamily: PAP/OAS1 substrate-binding domain Family: Archaeal tRNA CCA-adding enzyme substrate-binding domain
70	d1lsta_	 Alignment	not modelled	17.5	18	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
71	c2vimA_	 Alignment	not modelled	17.3	18	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: x-ray structure of fasciola hepatica thioredoxin
72	d1hsla_	 Alignment	not modelled	17.2	6	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
73	c3apsA_	 Alignment	not modelled	17.2	27	PDB header: oxidoreductase Chain: A: PDB Molecule: dnaj homolog subfamily c member 10; PDBTitle: crystal structure of trx4 domain of erdj5
74	c2ieeB_	 Alignment	not modelled	17.2	11	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: probable abc transporter extracellular-binding PDBTitle: crystal structure of yckb_bacsu from bacillus subtilis.2 northeast structural genomics consortium target sr574.
75	c3tcoA_	 Alignment	not modelled	17.1	16	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin (trxa-1); PDBTitle: crystallographic and spectroscopic characterization of sulfobolus2 solfataricus trxa1 provide insights into the determinants of3 thioredoxin fold stability
76	d2bv3a4	 Alignment	not modelled	16.6	16	Fold: Ferredoxin-like Superfamily: EF-G C-terminal domain-like Family: EF-G/eEF-2 domains III and V
77	d2es7a1	 Alignment	not modelled	16.6	21	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: HyaE-like
78	d1m7ta_	 Alignment	not modelled	16.6	16	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
79	c1jzdA_	 Alignment	not modelled	16.5	27	PDB header: oxidoreductase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbc; PDBTitle: dsbc-dsbdalpha complex
80	c2oe0B_	 Alignment	not modelled	16.5	16	PDB header: electron transport Chain: B: PDB Molecule: thioredoxin-3; PDBTitle: crystal structure of mitochondrial thioredoxin 3 from2 saccharomyces cerevisiae
81	c3kbrA_	 Alignment	not modelled	16.4	22	PDB header: lyase Chain: A: PDB Molecule: cyclohexadienyl dehydratase; PDBTitle: the crystal structure of cyclohexadienyl dehydratase

						precursor from2 pseudomonas aeruginosa pa01
82	d2f34a1	Alignment	not modelled	16.3	12	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
83	c1t3bA	Alignment	not modelled	15.8	19	PDB header: isomerase Chain: A: PDB Molecule: thiol:disulfide interchange protein dsbc; PDBTitle: x-ray structure of dsbc from haemophilus influenzae
84	d2cvba1	Alignment	not modelled	15.7	5	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
85	c2ylnA	Alignment	not modelled	15.7	11	PDB header: transport protein Chain: A: PDB Molecule: putative abc transporter, periplasmic binding protein, PDBTitle: crystal structure of the l-cystine solute receptor of2 neisseria gonorrhoeae in the closed conformation
86	d1xwaa	Alignment	not modelled	15.7	18	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
87	d1ep7a	Alignment	not modelled	15.6	11	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
88	c1xbsA	Alignment	not modelled	15.6	21	PDB header: transcription, cell cycle Chain: A: PDB Molecule: dim1-like protein; PDBTitle: crystal structure of human dim2: a dim1-like protein
89	d1ti3a	Alignment	not modelled	15.5	10	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
90	d1t3ba1	Alignment	not modelled	15.4	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: DsbC/DsbG C-terminal domain-like
91	c2xbqB	Alignment	not modelled	15.3	18	PDB header: oxidoreductase Chain: B: PDB Molecule: thioredoxin; PDBTitle: crystal structure of reduced schistosoma mansoni2 thioredoxin pre-protein at 1.7 angstrom
92	c3hypB	Alignment	not modelled	15.3	18	PDB header: electron transport Chain: B: PDB Molecule: thioredoxin; PDBTitle: crystal structure of bacteroides fragilis trxp_s105g mutant
93	c3g41A	Alignment	not modelled	15.1	22	PDB header: transport protein Chain: A: PDB Molecule: amino acid abc transporter, periplasmic amino acid-binding PDBTitle: the structure of cpn0482, the arginine binding protein from the2 periplasm of chlamydia pneumoniae
94	c3kp8A	Alignment	not modelled	15.1	21	PDB header: oxidoreductase Chain: A: PDB Molecule: vkorc1/thioredoxin domain protein; PDBTitle: the thioredoxin-like domain of a vkor homolog from2 synechococcus sp.
95	c3g9bA	Alignment	not modelled	15.0	24	PDB header: transferase Chain: A: PDB Molecule: dolichyl-diphosphooligosaccharide-protein PDBTitle: crystal structure of reduced ost6l
96	c2dj1A	Alignment	not modelled	15.0	11	PDB header: isomerase Chain: A: PDB Molecule: protein disulfide-isomerase a4; PDBTitle: the solution structure of the first thioredoxin domain of2 mouse protein disulfide-isomerase a4
97	c1t00A	Alignment	not modelled	14.8	11	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin; PDBTitle: the structure of thioredoxin from s. coelicolor
98	d1dd9a	Alignment	not modelled	14.7	22	Fold: DNA primase core Superfamily: DNA primase core Family: DNA primase DnaG catalytic core
99	c1dd9A	Alignment	not modelled	14.7	22	PDB header: transferase Chain: A: PDB Molecule: dna primase; PDBTitle: structure of the dnag catalytic core