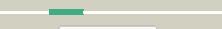
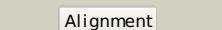
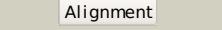
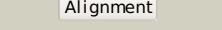
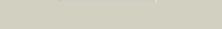
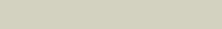


Phyre²

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Description	P15069
Date	Thu Jan 5 11:34:32 GMT 2012
Unique Job ID	f64c5a298b28782e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1z6na1	 Alignment		41.0	12	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
2	c3pxwB_	 Alignment		36.0	11	PDB header: structural protein Chain: B: PDB Molecule: putative flagellar hook-associated protein; PDBTitle: structure of putative flagellar hook-associated protein from vibrio2 parahaemolyticus
3	c2kujA_	 Alignment		32.3	75	PDB header: antimicrobial protein Chain: A: PDB Molecule: acanthaporin; PDBTitle: the solution structure of the dimeric acanthaporin
4	d2f8aa1	 Alignment		28.7	0	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
5	d1mqsa_	 Alignment		25.9	6	Fold: Sec1/munc18-like (SM) proteins Superfamily: Sec1/munc18-like (SM) proteins Family: Sec1/munc18-like (SM) proteins
6	c2he3A_	 Alignment		21.4	5	PDB header: oxidoreductase Chain: A: PDB Molecule: glutathione peroxidase 2; PDBTitle: crystal structure of the selenocysteine to cysteine mutant of human2 glutathione peroxidase 2 (gpx2)
7	d1fuia1	 Alignment		21.3	24	Fold: Reductase/isomerase/elongation factor common domain Superfamily: FucI/AraA C-terminal domain-like Family: L-fucose isomerase, C-terminal domain
8	d1v9wa_	 Alignment		19.7	11	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Txl15-like
9	d1udxa1	 Alignment		19.7	28	Fold: Obg-fold Superfamily: Obg GTP-binding protein N-terminal domain Family: Obg GTP-binding protein N-terminal domain
10	c2ehhE_	 Alignment		18.8	19	PDB header: lyase Chain: E: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 aquifex aeolicus
11	d1lnza1	 Alignment		18.7	17	Fold: Obg-fold Superfamily: Obg GTP-binding protein N-terminal domain Family: Obg GTP-binding protein N-terminal domain

12	c3emxB			18.0	14	PDB header: oxidoreductase Chain: B: PDB Molecule: thioredoxin; PDBTitle: crystal structure of thioredoxin from aeropyrum pernix
13	c2c49A			17.7	26	PDB header: transferase Chain: A: PDB Molecule: sugar kinase mj0406; PDBTitle: crystal structure of methanocaldococcus jannaschii2 nucleoside kinase - an archaeal member of the ribokinase3 family
14	c2hyxA			17.7	5	PDB header: unknown function Chain: A: PDB Molecule: protein dipz; PDBTitle: structure of the c-terminal domain of dipz from mycobacterium2 tuberculosis
15	d1m3va1			17.5	50	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: LIM domain
16	d2j9ga2			17.0	25	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
17	d2b5ea1			16.0	12	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
18	d1ulza2			15.8	21	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
19	d1w96a2			15.7	17	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
20	d1woua			15.2	11	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Txnl5-like
21	c3qdnA		not modelled	14.8	9	PDB header: oxidoreductase Chain: A: PDB Molecule: putative thioredoxin protein; PDBTitle: putative thioredoxin protein from salmonella typhimurium
22	c3bf5A		not modelled	14.6	11	PDB header: transferase Chain: A: PDB Molecule: ribokinase related protein; PDBTitle: crystal structure of putative ribokinase (10640157) from thermoplasma2 acidophilum at 1.91 a resolution
23	c3b1qD		not modelled	14.1	29	PDB header: transferase Chain: D: PDB Molecule: ribokinase, putative; PDBTitle: structure of burkholderia thailandensis nucleoside kinase (bthnk) in2 complex with inosine
24	d1epua		not modelled	13.8	26	Fold: Sec1/munc18-like (SM) proteins Superfamily: Sec1/munc18-like (SM) proteins Family: Sec1/munc18-like (SM) proteins
25	d1o73a		not modelled	13.7	9	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
26	d1nhoa		not modelled	12.6	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
27	c3cynC		not modelled	12.5	5	PDB header: oxidoreductase Chain: C: PDB Molecule: probable glutathione peroxidase 8; PDBTitle: the structure of human gpx8
28	c3me5A		not modelled	12.4	63	PDB header: transferase Chain: A: PDB Molecule: cytosine-specific methyltransferase; PDBTitle: crystal structure of putative dna cytosine methylase from shigella2 flexneri 2a str. 301
						Fold: Four-helical up-and-down bundle

29	d1st6a4	Alignment	not modelled	12.1	12	Superfamily: alpha-catenin/vinculin-like Family: alpha-catenin/vinculin
30	d2gs4a1	Alignment	not modelled	11.5	14	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ycf1-like
31	c215IA_	Alignment	not modelled	11.2	14	PDB header: transport protein Chain: A: PDB Molecule: thioredoxin; PDBTitle: solution structure of thioredoxin from bacteroides vulgatus
32	c3ia1A_	Alignment	not modelled	10.8	14	PDB header: oxidoreductase Chain: A: PDB Molecule: thio-disulfide isomerase/thioredoxin; PDBTitle: crystal structure of thio-disulfide isomerase from thermus2 thermophilus
33	d1vl6a2	Alignment	not modelled	10.7	26	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Malic enzyme N-domain
34	d1j08a2	Alignment	not modelled	10.5	25	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
35	d2fy6a1	Alignment	not modelled	10.2	15	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
36	c3fkfC_	Alignment	not modelled	10.2	9	PDB header: oxidoreductase Chain: C: PDB Molecule: thiol-disulfide oxidoreductase; PDBTitle: thiol-disulfide oxidoreductase from bacteroides fragilis nctc 9343
37	c2l57A_	Alignment	not modelled	10.2	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of an uncharacterized thioredoxin-like protein from2 clostridium perfringens
38	c3fvwA_	Alignment	not modelled	10.1	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative nad(p)h-dependent fmn reductase; PDBTitle: crystal structure of the q8dw8_strmu protein from2 streptococcus mutans. northeast structural genomics3 consortium target smr99.
39	c2vimA_	Alignment	not modelled	10.1	8	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: x-ray structure of fasciola hepatica thioredoxin
40	c1ylaB_	Alignment	not modelled	10.0	15	PDB header: ligase Chain: B: PDB Molecule: ubiquitin-conjugating enzyme e2-25 kda; PDBTitle: ubiquitin-conjugating enzyme e2-25 kda (huntington interacting protein2 2)
41	c3go6B_	Alignment	not modelled	10.0	27	PDB header: transferase Chain: B: PDB Molecule: ribokinase rbsk; PDBTitle: crystal structure of m. tuberculosis ribokinase (rv2436) in2 complex with ribose and amp-pnp
42	d2dcna1	Alignment	not modelled	9.9	22	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
43	c3dwvB_	Alignment	not modelled	9.9	9	PDB header: oxidoreductase Chain: B: PDB Molecule: glutathione peroxidase-like protein; PDBTitle: glutathione peroxidase-type tryparedoxin peroxidase,2 oxidized form
44	d1xwaa	Alignment	not modelled	9.8	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
45	c2h2yA_	Alignment	not modelled	9.7	6	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ubiquitin-conjugating enzyme; PDBTitle: crystal structure of ubiquitin conjugating enzyme e2 from plasmodium falciparum
46	c3lhxA_	Alignment	not modelled	9.6	21	PDB header: transferase Chain: A: PDB Molecule: ketodeoxygluconokinase; PDBTitle: crystal structure of a ketodeoxygluconokinase (kdgk) from2 shigella flexneri
47	c3kp8A_	Alignment	not modelled	9.6	10	PDB header: oxidoreductase Chain: A: PDB Molecule: vkorc1/thioredoxin domain protein; PDBTitle: the thioredoxin-like domain of a vkor homolog from2 synechococcus sp.
48	d1dn1a	Alignment	not modelled	9.5	17	Fold: Sec1/munc18-like (SM) proteins Superfamily: Sec1/munc18-like (SM) proteins Family: Sec1/munc18-like (SM) proteins
49	c3lwaA_	Alignment	not modelled	9.5	15	PDB header: isomerase Chain: A: PDB Molecule: secreted thiol-disulfide isomerase; PDBTitle: the crystal structure of a secreted thiol-disulfide2 isomerase from corynebacterium glutamicum to 1.75a
50	c2dmlA_	Alignment	not modelled	9.3	9	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
51	d2djja1	Alignment	not modelled	9.1	5	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: PDI-like
52	c2p31B_	Alignment	not modelled	9.1	14	PDB header: oxidoreductase Chain: B: PDB Molecule: glutathione peroxidase 7; PDBTitle: crystal structure of human glutathione peroxidase 7
53	c2ywia_	Alignment	not modelled	9.0	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical conserved protein; PDBTitle: crystal structure of uncharacterized conserved protein from2 geobacillus kaustophilus
54	c2e0qA_	Alignment	not modelled	8.9	8	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin; PDBTitle: crystal structure of k53e thioredoxin from sulfolobus2 tokodaii strain7
						Fold: Thioredoxin fold

55	d1i5ga_	Alignment	not modelled	8.8	9	Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
56	d1t6ex_	Alignment	not modelled	8.8	19	Fold: Acid proteases Superfamily: Acid proteases Family: Pepsin-like
57	d1y76a1	Alignment	not modelled	8.8	22	Fold: L27 domain Superfamily: L27 domain Family: L27 domain
58	d2akja4	Alignment	not modelled	8.7	24	Fold: Nitrite and sulphite reductase 4Fe-4S domain-like Superfamily: Nitrite and sulphite reductase 4Fe-4S domain-like Family: Nitrite and sulphite reductase 4Fe-4S domain-like
59	c3ha9A_	Alignment	not modelled	8.6	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized thioredoxin-like protein; PDBTitle: the 1.7 Å crystal structure of a thioredoxin-like protein from <i>2 aeropyrum pernix</i>
60	c1s6xA_	Alignment	not modelled	8.5	33	PDB header: toxin Chain: A: PDB Molecule: kvap channel; PDBTitle: solution structure of vstx
61	c2wx4C_	Alignment	not modelled	8.4	17	PDB header: structural protein Chain: C: PDB Molecule: decapping protein 1; PDBTitle: asymmetric trimer of the <i>drosophila melanogaster</i> dcp1 c-2 terminal domain
62	d1beta_	Alignment	not modelled	8.2	38	Fold: Cystine-knot cytokines Superfamily: Cystine-knot cytokines Family: Neurotrophin
63	c3hypB_	Alignment	not modelled	8.2	9	PDB header: electron transport Chain: B: PDB Molecule: thioredoxin; PDBTitle: crystal structure of <i>bacteroides fragilis</i> trxp_s105g mutant
64	c3h8qB_	Alignment	not modelled	8.1	17	PDB header: oxidoreductase Chain: B: PDB Molecule: thioredoxin reductase 3; PDBTitle: crystal structure of glutaredoxin domain of human thioredoxin2 reductase 3
65	d1jb0j_	Alignment	not modelled	8.0	19	Fold: Single transmembrane helix Superfamily: Subunit IX of photosystem I reaction centre, Psaj Family: Subunit IX of photosystem I reaction centre, Psaj
66	c3fxaA_	Alignment	not modelled	8.0	23	PDB header: sugar binding protein Chain: A: PDB Molecule: sis domain protein; PDBTitle: crystal structure of a putative sugar-phosphate isomerase2 (lmoF2365_0531) from <i>listeria monocytogenes</i> str. 4b f2365 at 1.60 Å resolution
67	c3pp5A_	Alignment	not modelled	8.0	17	PDB header: structural protein Chain: A: PDB Molecule: brk1; PDBTitle: high-resolution structure of the trimeric scar/wave complex precursor2 brk1
68	d1uj4a1	Alignment	not modelled	7.9	24	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
69	d1qgva_	Alignment	not modelled	7.9	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: spliceosomal protein U5-15Kd
70	c3s5oA_	Alignment	not modelled	7.8	14	PDB header: lyase Chain: A: PDB Molecule: 4-hydroxy-2-oxoglutarate aldolase, mitochondrial; PDBTitle: crystal structure of human 4-hydroxy-2-oxoglutarate aldolase bound to pyruvate
71	c3r74B_	Alignment	not modelled	7.8	18	PDB header: lyase, biosynthetic protein Chain: B: PDB Molecule: anthranilate/para-aminobenzoate synthases component; PDBTitle: crystal structure of 2-amino-2-desoxyisochorismate synthase (adic2 synthase) from <i>burkholderia lata</i> 383
72	d1lk5a1	Alignment	not modelled	7.8	21	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
73	c2dj0A_	Alignment	not modelled	7.8	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: thioredoxin-related transmembrane protein 2; PDBTitle: the solution structure of the thioredoxin domain of human2 thioredoxin-related transmembrane protein 2
74	c3hz4A_	Alignment	not modelled	7.7	18	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: crystal structure of thioredoxin from <i>methanoscincus mazei</i>
75	c3ij2B_	Alignment	not modelled	7.6	38	PDB header: hormone/protein binding Chain: B: PDB Molecule: beta-nerve growth factor; PDBTitle: ligand-receptor structure
76	d1m0sa1	Alignment	not modelled	7.5	14	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
77	d1rpua_	Alignment	not modelled	7.5	44	Fold: Tombusvirus P19 core protein, VP19 Superfamily: Tombusvirus P19 core protein, VP19 Family: Tombusvirus P19 core protein, VP19
78	c1rpua_	Alignment	not modelled	7.5	44	PDB header: rna binding protein/rna Chain: A: PDB Molecule: 19 kda protein; PDBTitle: crystal structure of <i>cirv</i> p19 bound to sirna
79	d1o8xa_	Alignment	not modelled	7.5	9	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
80	d1fp1d1	Alignment	not modelled	7.4	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Plant O-methyltransferase, N-terminal domain
						PDB header: transcription, cell cycle

81	c1xbsA	Alignment	not modelled	7.4	27	Chain: A: PDB Molecule: dim1-like protein; PDBTitle: crystal structure of human dim2: a dim1-like protein
82	c2nwhA	Alignment	not modelled	7.4	21	PDB header: signaling protein,transferase Chain: A: PDB Molecule: carbohydrate kinase; PDBTitle: carbohydrate kinase from agrobacterium tumefaciens
83	c1v98A	Alignment	not modelled	7.4	14	PDB header: oxidoreductase Chain: A: PDB Molecule: thioredoxin; PDBTitle: crystal structure analysis of thioredoxin from thermus thermophilus
84	c2vc6A	Alignment	not modelled	7.3	19	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: structure of mosa from s. meliloti with pyruvate bound
85	c2diyA	Alignment	not modelled	7.2	8	PDB header: protein binding Chain: A: PDB Molecule: thioredoxin-like protein 2; PDBTitle: the solution structure of the thioredoxin domain of human2 thioredoxin-like protein 2
86	d2elba1	Alignment	not modelled	7.2	11	Fold: BAR/MD domain-like Superfamily: BAR/MD domain-like Family: BAR domain
87	c1lnzA	Alignment	not modelled	7.0	17	PDB header: cell cycle Chain: A: PDB Molecule: spo0b-associated gtp-binding protein; PDBTitle: structure of the obg gtp-binding protein
88	c2vocA	Alignment	not modelled	7.0	9	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin; PDBTitle: thioredoxin a active site mutants form mixed disulfide2 dimers that resemble enzyme-substrate reaction3 intermediate
89	d2gyqa1	Alignment	not modelled	7.0	15	Fold: Ferritin-like Superfamily: Ferritin-like Family: YcfF-like
90	c3etnD	Alignment	not modelled	6.8	4	PDB header: isomerase Chain: D: PDB Molecule: putative phosphosugar isomerase involved in capsule PDBTitle: crystal structure of putative phosphosugar isomerase involved in2 capsule formation (yp_209877.1) from bacteroides fragilis nctc 93433 at 1.70 a resolution
91	c3dxbE	Alignment	not modelled	6.8	14	PDB header: splicing, transcription Chain: E: PDB Molecule: thioredoxin n-terminally fused to puf60(uhm); PDBTitle: structure of the uhm domain of puf60 fused to thioredoxin
92	d1bndb	Alignment	not modelled	6.7	38	Fold: Cystine-knot cytokines Superfamily: Cystine-knot cytokines Family: Neurotrophin
93	d2ucza	Alignment	not modelled	6.7	19	Fold: UBC-like Superfamily: UBC-like Family: UBC-related
94	d2b5xa1	Alignment	not modelled	6.6	10	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
95	c2e7pC	Alignment	not modelled	6.5	19	PDB header: electron transport Chain: C: PDB Molecule: glutaredoxin; PDBTitle: crystal structure of the holo form of glutaredoxin c1 from populus2 tremula x tremuloides
96	c2j6pF	Alignment	not modelled	6.5	20	PDB header: oxidoreductase Chain: F: PDB Molecule: sb(v)-as(v) reductase; PDBTitle: structure of as-sb reductase from leishmania major
97	d1zmaa1	Alignment	not modelled	6.5	14	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
98	c1t00A	Alignment	not modelled	6.5	9	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin; PDBTitle: the structure of thioredoxin from s. coelicolor
99	d2ifqa1	Alignment	not modelled	6.4	18	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase