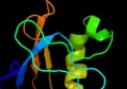
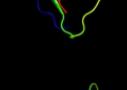
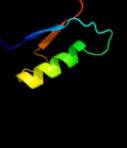


Phyre²

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Description	P52060
Date	Thu Jan 5 12:05:05 GMT 2012
Unique Job ID	eb70b3689f68f310

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1yh5a1	Alignment		100.0	98	Fold: YggU-like Superfamily: YggU-like Family: YggU-like
2	d1jrma_	Alignment		99.9	23	Fold: YggU-like Superfamily: YggU-like Family: YggU-like
3	c3t5sA_	Alignment		85.5	13	PDB header: immune system Chain: A: PDB Molecule: macrophage migration inhibitory factor; PDBTitle: structure of macrophage migration inhibitory factor from giardia2 lamblia
4	d1t6aa_	Alignment		75.7	36	Fold: TBP-like Superfamily: Rbstp2229 protein Family: Rbstp2229 protein
5	d1ffvb2	Alignment		64.3	4	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
6	d1v97a5	Alignment		63.1	13	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
7	d2gdga1	Alignment		61.5	18	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MIF-related
8	d1n62b2	Alignment		59.0	9	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
9	c3hrdF_	Alignment		56.8	7	PDB header: oxidoreductase Chain: F: PDB Molecule: nicotinate dehydrogenase medium molybdopterin PDBTitle: crystal structure of nicotinate dehydrogenase
10	c3b64A_	Alignment		53.6	9	PDB header: cytokine Chain: A: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: macrophage migration inhibitory factor (mif) from2 /leishmania major
11	d1fima_	Alignment		51.8	18	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MIF-related

12	c3eubL	Alignment		49.7	13	PDB header: oxidoreductase Chain: L: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of desulfo-xanthine oxidase with xanthine
13	d1gd0a	Alignment		48.3	18	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MIF-related
14	d1t3qb2	Alignment		48.1	16	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
15	c1n62E	Alignment		47.4	9	PDB header: oxidoreductase Chain: E: PDB Molecule: carbon monoxide dehydrogenase large chain; PDBTitle: crystal structure of the mo,cu-co dehydrogenase (codh), n-2 butylisocyanide-bound state
16	c1ffvB	Alignment		46.9	4	PDB header: hydrolase Chain: B: PDB Molecule: cutl, molybdoprotein of carbon monoxide PDBTitle: carbon monoxide dehydrogenase from hydrogenophaga2 pseudoflava
17	d1b24a1	Alignment		46.4	37	Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Group I mobile intron endonuclease
18	d1jrob2	Alignment		46.3	11	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
19	c3fwta	Alignment		41.6	9	PDB header: cytokine Chain: A: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: crystal structure of leishmania major mif2
20	c1sb3D	Alignment		40.9	9	PDB header: oxidoreductase Chain: D: PDB Molecule: 4-hydroxybenzoyl-coa reductase alpha subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica
21	d1dpfa	Alignment	not modelled	40.6	14	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MIF-related
22	d1hfoa	Alignment	not modelled	37.7	12	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MIF-related
23	c3gacD	Alignment	not modelled	37.6	20	PDB header: cytokine Chain: D: PDB Molecule: macrophage migration inhibitory factor-like PDBTitle: structure of mif with hpp
24	c1t3qb	Alignment	not modelled	37.5	20	PDB header: oxidoreductase Chain: B: PDB Molecule: quinoline 2-oxidoreductase large subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86
25	c2w54F	Alignment	not modelled	37.1	11	PDB header: oxidoreductase Chain: F: PDB Molecule: xanthine dehydrogenase; PDBTitle: crystal structure of xanthine dehydrogenase from2 rhodobacter capsulatus in complex with bound inhibitor3 pterin-6-aldehyde
26	d1rm6a2	Alignment	not modelled	36.7	9	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
27	c2xczA	Alignment	not modelled	30.0	7	PDB header: immune system Chain: A: PDB Molecule: possible ats1-like light-inducible protein; PDBTitle: crystal structure of macrophage migration inhibitory factor2 homologue from prochlorococcus marinus
28	d1uiza	Alignment	not modelled	28.1	20	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF

					Family: MIF-related
29	c2os5C_	Alignment	not modelled	27.7	PDB header: cytokine Chain: C: PDB Molecule: acemif; PDBTitle: macrophage migration inhibitory factor from ancylostoma ceylanicum
30	c210ka_	Alignment	not modelled	26.8	PDB header: transcription Chain: A: PDB Molecule: stage iii sporulation protein d; PDBTitle: nmr solution structure of a transcription factor spoIID in complex2 with dna
31	c3abfB_	Alignment	not modelled	25.1	PDB header: isomerase Chain: B: PDB Molecule: 4-oxalocrotonate tautomerase; PDBTitle: crystal structure of a 4-oxalocrotonate tautomerase homologue2 (tthb242)
32	c1wygA_	Alignment	not modelled	24.9	PDB header: oxidoreductase Chain: A: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of a rat xanthine dehydrogenase triple mutant2 (c535a, c992r and c1324s)
33	d1otfa_	Alignment	not modelled	24.0	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
34	c3glaA_	Alignment	not modelled	23.9	PDB header: chaperone Chain: A: PDB Molecule: low molecular weight heat shock protein; PDBTitle: crystal structure of the hspa from xanthomonas axonopodis
35	c3m20A_	Alignment	not modelled	23.4	PDB header: isomerase Chain: A: PDB Molecule: 4-oxalocrotonate tautomerase, putative; PDBTitle: crystal structure of dmpI from archaeoglobus fulgidus determined to 2.237 angstroms resolution
36	c3mb2G_	Alignment	not modelled	22.2	PDB header: isomerase Chain: G: PDB Molecule: 4-oxalocrotonate tautomerase family enzyme - alpha subunit; PDBTitle: kinetic and structural characterization of a heterohexamer 4-2 oxalocrotonate tautomerase from chloroflexus aurantiacus j-10-fl:3 implications for functional and structural diversity in the4 tautomerase superfamily
37	d1xdpa2	Alignment	not modelled	21.4	Fold: PHP14-like Superfamily: PHP14-like Family: PPK middle domain-like
38	d1bjpa_	Alignment	not modelled	21.4	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
39	c3p1tB_	Alignment	not modelled	20.9	PDB header: transferase Chain: B: PDB Molecule: putative histidinol-phosphate aminotransferase; PDBTitle: crystal structure of a putative aminotransferase (bpsl1724) from2 burkholderia pseudomallei k96243 at 2.60 a resolution
40	d1gyxa_	Alignment	not modelled	20.1	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
41	c2x4kB_	Alignment	not modelled	18.7	PDB header: isomerase Chain: B: PDB Molecule: 4-oxalocrotonate tautomerase; PDBTitle: crystal structure of sar1376, a putative 4-oxalocrotonate2 tautomerase from the methicillin-resistant staphylococcus3 aureus (mrsa)
42	c2op8A_	Alignment	not modelled	18.6	PDB header: isomerase Chain: A: PDB Molecule: probable tautomerase ywhb; PDBTitle: crystal structure of ywhb- homologue of 4-oxalocrotonate tautomerase
43	d1oeya_	Alignment	not modelled	18.3	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: PB1 domain
44	d1qbjc_	Alignment	not modelled	18.1	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
45	d1mwwa_	Alignment	not modelled	18.0	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: Hypothetical protein HI1388.1
46	d2aalal_	Alignment	not modelled	17.8	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: MSAD-like
47	c3ry0A_	Alignment	not modelled	17.7	PDB header: isomerase Chain: A: PDB Molecule: putative tautomerase; PDBTitle: crystal structure of tomN, a 4-oxalocrotonate tautomerase homologue in2 tomaty mycin biosynthetic pathway
48	d2gxba1	Alignment	not modelled	17.1	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
49	d1qgpa_	Alignment	not modelled	17.1	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Z-DNA binding domain
50	c1z2zb_	Alignment	not modelled	16.9	PDB header: lyase Chain: B: PDB Molecule: probable trna pseudouridine synthase d; PDBTitle: crystal structure of the putative trna pseudouridine2 synthase d (trud) from methanosaCina mazei, northeast3 structural genomics target mar1
51	c3fkdc_	Alignment	not modelled	16.9	PDB header: lyase Chain: C: PDB Molecule: l-threonine-o-3-phosphate decarboxylase; PDBTitle: the crystal structure of l-threonine-o-3-phosphate2 decarboxylase from porphyromonas gingivalis
52	c2kvra_	Alignment	not modelled	16.7	PDB header: protein binding Chain: A: PDB Molecule: ubiquitin carboxyl-terminal hydrolase 7; PDBTitle: solution nmr structure of human ubiquitin specific protease2 usp7 ubl domain (residues 537-664). nesg target hr4395c/3 sgc-toronto

53	c2ormA		Alignment	not modelled	15.6	14	PDB header: isomerase Chain: A: PDB Molecule: probable tautomerase hp0924; PDBTitle: crystal structure of the 4-oxalocrotonate tautomerase homologue dmp12 from helicobacter pylori.
54	c1sb7A		Alignment	not modelled	14.9	19	PDB header: lyase Chain: A: PDB Molecule: tRNA pseudouridine synthase d; PDBTitle: crystal structure of the e.coli pseudouridine synthase trud
55	d1szwa		Alignment	not modelled	14.9	19	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: tRNA pseudouridine synthase TruD
56	d1wh0a		Alignment	not modelled	14.6	12	Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: GS domain
57	c3ggeA		Alignment	not modelled	14.5	14	PDB header: protein binding Chain: A: PDB Molecule: pdz domain-containing protein gipc2; PDBTitle: crystal structure of the pdz domain of pdz domain-containing protein2 gipc2
58	c3n4dF		Alignment	not modelled	13.8	11	PDB header: hydrolase Chain: F: PDB Molecule: putative tautomerase; PDBTitle: crystal structure of cg10062 inactivated by(r)-oxirane-2-carboxylate
59	c2flzC		Alignment	not modelled	13.7	11	PDB header: hydrolase Chain: C: PDB Molecule: cis-3-chloroacrylic acid dehalogenase; PDBTitle: the x-ray structure of cis-3-chloroacrylic acid dehalogenase (cis-2 caad) with a sulfate ion bound in the active site
60	d2bgxa2		Alignment	not modelled	11.5	24	Fold: N-acetyl muramoyl-L-alanine amidase-like Superfamily: N-acetyl muramoyl-L-alanine amidase-like Family: N-acetyl muramoyl-L-alanine amidase-like
61	c219fA		Alignment	not modelled	11.3	14	PDB header: transferase Chain: A: PDB Molecule: cale8; PDBTitle: nmr solution structure of meacp
62	d1vlba4		Alignment	not modelled	10.9	11	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
63	d1w55a2		Alignment	not modelled	10.9	3	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
64	c2pmpA		Alignment	not modelled	10.8	15	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase; PDBTitle: structure of 2c-methyl-d-erythritol 2,4-cyclodiphosphate synthase from2 the isoprenoid biosynthetic pathway of arabidopsis thaliana
65	d1o57a1		Alignment	not modelled	10.3	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: N-terminal domain of Bacillus PurR
66	d1jmxa1		Alignment	not modelled	10.3	25	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
67	c2oghA		Alignment	not modelled	10.2	20	PDB header: translation Chain: A: PDB Molecule: eukaryotic translation initiation factor eif-1; PDBTitle: solution structure of yeast eif1
68	c3re3B		Alignment	not modelled	10.0	18	PDB header: lyase Chain: B: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase; PDBTitle: crystal structure of 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase from francisella tularensis
69	c3b6nA		Alignment	not modelled	9.9	15	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate PDBTitle: crystal structure of 2c-methyl-d-erythritol 2,4-2 cyclodiphosphate synthase pv003920 from plasmodium vivax
70	d1ee0a2		Alignment	not modelled	9.8	0	Fold: Thiolase-like Superfamily: Thiolase-like Family: Chalcone synthase-like
71	d1v2da		Alignment	not modelled	9.5	28	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: AAT-like
72	d1gx1a		Alignment	not modelled	9.4	10	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
73	d1iv3a		Alignment	not modelled	9.3	15	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
74	d1kwaa		Alignment	not modelled	9.1	19	Fold: PDZ domain-like Superfamily: PDZ domain-like Family: PDZ domain
75	d1vh8a		Alignment	not modelled	8.9	10	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
76	c3n0kA		Alignment	not modelled	8.7	23	PDB header: hydrolase inhibitor Chain: A: PDB Molecule: serine protease inhibitor 1; PDBTitle: proteinase inhibitor from coprinopsis cinerea
77	c3f0gA		Alignment	not modelled	8.6	8	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase; PDBTitle: co-crystal structure of 2c-methyl-d-erythritol 2,4-cyclodiphosphate synthase with cmp
							Fold: PHP14-like

78	d2o8ra2	Alignment	not modelled	8.6	7	Superfamily: PHP14-like Family: PPK middle domain-like
79	d1pbya1	Alignment	not modelled	8.5	8	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
80	c2gzbA	Alignment	not modelled	8.5	10	PDB header: signaling protein Chain: A: PDB Molecule: prkca-binding protein; PDBTitle: the crystal structure of the pdz domain of human pick1 (casp target)
81	c3r1fO	Alignment	not modelled	8.5	20	PDB header: transcription Chain: O: PDB Molecule: esx-1 secretion-associated regulator esp; PDBTitle: crystal structure of a key regulator of virulence in mycobacterium2 tuberculosis
82	d1p1da2	Alignment	not modelled	8.4	17	Fold: PDZ domain-like Superfamily: PDZ domain-like Family: PDZ domain
83	c3hdoB	Alignment	not modelled	8.4	15	PDB header: transferase Chain: B: PDB Molecule: histidinol-phosphate aminotransferase; PDBTitle: crystal structure of a histidinol-phosphate aminotransferase from2 <i>geobacter metallireducens</i>
84	d1v5ma	Alignment	not modelled	8.2	26	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Pleckstrin-homology domain (PH domain)
85	c1vlbA	Alignment	not modelled	8.1	11	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde oxidoreductase; PDBTitle: structure refinement of the aldehyde oxidoreductase from2 <i>desulfovibrio gigas</i> at 1.28 a
86	d1wh5a	Alignment	not modelled	8.1	5	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
87	d1u2ca2	Alignment	not modelled	8.0	8	Fold: Dystroglycan, domain 2 Superfamily: Dystroglycan, domain 2 Family: Dystroglycan, domain 2
88	c3i0oA	Alignment	not modelled	7.9	8	PDB header: transferase Chain: A: PDB Molecule: spectinomycin phosphotransferase; PDBTitle: crystal structure of spectinomycin phosphotransferase,2 aph(9)-ia, in complex with adp and spectinomycin
89	d1okta2	Alignment	not modelled	7.9	25	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione S-transferase (GST), N-terminal domain
90	d1fg7a	Alignment	not modelled	7.9	16	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: AAT-like
91	c3cbfA	Alignment	not modelled	7.8	23	PDB header: transferase Chain: A: PDB Molecule: alpha-aminodipate aminotransferase; PDBTitle: crystal structure of lysn, alpha-aminodipate2 aminotransferase, from <i>thermus thermophilus hb27</i>
92	c3ftbA	Alignment	not modelled	7.8	16	PDB header: transferase Chain: A: PDB Molecule: histidinol-phosphate aminotransferase; PDBTitle: the crystal structure of the histidinol-phosphate2 aminotransferase from <i>clostridium acetobutylicum</i>
93	c2eeiA	Alignment	not modelled	7.7	17	PDB header: metal binding protein Chain: A: PDB Molecule: pdz domain-containing protein 1; PDBTitle: solution structure of second pdz domain of pdz domain2 containing protein 1
94	d1dgja4	Alignment	not modelled	7.7	4	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
95	c2d92A	Alignment	not modelled	7.6	16	PDB header: protein binding Chain: A: PDB Molecule: inad-like protein; PDBTitle: solution structure of the fifth pdz domain of inad-like2 protein
96	d1duga2	Alignment	not modelled	7.6	0	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione S-transferase (GST), N-terminal domain
97	c2y0fD	Alignment	not modelled	7.6	15	PDB header: oxidoreductase Chain: D: PDB Molecule: 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase; PDBTitle: structure of gcpe (ispG) from <i>thermus thermophilus hb27</i>
98	d1glqa2	Alignment	not modelled	7.5	15	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione S-transferase (GST), N-terminal domain
99	c1qysA	Alignment	not modelled	7.5	13	PDB header: de novo protein Chain: A: PDB Molecule: top7; PDBTitle: crystal structure of top7: a computationally designed2 protein with a novel fold