



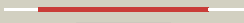





















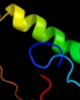






Phyre2

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Description	P75825
Date	Wed Jan 25 15:21:03 GMT 2012
Unique Job ID	dc521733e5ec4a3e

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1gnta_	 Alignment		100.0	41	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Hybrid cluster protein (prismane protein)
2	d1gnla_	 Alignment		100.0	42	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Hybrid cluster protein (prismane protein)
3	d1oaoa_	 Alignment		100.0	20	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Carbon monoxide dehydrogenase
4	d1su7a_	 Alignment		100.0	20	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Carbon monoxide dehydrogenase
5	d1jqka_	 Alignment		100.0	21	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Carbon monoxide dehydrogenase
6	c1jqkE_	 Alignment		100.0	21	PDB header: oxidoreductase Chain: E: PDB Molecule: carbon monoxide dehydrogenase; PDBTitle: crystal structure of carbon monoxide dehydrogenase from2 rhodospirillum rubrum
7	c3cf4A_	 Alignment		100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: acetyl-coa decarboxylase/synthase alpha subunit; PDBTitle: structure of the codh component of the m. barkeri acids complex
8	d1ru3a_	 Alignment		97.6	15	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Acetyl-CoA synthase
9	d1h3da2	 Alignment		56.9	17	Fold: Ferredoxin-like Superfamily: GlnB-like Family: ATP phosphoribosyltransferase (ATP-PRTase, HisG), regulatory C-terminal domain
10	c3hrdF_	 Alignment		52.9	10	PDB header: oxidoreductase Chain: F: PDB Molecule: nicotinate dehydrogenase medium molybdopterin PDBTitle: crystal structure of nicotinate dehydrogenase
11	c3h7uA_	 Alignment		51.3	14	PDB header: oxidoreductase Chain: A: PDB Molecule: aldo-keto reductase; PDBTitle: crystal structure of the plant stress-response enzyme akr4c9

12	d2gp4a2	Alignment		50.1	18	Fold: IlvD/EDD N-terminal domain-like Superfamily: IlvD/EDD N-terminal domain-like Family: lvD/EDD N-terminal domain-like
13	d1n62b2	Alignment		47.9	14	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
14	d1rm6a2	Alignment		43.8	23	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
15	c1n62E_	Alignment		41.5	14	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	d1ws6a1	Alignment		41.1	19	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: YhhF-like
17	d1pama4	Alignment		39.8	23	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
18	d1oaoc_	Alignment		37.5	11	Fold: Prismane protein-like Superfamily: Prismane protein-like Family: Acetyl-CoA synthase
19	d1nh8a2	Alignment		36.9	13	Fold: Ferredoxin-like Superfamily: GlnB-like Family: ATP phosphoribosyltransferase (ATP-PRTase, HisG), regulatory C-terminal domain
20	c3ijdB_	Alignment		35.4	14	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: uncharacterized protein cthe_2304 from clostridium2 thermocellum binds two copies of 5-methyl-5,6,7,8-3 tetrahydrofolic acid
21	c3enoB_	Alignment	not modelled	35.2	12	PDB header: hydrolase/unknown function Chain: B: PDB Molecule: putative o-sialoglycoprotein endopeptidase; PDBTitle: crystal structure of pyrococcus furiosus pcc1 in complex2 with thermoplasma acidophilum kae1
22	c3rxyA_	Alignment	not modelled	34.1	25	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: nif3 protein; PDBTitle: crystal structure of nif3 superfamily protein from spharobacter2 thermophilus
23	d2h5fa1	Alignment	not modelled	32.9	41	Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Snake venom toxins
24	c2dy0A_	Alignment	not modelled	32.9	15	PDB header: transferase Chain: A: PDB Molecule: adenine phosphoribosyltransferase; PDBTitle: crystal structure of project jw0458 from escherichia coli
25	d2ex2a1	Alignment	not modelled	31.8	19	Fold: beta-lactamase/transpeptidase-like Superfamily: beta-lactamase/transpeptidase-like Family: Dac-like
26	d1dx5i2	Alignment	not modelled	31.3	47	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: EGF/Laminin Family: EGF-type module
27	d2c4ka2	Alignment	not modelled	30.0	21	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
28	c3lpnB_	Alignment	not modelled	29.1	24	PDB header: transferase Chain: B: PDB Molecule: ribose-phosphate pyrophosphokinase; PDBTitle: crystal structure of the phosphoribosylpyrophosphate (prpp) synthetase2 from thermoplasma volcanium in complex with an atp analog (ampcpp).

29	c2ivoC	Alignment	not modelled	27.8	14	PDB header: hydrolase Chain: C: PDB Molecule: up1; PDBTitle: structure of up1 protein
30	d1hw6a	Alignment	not modelled	27.6	14	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
31	c1sb3D	Alignment	not modelled	26.6	23	PDB header: oxidoreductase Chain: D: PDB Molecule: 4-hydroxybenzoyl-coa reductase alpha subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica
32	c2vd3B	Alignment	not modelled	24.8	20	PDB header: transferase Chain: B: PDB Molecule: atp phosphoribosyltransferase; PDBTitle: the structure of histidine inhibited hisg from2 methanobacterium thermoautotrophicum
33	d1mmca	Alignment	not modelled	24.6	32	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant lectins/antimicrobial peptides Family: Antimicrobial peptide 2, AC-AMP2
34	c3cixA	Alignment	not modelled	24.3	14	PDB header: adomet binding protein Chain: A: PDB Molecule: feFe-hydrogenase maturase; PDBTitle: x-ray structure of the [feFe]-hydrogenase maturase hyde from2 thermotoga maritima in complex with thiocyanate
35	c3it4C	Alignment	not modelled	23.9	18	PDB header: transferase Chain: C: PDB Molecule: arginine biosynthesis bifunctional protein argj PDBTitle: the crystal structure of ornithine acetyltransferase from2 mycobacterium tuberculosis (rv1653) at 1.7 a
36	d1p94a	Alignment	not modelled	23.8	25	Fold: Ribbon-helix-helix Superfamily: Ribbon-helix-helix Family: CopG-like
37	d1vlba4	Alignment	not modelled	23.7	13	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
38	d1ffvb2	Alignment	not modelled	23.6	13	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
39	d1s0ya	Alignment	not modelled	23.3	53	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
40	d2h7za1	Alignment	not modelled	23.2	35	Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Snake venom toxins
41	d1dkua2	Alignment	not modelled	22.0	21	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
42	c3e5aB	Alignment	not modelled	21.5	86	PDB header: transferase Chain: B: PDB Molecule: targeting protein for xklp2; PDBTitle: crystal structure of aurora a in complex with vx-680 and tpx2
43	d1pyfa	Alignment	not modelled	20.5	18	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
44	c2wtoB	Alignment	not modelled	20.5	26	PDB header: metal binding protein Chain: B: PDB Molecule: orf131 protein; PDBTitle: crystal structure of apo-form czce from c. metallidurans ch34
45	d1t3qb2	Alignment	not modelled	20.3	8	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
46	c3ktbD	Alignment	not modelled	19.9	20	PDB header: transcription regulator Chain: D: PDB Molecule: arsenical resistance operon trans-acting repressor; PDBTitle: crystal structure of arsenical resistance operon trans-acting2 repressor from bacteroides vulgatus atcc 8482
47	d2h7zb1	Alignment	not modelled	19.9	24	Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Snake venom toxins
48	c1q1kA	Alignment	not modelled	19.7	17	PDB header: transferase Chain: A: PDB Molecule: atp phosphoribosyltransferase; PDBTitle: structure of atp-phosphoribosyltransferase from e. coli complexed with2 pr-atp
49	d1cjba	Alignment	not modelled	19.3	27	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
50	d3bmva4	Alignment	not modelled	19.0	26	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
51	d1cxla4	Alignment	not modelled	18.4	25	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
52	d1pj3a2	Alignment	not modelled	18.2	30	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Malic enzyme N-domain
53	d1o98a1	Alignment	not modelled	18.1	20	Fold: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain Superfamily: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain Family: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, substrate-binding domain
54	c1zwuA	Alignment	not modelled	17.3	32	PDB header: antimicrobial protein Chain: A: PDB Molecule: amaranthus caudatus antimicrobial peptide 2 (acmp2);

						PDBTitle: 30 nmr structures of acamp2-like peptide with non natural beta-(2-2 naphthyl)-alanine residue.
55	c3dahB_	Alignment	not modelled	16.7	17	PDB header: transferase Chain: B: PDB Molecule: ribose-phosphate pyrophosphokinase; PDBTitle: 2.3 a crystal structure of ribose-phosphate pyrophosphokinase from2 burkholderia pseudomallei
56	d1whqa_	Alignment	not modelled	16.2	18	Fold: dsRBD-like Superfamily: dsRNA-binding domain-like Family: Double-stranded RNA-binding domain (dsRBD)
57	c1ldbA_	Alignment	not modelled	16.0	15	PDB header: oxidoreductase(choh(d)-nad(a)) Chain: A: PDB Molecule: apo-l-lactate dehydrogenase; PDBTitle: structure determination and refinement of bacillus2 stearothermophilus lactate dehydrogenase
58	c1dkrB_	Alignment	not modelled	15.9	21	PDB header: transferase Chain: B: PDB Molecule: phosphoribosyl pyrophosphate synthetase; PDBTitle: crystal structures of bacillus subtilis phosphoribosylpyrophosphate2 synthetase: molecular basis of allosteric inhibition and activation.
59	d1z7ga1	Alignment	not modelled	15.9	26	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
60	d2fpoa1	Alignment	not modelled	15.3	17	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: YhhF-like
61	c3outC_	Alignment	not modelled	14.9	18	PDB header: isomerase Chain: C: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of glutamate racemase from francisella tularensis2 subsp. tularensis schu s4 in complex with d-glutamate.
62	d1dgja4	Alignment	not modelled	14.9	16	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
63	c1hygA_	Alignment	not modelled	14.8	13	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate/malate dehydrogenase; PDBTitle: crystal structure of nj0490 gene product, the family of2 lactate/malate dehydrogenase
64	c2v4iA_	Alignment	not modelled	14.6	14	PDB header: transferase Chain: A: PDB Molecule: glutamate n-acetyltransferase 2 alpha chain; PDBTitle: structure of a novel n-acyl-enzyme intermediate of an n-2 terminal nucleophile (ntn) hydrolase, oat2
65	c2jq4A_	Alignment	not modelled	14.6	21	PDB header: structural genomics Chain: A: PDB Molecule: hypothetical protein atu2571; PDBTitle: complete resonance assignments and solution structure2 calculation of atc2521 (nesg id: att6) from agrobacterium3 tumefaciens
66	d2jq4a1	Alignment	not modelled	14.6	21	Fold: Acyl carrier protein-like Superfamily: ACP-like Family: Acyl-carrier protein (ACP)
67	d1u9ya2	Alignment	not modelled	14.5	17	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
68	d2f2ab2	Alignment	not modelled	14.4	16	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: GatB/GatE catalytic domain-like
69	c3dm5A_	Alignment	not modelled	14.3	13	PDB header: rna binding protein, transport protein Chain: A: PDB Molecule: signal recognition 54 kda protein; PDBTitle: structures of srp54 and srp19, the two proteins assembling2 the ribonucleic core of the signal recognition particle3 from the archaeon pyrococcus furiosus.
70	c1o98A_	Alignment	not modelled	14.2	17	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent PDBTitle: 1.4a crystal structure of phosphoglycerate mutase from2 bacillus stearothermophilus complexed with3 2-phosphoglycerate
71	d1ugpa_	Alignment	not modelled	14.1	23	Fold: Nitrile hydratase alpha chain Superfamily: Nitrile hydratase alpha chain Family: Nitrile hydratase alpha chain
72	d1o6za2	Alignment	not modelled	13.8	21	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
73	c2eoyA_	Alignment	not modelled	13.6	57	PDB header: transcription Chain: A: PDB Molecule: zinc finger protein 473; PDBTitle: solution structure of the c2h2 type zinc finger (region 557-2 589) of human zinc finger protein 473
74	c3omtA_	Alignment	not modelled	13.6	28	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: putative antitoxin component, chu_2935 protein, from xre family from2 prevotella buccae.
75	d1utxa_	Alignment	not modelled	13.2	28	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
76	c1u9yD_	Alignment	not modelled	13.0	17	PDB header: transferase Chain: D: PDB Molecule: ribose-phosphate pyrophosphokinase; PDBTitle: crystal structure of phosphoribosyl diphosphate synthase2 from methanocaldococcus jannaschii
77	c2j37W_	Alignment	not modelled	12.9	10	PDB header: ribosome Chain: W: PDB Molecule: signal recognition particle 54 kda protein PDBTitle: model of mammalian srp bound to 80s rncs
78	c2l9fA_	Alignment	not modelled	12.8	14	PDB header: transferase Chain: A: PDB Molecule: cale8; PDBTitle: nmr solution structure of meacp
79	c3p9xB_	Alignment	not modelled	12.6	15	PDB header: transferase Chain: B: PDB Molecule: phosphoribosylglycinamide formyltransferase;

						PDBTitle: crystal structure of phosphoribosylglycinamide formyltransferase from <i>Bacillus halodurans</i>
80	clex1A_	Alignment	not modelled	12.5	13	PDB header: hydrolase Chain: A; PDB Molecule: protein (beta-d-glucan exohydrolase isoenzyme exo1); PDBTitle: beta-d-glucan exohydrolase from barley
81	d1cyga4	Alignment	not modelled	12.5	23	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
82	d1lgya_	Alignment	not modelled	12.4	29	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Fungal lipases
83	d2d6fc3	Alignment	not modelled	12.3	30	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: GatB/GatE catalytic domain-like
84	d1lmb3_	Alignment	not modelled	12.1	28	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
85	d2nlva1	Alignment	not modelled	12.0	12	Fold: 7-stranded beta/alpha barrel Superfamily: Glycoside hydrolase/deacetylase Family: Divergent polysaccharide deacetylase
86	c3jruB_	Alignment	not modelled	12.0	15	PDB header: hydrolase Chain: B; PDB Molecule: probable cytosol aminopeptidase; PDBTitle: crystal structure of leucyl aminopeptidase (pepa) from <i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KCC10331
87	c1qr6A_	Alignment	not modelled	12.0	30	PDB header: oxidoreductase Chain: A; PDB Molecule: malic enzyme 2; PDBTitle: human mitochondrial nad(p)-dependent malic enzyme
88	c3bs3A_	Alignment	not modelled	11.9	28	PDB header: dna binding protein Chain: A; PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of a putative dna-binding protein from <i>Bacteroides2 fragilis</i>
89	c3t76A_	Alignment	not modelled	11.8	22	PDB header: transcription regulator Chain: A; PDB Molecule: transcriptional regulator vanug; PDBTitle: crystal structure of transcriptional regulator vanug, form ii
90	c3igzB_	Alignment	not modelled	11.7	10	PDB header: isomerase Chain: B; PDB Molecule: cofactor-independent phosphoglycerate mutase; PDBTitle: crystal structures of <i>Leishmania mexicana</i> phosphoglycerate2 mutase at low cobalt concentration
91	d1fsga_	Alignment	not modelled	11.5	23	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
92	c3fybA_	Alignment	not modelled	11.3	60	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: protein of unknown function (duf1244); PDBTitle: crystal structure of a protein of unknown function (duf1244) from <i>Alcanivorax borkumensis</i>
93	d1jsda_	Alignment	not modelled	11.1	5	Fold: Viral protein domain Superfamily: Viral protein domain Family: Influenza hemagglutinin headpiece
94	d1iuka_	Alignment	not modelled	11.1	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
95	c3al0B_	Alignment	not modelled	11.1	26	PDB header: ligase/rna Chain: B; PDB Molecule: aspartyl/glutamyl-trna(asn/gln) amidotransferase subunit b; PDBTitle: crystal structure of the glutamine transamidosome from <i>Thermotoga2 maritima</i> in the glutamylation state.
96	c1vraA_	Alignment	not modelled	10.9	16	PDB header: transferase Chain: A; PDB Molecule: arginine biosynthesis bifunctional protein argj; PDBTitle: crystal structure of arginine biosynthesis bifunctional protein argj2 (10175521) from <i>Bacillus halodurans</i> at 2.00 Å resolution
97	d1p17b_	Alignment	not modelled	10.9	18	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
98	d1f7ua3	Alignment	not modelled	10.8	14	Fold: RRF/tRNA synthetase additional domain-like Superfamily: Arginyl-tRNA synthetase (ArgRS), N-terminal 'additional' domain Family: Arginyl-tRNA synthetase (ArgRS), N-terminal 'additional' domain
99	c2c4kD_	Alignment	not modelled	10.8	21	PDB header: regulatory protein Chain: D; PDB Molecule: phosphoribosyl pyrophosphate synthetase- PDBTitle: crystal structure of human phosphoribosylpyrophosphate2 synthetase-associated protein 39 (pap39)