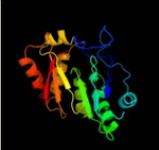
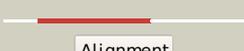
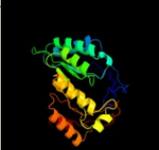


Phyre2

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Description	P76134
Date	Thu Jan 5 12:19:23 GMT 2012
Unique Job ID	12c84bdfa13d7a73

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1tv8a_	 Alignment		100.0	17	Fold: TIM beta/alpha-barrel Superfamily: Radical SAM enzymes Family: MoCo biosynthesis proteins
2	c2yx0A_	 Alignment		99.9	13	PDB header: metal binding protein Chain: A: PDB Molecule: radical sam enzyme; PDBTitle: crystal structure of p. horikoshii tyw1
3	c3c8fA_	 Alignment		99.8	15	PDB header: oxidoreductase Chain: A: PDB Molecule: pyruvate formate-lyase 1-activating enzyme; PDBTitle: 4fe-4s-pyruvate formate-lyase activating enzyme with2 partially disordered adomet
4	c2a5hC_	 Alignment		99.6	15	PDB header: isomerase Chain: C: PDB Molecule: l-lysine 2,3-aminomutase; PDBTitle: 2.1 angstrom x-ray crystal structure of lysine-2,3-aminomutase from2 clostridium subterminale sb4, with michaelis analog (l-alpha-lysine3 external aldimine form of pyridoxal-5'-phosphate).
5	d1o1ta_	 Alignment		99.6	10	Fold: TIM beta/alpha-barrel Superfamily: Radical SAM enzymes Family: Oxygen-independent coproporphyrinogen III oxidase HemN
6	c1r30A_	 Alignment		99.6	11	PDB header: transferase Chain: A: PDB Molecule: biotin synthase; PDBTitle: the crystal structure of biotin synthase, an s-2 adenosylmethionine-dependent radical enzyme
7	d1r30a_	 Alignment		99.6	11	Fold: TIM beta/alpha-barrel Superfamily: Radical SAM enzymes Family: Biotin synthase
8	c3t7vA_	 Alignment		99.5	13	PDB header: transferase Chain: A: PDB Molecule: methylornithine synthase pylb; PDBTitle: crystal structure of methylornithine synthase (pylb)
9	c3cixA_	 Alignment		99.5	12	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
10	c2z2uA_	 Alignment		99.5	20	PDB header: metal binding protein Chain: A: PDB Molecule: upf0026 protein mj0257; PDBTitle: crystal structure of archaeal tyw1
11	c3canA_	 Alignment		99.5	15	PDB header: lyase activator Chain: A: PDB Molecule: pyruvate-formate lyase-activating enzyme; PDBTitle: crystal structure of a domain of pyruvate-formate lyase-activating2 enzyme from bacteroides vulgatus atcc 8482

12	c3rfaA_	Alignment		99.4	16	PDB header: oxidoreductase Chain: A: PDB Molecule: ribosomal rna large subunit methyltransferase n; PDBTitle: x-ray structure of rlmn from escherichia coli in complex with s-2 adenosylmethionine
13	c2qgqF_	Alignment		98.9	9	PDB header: structural genomics, unknown function Chain: F: PDB Molecule: protein tm_1862; PDBTitle: crystal structure of tm_1862 from thermotoga maritima.2 northeast structural genomics consortium target vr77
14	c3ivuB_	Alignment		97.2	12	PDB header: transferase Chain: B: PDB Molecule: homocitrate synthase, mitochondrial; PDBTitle: homocitrate synthase lys4 bound to 2-og
15	c3bleA_	Alignment		96.9	11	PDB header: transferase Chain: A: PDB Molecule: citramalate synthase from leptospira interrogans; PDBTitle: crystal structure of the catalytic domain of licms in2 complexed with malonate
16	c3ewbX_	Alignment		96.9	11	PDB header: transferase Chain: X: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of n-terminal domain of putative 2-2 isopropylmalate synthase from listeria monocytogenes
17	c2ftpA_	Alignment		96.8	10	PDB header: lyase Chain: A: PDB Molecule: hydroxymethylglutaryl-coa lyase; PDBTitle: crystal structure of hydroxymethylglutaryl-coa lyase from pseudomonas2 aeruginosa
18	c2cw6B_	Alignment		95.9	11	PDB header: lyase Chain: B: PDB Molecule: hydroxymethylglutaryl-coa lyase, mitochondrial; PDBTitle: crystal structure of human hmg-coa lyase: insights into2 catalysis and the molecular basis for3 hydroxymethylglutaric aciduria
19	c1ydoC_	Alignment		95.8	12	PDB header: lyase Chain: C: PDB Molecule: hmg-coa lyase; PDBTitle: crystal structure of the bacillis subtilis hmg-coa lyase, northeast2 structural genomics target sr181.
20	c1ydnA_	Alignment		95.4	7	PDB header: lyase Chain: A: PDB Molecule: hydroxymethylglutaryl-coa lyase; PDBTitle: crystal structure of the hmg-coa lyase from brucella melitensis,2 northeast structural genomics target lr35.
21	c3eegB_	Alignment	not modelled	93.7	8	PDB header: transferase Chain: B: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of a 2-isopropylmalate synthase from2 cytophaga hutchinsonii
22	c1nvmG_	Alignment	not modelled	85.9	8	PDB header: lyase/oxidoreductase Chain: G: PDB Molecule: 4-hydroxy-2-oxovalerate aldolase; PDBTitle: crystal structure of a bifunctional aldolase-dehydrogenase :2 sequestering a reactive and volatile intermediate
23	c1sr9A_	Alignment	not modelled	84.6	9	PDB header: transferase Chain: A: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of leua from mycobacterium tuberculosis
24	c2qv5A_	Alignment	not modelled	72.7	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu2773; PDBTitle: crystal structure of uncharacterized protein atu2773 from2 agrobacterium tumefaciens c58
25	d1nvm2	Alignment	not modelled	70.9	9	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: HMGL-like
26	c1rr2A_	Alignment	not modelled	70.7	14	PDB header: transferase Chain: A: PDB Molecule: transcarboxylase 5s subunit; PDBTitle: propionibacterium shermanii transcarboxylase 5s subunit bound to 2-2 ketobutyric acid
27	c2zyfA_	Alignment	not modelled	69.1	11	PDB header: transferase Chain: A: PDB Molecule: homocitrate synthase; PDBTitle: crystal structure of homocitrate synthase from thermus thermophilus2 complexed with magnesuim ion and alpha-ketoglutarate
28	c3dxiB_	Alignment	not modelled	65.9	9	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative aldolase; PDBTitle: crystal structure of the n-terminal domain of a putative2 aldolase (bvu_2661) from bacteroides vulgatus
						PDB header: transferase

29	c2vefB_	Alignment	not modelled	59.6	9	Chain: B: PDB Molecule: dihydropteroate synthase; PDBTitle: dihydropteroate synthase from streptococcus pneumoniae
30	c2nx9B_	Alignment	not modelled	57.2	12	PDB header: lyase Chain: B: PDB Molecule: oxaloacetate decarboxylase 2, subunit alpha; PDBTitle: crystal structure of the carboxyltransferase domain of the 2 oxaloacetate decarboxylase na+ pump from vibrio cholerae
31	d2nlva1	Alignment	not modelled	55.1	9	Fold: 7-stranded beta/alpha barrel Superfamily: Glycoside hydrolase/deacetylase Family: Divergent polysaccharide deacetylase
32	c3iwpK_	Alignment	not modelled	54.9	11	PDB header: metal binding protein Chain: K: PDB Molecule: copper homeostasis protein cutc homolog; PDBTitle: crystal structure of human copper homeostasis protein cutc
33	c2zq0B_	Alignment	not modelled	54.3	11	PDB header: hydrolase Chain: B: PDB Molecule: alpha-glucosidase (alpha-glucosidase sub); PDBTitle: crystal structure of sub complexed with acarbose
34	c2bdqA_	Alignment	not modelled	54.2	11	PDB header: metal transport Chain: A: PDB Molecule: copper homeostasis protein cutc; PDBTitle: crystal structure of the putative copper homeostasis2 protein cutc from streptococcus agalactiae, northeast3 structural genomics target sar15.
35	d1muwa_	Alignment	not modelled	53.7	8	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
36	c3hpxB_	Alignment	not modelled	52.5	9	PDB header: transferase Chain: B: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of mycobacterium tuberculosis leua active site2 domain 1-425 (truncation mutant delta:426-644)
37	d1ajza_	Alignment	not modelled	51.5	13	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
38	c3czkA_	Alignment	not modelled	50.3	8	PDB header: hydrolase Chain: A: PDB Molecule: sucrose hydrolase; PDBTitle: crystal structure analysis of sucrose hydrolase(suh) e322q-2 sucrose complex
39	d1tx2a_	Alignment	not modelled	50.1	15	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
40	c1tx2A_	Alignment	not modelled	50.1	15	PDB header: transferase Chain: A: PDB Molecule: dhps, dihydropteroate synthase; PDBTitle: dihydropteroate synthetase, with bound inhibitor manic, from bacillus2 anthracis
41	d1g5aa2	Alignment	not modelled	49.8	8	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
42	c3bg3B_	Alignment	not modelled	47.8	14	PDB header: ligase Chain: B: PDB Molecule: pyruvate carboxylase, mitochondrial; PDBTitle: crystal structure of human pyruvate carboxylase (missing2 the biotin carboxylase domain at the n-terminus)
43	d2zdra2	Alignment	not modelled	47.6	15	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: NeuB-like
44	c1jgiA_	Alignment	not modelled	47.5	8	PDB header: transferase Chain: A: PDB Molecule: amylosucrase; PDBTitle: crystal structure of the active site mutant glu328ln of2 amylosucrase from neisseria polysaccharea in complex with3 the natural substrate sucrose
45	c3n2xB_	Alignment	not modelled	46.8	13	PDB header: lyase Chain: B: PDB Molecule: uncharacterized protein yage; PDBTitle: crystal structure of yage, a prophage protein belonging to the2 dihydrodipicolinic acid synthase family from e. coli k12 in complex3 with pyruvate
46	c3ol0C_	Alignment	not modelled	45.0	14	PDB header: de novo protein Chain: C: PDB Molecule: de novo designed monomer trefoil-fold sub-domain which PDBTitle: crystal structure of monofold-4p homo-trimer: de novo designed monomer2 trefoil-fold sub-domain which forms homo-trimer assembly
47	c2knpA_	Alignment	not modelled	44.9	43	PDB header: unknown function Chain: A: PDB Molecule: mcocc-1; PDBTitle: isolation and characterization of peptides from momordica2 cochinchinensis seeds.
48	d1twda_	Alignment	not modelled	44.3	10	Fold: TIM beta/alpha-barrel Superfamily: CutC-like Family: CutC-like
49	d1yhta1	Alignment	not modelled	40.9	15	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
50	c3dz1A_	Alignment	not modelled	39.1	11	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 rhodospseudomonas palustris at 1.87a resolution
51	c3chvA_	Alignment	not modelled	36.8	13	PDB header: metal binding protein Chain: A: PDB Molecule: prokaryotic domain of unknown function (duf849) with a tim PDBTitle: crystal structure of a prokaryotic domain of unknown function (duf849)2 member (spo0042) from silicibacter pomeroyi dss-3 at 1.45 a3 resolution
52	c2gjxE_	Alignment	not modelled	35.3	9	PDB header: hydrolase Chain: E: PDB Molecule: beta-hexosaminidase alpha chain; PDBTitle: crystallographic structure of human beta-hexosaminidase a PDB header: lyase

53	c2ekcA	Alignment	not modelled	33.8	11	Chain: A: PDB Molecule: tryptophan synthase alpha chain; PDBTitle: structural study of project id aq_1548 from aquifex aeolicus vf5
54	c3hf3A	Alignment	not modelled	33.7	20	PDB header: oxidoreductase Chain: A: PDB Molecule: chromate reductase; PDBTitle: old yellow enzyme from thermus scotoductus sa-01
55	c3lciA	Alignment	not modelled	31.1	15	PDB header: lyase Chain: A: PDB Molecule: n-acetylneuraminate lyase; PDBTitle: the d-sialic acid aldolase mutant v251w
56	d1qwga	Alignment	not modelled	30.5	14	Fold: TIM beta/alpha-barrel Superfamily: (2r)-phospho-3-sulfolactate synthase ComA Family: (2r)-phospho-3-sulfolactate synthase ComA
57	c3cprB	Alignment	not modelled	29.9	11	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthetase; PDBTitle: the crystal structure of corynebacterium glutamicum2 dihydrodipicolinate synthase to 2.2 a resolution
58	d1qt1a	Alignment	not modelled	29.8	9	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
59	c2v9dB	Alignment	not modelled	26.9	13	PDB header: lyase Chain: B: PDB Molecule: yage; PDBTitle: crystal structure of yage, a prophage protein belonging to2 the dihydrodipicolinic acid synthase family from e. coli3 k12
60	c3navB	Alignment	not modelled	26.5	11	PDB header: lyase Chain: B: PDB Molecule: tryptophan synthase alpha chain; PDBTitle: crystal structure of an alpha subunit of tryptophan synthase from2 vibrio cholerae o1 biovar el tor str. n16961
61	d2a6na1	Alignment	not modelled	26.2	11	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
62	d1v93a	Alignment	not modelled	25.5	15	Fold: TIM beta/alpha-barrel Superfamily: FAD-linked oxidoreductase Family: Methylenetetrahydrofolate reductase
63	c1ps9A	Alignment	not modelled	25.3	12	PDB header: oxidoreductase Chain: A: PDB Molecule: 2,4-dienoyl-coa reductase; PDBTitle: the crystal structure and reaction mechanism of e. coli 2,4-2 dienoyl coa reductase
64	c3rpmA	Alignment	not modelled	25.2	14	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetyl-hexosaminidase; PDBTitle: crystal structure of the first gh20 domain of a novel beta-n-acetyl-2 hexosaminidase strh from streptococcus pneumoniae r6
65	c3e02A	Alignment	not modelled	25.2	11	PDB header: metal binding protein Chain: A: PDB Molecule: uncharacterized protein duf849; PDBTitle: crystal structure of a duf849 family protein (bx_e_c0271) from2 burkholderia xenovorans lb400 at 1.90 a resolution
66	d1hl2a	Alignment	not modelled	25.1	15	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
67	d1ad1a	Alignment	not modelled	25.1	9	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
68	c1nouA	Alignment	not modelled	25.0	12	PDB header: hydrolase Chain: A: PDB Molecule: beta-hexosaminidase beta chain; PDBTitle: native human lysosomal beta-hexosaminidase isoform b
69	d1m53a2	Alignment	not modelled	24.3	10	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
70	c1qysA	Alignment	not modelled	24.2	13	PDB header: de novo protein Chain: A: PDB Molecule: top7; PDBTitle: crystal structure of top7: a computationally designed2 protein with a novel fold
71	c2ylaA	Alignment	not modelled	24.1	12	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetylhexosaminidase; PDBTitle: inhibition of the pneumococcal virulence factor strh and2 molecular insights into n-glycan recognition and3 hydrolysis
72	c2g7zB	Alignment	not modelled	23.8	5	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: conserved hypothetical protein spy1493; PDBTitle: conserved degv-like protein of unknown function from streptococcus2 pyogenes m1 gas binds long-chain fatty acids
73	c3khdC	Alignment	not modelled	23.6	7	PDB header: transferase Chain: C: PDB Molecule: pyruvate kinase; PDBTitle: crystal structure of pff1300w.
74	d1nowa1	Alignment	not modelled	22.1	13	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
75	d1z41a1	Alignment	not modelled	22.1	11	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
76	c2ou4C	Alignment	not modelled	21.1	9	PDB header: isomerase Chain: C: PDB Molecule: d-tagatose 3-epimerase; PDBTitle: crystal structure of d-tagatose 3-epimerase from2 pseudomonas cichorii
77	c3b4uB	Alignment	not modelled	20.6	11	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from agrobacterium2 tumefaciens str. c58
78	c2qmaB	Alignment	not modelled	20.4	18	PDB header: transferase Chain: B: PDB Molecule: diaminobutyrate-pyruvate transaminase and l-2,4- PDBTitle: crystal structure of glutamate decarboxylase domain of2 diaminobutyrate-pyruvate transaminase and l-2,4-diaminobutyrate3 decarboxylase from vibrio parahaemolyticus
79	c3g0cA	Alignment	not modelled	20.1	13	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase;

79	c3gusA	Alignment	not modelled	20.1	13	PDBTitle: dihydrodipicolinate synthase from salmonella typhimurium lt2 PDB header: lyase
80	c3fluD	Alignment	not modelled	20.0	10	Chain: D: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from the pathogen2 neisseria meningitidis
81	d1uwva2	Alignment	not modelled	19.9	45	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: (Uracil-5-)-methyltransferase
82	d1eyea	Alignment	not modelled	19.8	17	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
83	c3pueA	Alignment	not modelled	19.7	15	PDB header: lyase Chain: A: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of the complex of dihydrodipicolinate synthase from2 acinetobacter baumannii with lysine at 2.6a resolution
84	c2jvfA	Alignment	not modelled	19.6	17	PDB header: de novo protein Chain: A: PDB Molecule: de novo protein m7; PDBTitle: solution structure of m7, a computationally-designed2 artificial protein
85	c3qfeB	Alignment	not modelled	19.6	8	PDB header: lyase Chain: B: PDB Molecule: putative dihydrodipicolinate synthase family protein; PDBTitle: crystal structures of a putative dihydrodipicolinate synthase family2 protein from coccidioides immitis
86	c3lmyA	Alignment	not modelled	19.3	8	PDB header: hydrolase Chain: A: PDB Molecule: beta-hexosaminidase subunit beta; PDBTitle: the crystal structure of beta-hexosaminidase b in complex with2 pyrimethamine
87	c1xuzA	Alignment	not modelled	19.0	16	PDB header: biosynthetic protein Chain: A: PDB Molecule: polysialic acid capsule biosynthesis protein siac; PDBTitle: crystal structure analysis of sialic acid synthase (neub)from2 neisseria meningitidis, bound to mn2+, phosphoenolpyruvate, and n-3 acetyl mannosaminitol
88	c2dh3A	Alignment	not modelled	18.6	21	PDB header: transport protein, signaling protein Chain: A: PDB Molecule: 4f2 cell-surface antigen heavy chain; PDBTitle: crystal structure of human ed-4f2hc
89	c3ogfA	Alignment	not modelled	18.3	10	PDB header: de novo protein Chain: A: PDB Molecule: de novo designed dimeric trefoil-fold sub-domain which PDBTitle: crystal structure of difoil-4p homo-trimer: de novo designed dimeric2 trefoil-fold sub-domain which forms homo-trimer assembly
90	c3ct7E	Alignment	not modelled	17.5	11	PDB header: isomerase Chain: E: PDB Molecule: d-allulose-6-phosphate 3-epimerase; PDBTitle: crystal structure of d-allulose 6-phosphate 3-epimerase2 from escherichia coli k-12
91	c3lppA	Alignment	not modelled	16.7	14	PDB header: hydrolase Chain: A: PDB Molecule: sucrase-isomaltase; PDBTitle: crystal complex of n-terminal sucrase-isomaltase with kotalanol
92	c3rcnA	Alignment	not modelled	16.7	13	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetylhexosaminidase; PDBTitle: crystal structure of beta-n-acetylhexosaminidase from arthrobacter2 aureus
93	c3no5C	Alignment	not modelled	16.4	15	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a pfam duf849 domain containing protein2 (reut_a1631) from ralstonia eutropha jmp134 at 1.90 a resolution
94	c1uwvA	Alignment	not modelled	16.0	50	PDB header: transferase Chain: A: PDB Molecule: 23s rrna (uracil-5-)-methyltransferase ruma; PDBTitle: crystal structure of ruma, the iron-sulfur cluster2 containing e. coli 23s ribosomal rna 5-methyluridine3 methyltransferase
95	d1qbaa3	Alignment	not modelled	15.6	23	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
96	c2ehhE	Alignment	not modelled	15.6	16	PDB header: lyase Chain: E: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 aquifex aeolicus
97	d1o5ka	Alignment	not modelled	15.5	10	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
98	c3dagB	Alignment	not modelled	15.4	9	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from methicillin-2 resistant staphylococcus aureus
99	c2rfgB	Alignment	not modelled	15.3	9	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from hahella2 chejuensis at 1.5a resolution