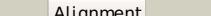
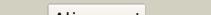
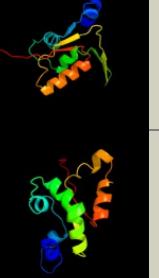
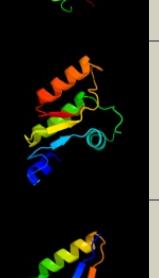
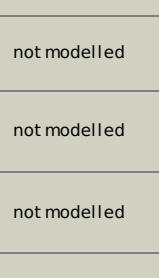
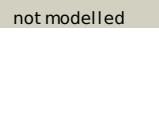


Phyre²

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Description	P77555
Date	Thu Jan 5 12:30:32 GMT 2012
Unique Job ID	dca6904e95192599

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1xrha_			100.0	96	Fold: L-sulfolactate dehydrogenase-like Superfamily: L-sulfolactate dehydrogenase-like Family: L-sulfolactate dehydrogenase-like
2	c1vbia_			100.0	36	PDB header: oxidoreductase Chain: A: PDB Molecule: type 2 malate/lactate dehydrogenase; PDBTitle: crystal structure of type 2 malate/lactate dehydrogenase from thermus2 thermophilus hb8
3	c1z2iA_			100.0	27	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of agrobacterium tumefaciens malate2 dehydrogenase, new york structural genomics consortium
4	c3i0pA_			100.0	27	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of malate dehydrogenase from entamoeba histolytica
5	c2g8yB_			100.0	28	PDB header: oxidoreductase Chain: B: PDB Molecule: malate/l-lactate dehydrogenases; PDBTitle: the structure of a putative malate/lactate dehydrogenase from e. coli.
6	d1rfma_			100.0	34	Fold: L-sulfolactate dehydrogenase-like Superfamily: L-sulfolactate dehydrogenase-like Family: L-sulfolactate dehydrogenase-like
7	c1wtjB_			100.0	30	PDB header: oxidoreductase Chain: B: PDB Molecule: ureidoglycolate dehydrogenase; PDBTitle: crystal structure of delta1-piperideine-2-carboxylate2 reductase from pseudomonas syringae pvar.tomato
8	d1nxua_			100.0	22	Fold: L-sulfolactate dehydrogenase-like Superfamily: L-sulfolactate dehydrogenase-like Family: L-sulfolactate dehydrogenase-like
9	c3uoeb_			100.0	30	PDB header: oxidoreductase Chain: B: PDB Molecule: dehydrogenase; PDBTitle: the crystal structure of dehydrogenase from sinorhizobium meliloti
10	c1v9nA_			100.0	34	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: structure of malate dehydrogenase from pyrococcus horikoshii ot3
11	d2ebfx2			54.3	18	Fold: Era/ChaN-like Superfamily: Era/ChaN-like Family: PMT domain-like

12	c3b8iF	Alignment		50.4	13	PDB header: lyase Chain: F; PDB Molecule: pa4872 oxaloacetate decarboxylase; PDBTitle: crystal structure of oxaloacetate decarboxylase from pseudomonas2 aeruginosa (pa4872) in complex with oxalate and mg ²⁺ .
13	c2qiwA	Alignment		46.3	13	PDB header: transferase Chain: A; PDB Molecule: pep phosphonomutase; PDBTitle: crystal structure of a putative phosphoenolpyruvate phosphonomutase2 (ncgl1015, cgl1060) from corynebacterium glutamicum atcc 13032 at 3.1.80 a resolution
14	d1muma	Alignment		45.7	22	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate mutase/Isocitrate lyase-like
15	c2ze3A	Alignment		41.8	13	PDB header: isomerase Chain: A; PDB Molecule: dfa0005; PDBTitle: crystal structure of dfa0005 complexed with alpha-ketoglutarate: a2 novel member of the icl/pepm superfamily from alkali-tolerant3 deinococcus fusicus
16	c2hjpA	Alignment		40.4	13	PDB header: hydrolase Chain: A; PDB Molecule: phosphonopyruvate hydrolase; PDBTitle: crystal structure of phosphonopyruvate hydrolase complex with2 phosphonopyruvate and mg ⁺⁺
17	c3irvA	Alignment		40.2	7	PDB header: hydrolase Chain: A; PDB Molecule: cysteine hydrolase; PDBTitle: crystal structure of cysteine hydrolase pspph_2384 from pseudomonas2 syringae pv. phaseolicola 1448a
18	c3ih1A	Alignment		40.1	19	PDB header: lyase Chain: A; PDB Molecule: methylisocitrate lyase; PDBTitle: crystal structure of carboxyvinyl-carboxyphosphonate phosphorylmutase2 from bacillus anthracis
19	c3eefA	Alignment		39.7	18	PDB header: hydrolase Chain: A; PDB Molecule: n-carbamoylsarcosine amidase related protein; PDBTitle: crystal structure of n-carbamoylsarcosine amidase from thermoplasma2 acidophilum
20	c3kl2K	Alignment		35.9	16	PDB header: structural genomics, unknown function Chain: K; PDB Molecule: putative isochorismatase; PDBTitle: crystal structure of a putative isochorismatase from streptomyces2 avermitilis
21	c3eo0L	Alignment	not modelled	31.1	17	PDB header: lyase Chain: L; PDB Molecule: methylisocitrate lyase; PDBTitle: 2.9a crystal structure of methyl-isocitrate lyase from burkholderia pseudomallei
22	d1nf9a	Alignment	not modelled	29.2	7	Fold: isochorismatase-like hydrolases Superfamily: isochorismatase-like hydrolases Family: Isochorismatase-like hydrolases
23	c3ot4F	Alignment	not modelled	29.0	22	PDB header: hydrolase Chain: F; PDB Molecule: putative isochorismatase; PDBTitle: structure and catalytic mechanism of bordetella bronchiseptica ncifc
24	c3fa4D	Alignment	not modelled	27.4	18	PDB header: lyase Chain: D; PDB Molecule: 2,3-dimethylmalate lyase; PDBTitle: crystal structure of 2,3-dimethylmalate lyase, a pep mutase/isocitrate2 lyase superfamily member, triclinic crystal form
25	c2b34C	Alignment	not modelled	27.3	10	PDB header: hydrolase Chain: C; PDB Molecule: mar1 ribonuclease; PDBTitle: structure of mar1 ribonuclease from caenorhabditis elegans
26	d1nbaa	Alignment	not modelled	26.6	18	Fold: Isochorismatase-like hydrolases Superfamily: Isochorismatase-like hydrolases Family: Isochorismatase-like hydrolases
27	c1zlpA	Alignment	not modelled	26.5	21	PDB header: lyase Chain: A; PDB Molecule: petal death protein; PDBTitle: petal death protein psr132 with cysteine-linked glutaraldehyde forming a thiohemiacetal adduct
28	c1e0mA	Alignment	not modelled	25.7	29	PDB header: de novo protein Chain: A; PDB Molecule: wwprototype; PDBTitle: prototype ww domain
29	c1yiua	Alignment	not modelled	25.1	36	PDB header: ligase Chain: A; PDB Molecule: itchy e3 ubiquitin protein ligase;

						PDBTitle: itch e3 ubiquitin ligase ww3 domain
30	c2uygF	Alignment	not modelled	25.0	21	PDB header: lyase Chain: F: PDB Molecule: 3-dehydroquinate dehydratase; PDBTitle: crystallographic structure of the typeII 3-dehydroquinate2 from thermus thermophilus
31	c3I4hA	Alignment	not modelled	24.0	17	PDB header: protein binding Chain: A: PDB Molecule: e3 ubiquitin-protein ligase hecwl; PDBTitle: helical box domain and second ww domain of the human e3 ubiquitin-2 protein ligase hecwl
32	c3bzrA	Alignment	not modelled	23.9	18	PDB header: membrane protein, protein transport Chain: A: PDB Molecule: escu; PDBTitle: crystal structure of escu c-terminal domain with n262d mutation, space2 group p 41 21 2
33	d3bzra1	Alignment	not modelled	23.9	18	Fold: EscU C-terminal domain-like Superfamily: EscU C-terminal domain-like Family: EscU C-terminal domain-like
34	d1vp8a	Alignment	not modelled	23.1	13	Fold: Pyruvate kinase C-terminal domain-like Superfamily: PK C-terminal domain-like Family: MTH1675-like
35	c1bmxA	Alignment	not modelled	22.8	22	PDB header: viral protein Chain: A: PDB Molecule: human immunodeficiency virus type 1 capsid; PDBTitle: hiv-1 capsid protein major homology region peptide analog,2 nmr, 8 structures
36	c2ysbA	Alignment	not modelled	22.7	18	PDB header: protein binding Chain: A: PDB Molecule: salvador homolog 1 protein; PDBTitle: solution structure of the first ww domain from the mouse2 salvador homolog 1 protein (sav1)
37	c3t7yB	Alignment	not modelled	22.4	20	PDB header: protein transport Chain: B: PDB Molecule: yop proteins translocation protein u; PDBTitle: structure of an autocleavage-inactive mutant of the cytoplasmic domain2 of ct091, the yscu homologue of chlamydia trachomatis
38	d1bdga1	Alignment	not modelled	22.2	13	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Hexokinase
39	c1ymzA	Alignment	not modelled	22.1	29	PDB header: unknown function Chain: A: PDB Molecule: cc45; PDBTitle: cc45, an artificial ww domain designed using statistical2 coupling analysis
40	c2ysdA	Alignment	not modelled	21.6	33	PDB header: protein binding Chain: A: PDB Molecule: membrane-associated guanylate kinase, ww and pdz PDBTitle: solution structure of the first ww domain from the human2 membrane-associated guanylate kinase, ww and pdz domain-3 containing protein 1. magi-1
41	c3hb7G	Alignment	not modelled	21.1	7	PDB header: hydrolase Chain: G: PDB Molecule: isochorismatase hydrolase; PDBTitle: the crystal structure of an isochorismatase-like hydrolase from2 alkaliphilus metallireducens to 2.3a
42	d1f8ab1	Alignment	not modelled	20.3	20	Fold: WW domain-like Superfamily: WW domain Family: WW domain
43	c2jlhA	Alignment	not modelled	20.2	23	PDB header: protein transport Chain: A: PDB Molecule: yop proteins translocation protein u; PDBTitle: crystal structure of the cytoplasmic domain of yersinia2 pestis yscu n263a mutant
44	c1wr7A	Alignment	not modelled	19.8	33	PDB header: ligase Chain: A: PDB Molecule: nedd4-2; PDBTitle: solution structure of the third ww domain of nedd4-2
45	d2csua3	Alignment	not modelled	19.8	11	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
46	d1yaca	Alignment	not modelled	19.7	9	Fold: Isochorismatase-like hydrolases Superfamily: Isochorismatase-like hydrolases Family: Isochorismatase-like hydrolases
47	d1ujqa	Alignment	not modelled	19.5	18	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenol pyruvate/pyruvate domain Family: Phosphoenol pyruvate mutase/isocitrate lyase-like
48	d1t57a	Alignment	not modelled	19.4	16	Fold: Pyruvate kinase C-terminal domain-like Superfamily: PK C-terminal domain-like Family: MTH1675-like
49	c2hg2A	Alignment	not modelled	19.4	14	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde dehydrogenase a; PDBTitle: structure of lactaldehyde dehydrogenase
50	d1k9ra	Alignment	not modelled	18.9	27	Fold: WW domain-like Superfamily: WW domain Family: WW domain
51	c2djyA	Alignment	not modelled	18.9	21	PDB header: ligase/signaling protein Chain: A: PDB Molecule: smad ubiquitination regulatory factor 2; PDBTitle: solution structure of smurf2 ww3 domain-smad7 py peptide2 complex
52	c2lawA	Alignment	not modelled	18.5	36	PDB header: signaling protein/transcription Chain: A: PDB Molecule: yorkie homolog; PDBTitle: structure of the second ww domain from human yap in complex with a2 human smad1 derived peptide
53	c3mcwA	Alignment	not modelled	17.7	11	PDB header: hydrolase Chain: A: PDB Molecule: putative hydrolase; PDBTitle: crystal structure of an a putative hydrolase of the isochorismatase2 family (cv_1320) from chromobacterium violaceum atc 12472 at 1.06 a3 resolution
54	c1wmvA	Alignment	not modelled	17.6	28	PDB header: oxidoreductase, apoptosis Chain: A: PDB Molecule: ww domain containing oxidoreductase; PDBTitle: solution structure of the second ww domain of wwox

55	c1wr4A	Alignment	not modelled	17.5	29	PDB header: ligase Chain: A: PDB Molecule: ubiquitin-protein ligase nedd4-2; PDBTitle: solution structure of the second ww domain of nedd4-2
56	d1tk7a1	Alignment	not modelled	17.2	21	Fold: WW domain-like Superfamily: WW domain Family: WW domain
57	d1j2ra	Alignment	not modelled	17.2	10	Fold: Isochorismatase-like hydrolases Superfamily: Isochorismatase-like hydrolases Family: Isochorismatase-like hydrolases
58	c3gveB	Alignment	not modelled	17.0	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: yfkn protein; PDBTitle: crystal structure of calcineurin-like phosphoesterase yfkn from 2 bacillus subtilis
59	d2cfua2	Alignment	not modelled	16.8	12	Fold: Metallo-hydrolase/oxidoreductase Superfamily: Metallo-hydrolase/oxidoreductase Family: Alkylsulfatase-like
60	c2kykA	Alignment	not modelled	16.5	36	PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase itchy homolog; PDBTitle: the sandwich region between two Imp2a py motif regulates the2 interaction between aip4ww2domain and py motif
61	d1a4sa	Alignment	not modelled	16.1	19	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
62	c2jmfa	Alignment	not modelled	16.0	20	PDB header: ligase/signaling protein Chain: A: PDB Molecule: e3 ubiquitin-protein ligase suppressor of deltex; PDBTitle: solution structure of the su(dx) ww4- notch py peptide2 complex
63	d2jmfa1	Alignment	not modelled	14.9	21	Fold: WW domain-like Superfamily: WW domain Family: WW domain
64	d1i5hw	Alignment	not modelled	14.5	20	Fold: WW domain-like Superfamily: WW domain Family: WW domain
65	d3djba1	Alignment	not modelled	14.4	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
66	c2ez5W	Alignment	not modelled	14.0	33	PDB header: signalling protein,ligase Chain: W: PDB Molecule: e3 ubiquitin-protein ligase nedd4; PDBTitle: solution structure of the dnedd4 ww3* domain- comm lpsy2 peptide complex
67	d3ci0k2	Alignment	not modelled	14.0	19	Fold: SAM domain-like Superfamily: GspK insert domain-like Family: GspK insert domain-like
68	c2fq1A	Alignment	not modelled	13.9	7	PDB header: hydrolase Chain: A: PDB Molecule: isochorismatase; PDBTitle: crystal structure of the two-domain non-ribosomal peptide synthetase2 entb containing isochorismate lyase and aryl-carrier protein domains
69	c2h0rD	Alignment	not modelled	13.8	7	PDB header: hydrolase Chain: D: PDB Molecule: nicotinamidase; PDBTitle: structure of the yeast nicotinamidase pnc1p
70	d1wifa	Alignment	not modelled	13.4	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: N-terminal Zn binding domain of HIV integrase Family: N-terminal Zn binding domain of HIV integrase
71	c2yshA	Alignment	not modelled	13.4	20	PDB header: protein binding Chain: A: PDB Molecule: growth-arrest-specific protein 7; PDBTitle: solution structure of the ww domain from the human growth-2 arrest-specific protein 7, gas-7
72	c2nu9E	Alignment	not modelled	13.0	18	PDB header: ligase Chain: E: PDB Molecule: succinyl-coa synthetase beta chain; PDBTitle: c123at mutant of e. coli succinyl-coa synthetase2 orthorhombic crystal form
73	c3oqpA	Alignment	not modelled	12.9	15	PDB header: hydrolase Chain: A: PDB Molecule: putative isochorismatase; PDBTitle: crystal structure of a putative isochorismatase (bxe_a0706) from2 burkholderia xenovorans lb400 at 1.22 a resolution
74	c2k29A	Alignment	not modelled	12.7	19	PDB header: transcription Chain: A: PDB Molecule: antitoxin relB; PDBTitle: structure of the dbd domain of e. coli antitoxin relB
75	d1sgma2	Alignment	not modelled	12.4	16	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
76	c3jz4C	Alignment	not modelled	12.0	18	PDB header: oxidoreductase Chain: C: PDB Molecule: succinate-semialdehyde dehydrogenase [nadp+]; PDBTitle: crystal structure of e. coli nadp dependent enzyme
77	c2pmzF	Alignment	not modelled	11.5	23	PDB header: translation, transferase Chain: F: PDB Molecule: da-directed rna polymerase subunit f; PDBTitle: archaeal rna polymerase from sulfolobus solfataricus
78	c3ifgH	Alignment	not modelled	11.3	19	PDB header: oxidoreductase Chain: H: PDB Molecule: succinate-semialdehyde dehydrogenase (nadp+); PDBTitle: crystal structure of succinate-semialdehyde dehydrogenase from2 burkholderia pseudomallei, part 1 of 2
79	c3k2wD	Alignment	not modelled	11.2	15	PDB header: oxidoreductase Chain: D: PDB Molecule: betaaine-aldehyde dehydrogenase; PDBTitle: crystal structure of betaine-aldehyde dehydrogenase from2 pseudoalteromonas atlantica t6c
80	d1lvaas	Alignment	not modelled	11.2	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain

					Family: C-terminal fragment of elongation factor SelB
81	c2kxqA	Alignment	not modelled	11.1	PDB header: protein binding Chain: A: PDB Molecule: e3 ubiquitin-protein ligase smurf2; PDBTitle: solution structure of smurf2 ww2 and ww3 bound to smad7 py motif2 containing peptide
82	c2d4eB	Alignment	not modelled	11.0	PDB header: oxidoreductase Chain: B: PDB Molecule: 5-carboxymethyl-2-hydroxymuconate semialdehyde PDBTitle: crystal structure of the hpcc from thermus thermophilus hb8
83	c2l4jA	Alignment	not modelled	10.7	PDB header: transcription Chain: A: PDB Molecule: yes-associated protein 2 (yap2); PDBTitle: yap ww2
84	d1f61a	Alignment	not modelled	10.6	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate mutase/Isocitrate lyase-like
85	c2ve5H	Alignment	not modelled	10.3	PDB header: oxidoreductase Chain: H: PDB Molecule: betaine aldehyde dehydrogenase; PDBTitle: crystallographic structure of betaine aldehyde2 dehydrogenase from pseudomonas aeruginosa
86	d1o5ha	Alignment	not modelled	10.2	Fold: Methenyltetrahydrofolate cyclohydrolase-like Superfamily: Methenyltetrahydrofolate cyclohydrolase-like Family: Methenyltetrahydrofolate cyclohydrolase-like
87	c2ysgA	Alignment	not modelled	10.1	PDB header: protein binding Chain: A: PDB Molecule: syntaxin-binding protein 4; PDBTitle: solution structure of the ww domain from the human syntaxin-2 binding protein 4
88	c3iwkB	Alignment	not modelled	10.0	PDB header: oxidoreductase Chain: B: PDB Molecule: aminoaldehyde dehydrogenase; PDBTitle: crystal structure of aminoaldehyde dehydrogenase 1 from2 pisum sativum (psamadh1)
89	d2f21a1	Alignment	not modelled	9.9	Fold: WW domain-like Superfamily: WW domain Family: WW domain
90	c2lazA	Alignment	not modelled	9.9	PDB header: signaling protein/transcription Chain: A: PDB Molecule: e3 ubiquitin-protein ligase smurf1; PDBTitle: structure of the first ww domain of human smurf1 in complex with a2 mono-phosphorylated human smad1 derived peptide
91	c2lb0A	Alignment	not modelled	9.9	PDB header: signaling protein/transcription Chain: A: PDB Molecule: e3 ubiquitin-protein ligase smurf1; PDBTitle: structure of the first ww domain of human smurf1 in complex with a di-2 phosphorylated human smad1 derived peptide
92	c3hazA	Alignment	not modelled	9.9	PDB header: oxidoreductase Chain: A: PDB Molecule: proline dehydrogenase; PDBTitle: crystal structure of bifunctional proline utilization a2 (puta) protein
93	c2a67C	Alignment	not modelled	9.8	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: isochorismatase family protein; PDBTitle: crystal structure of isochorismatase family protein
94	d1wdja	Alignment	not modelled	9.8	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Hypothetical protein TT1808 (TTHA1514)
95	c3lqyA	Alignment	not modelled	9.7	PDB header: hydrolase Chain: A: PDB Molecule: putative isochorismatase hydrolase; PDBTitle: crystal structure of putative isochorismatase hydrolase from2 oleispira antarctica
96	c2cfuA	Alignment	not modelled	9.6	PDB header: hydrolase Chain: A: PDB Molecule: sds1; PDBTitle: crystal structure of sds1, an alkylsulfatase from2 pseudomonas aeruginosa, in complex with 1-decan-sulfonic-3 acid.
97	c2dmvA	Alignment	not modelled	9.5	PDB header: ligase Chain: A: PDB Molecule: itchy homolog e3 ubiquitin protein ligase; PDBTitle: solution structure of the second ww domain of itchy homolog e3 ubiquitin protein ligase (itch)
98	c2ysfA	Alignment	not modelled	9.5	PDB header: protein binding Chain: A: PDB Molecule: e3 ubiquitin-protein ligase itchy homolog; PDBTitle: solution structure of the fourth ww domain from the human2 e3 ubiquitin-protein ligase itchy homolog, itch
99	c2w8qA	Alignment	not modelled	9.4	PDB header: oxidoreductase Chain: A: PDB Molecule: succinate-semialdehyde dehydrogenase, PDBTitle: the crystal structure of human ssadh in complex with ssa.