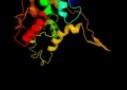
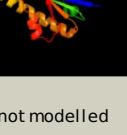


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P17411
Date	Thu Jan 5 11:36:08 GMT 2012
Unique Job ID	ae1f74aee6d47b8e

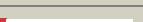
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1u8xX_			100.0	25	PDB header: hydrolase Chain: X; PDB Molecule: maltose-6'-phosphate glucosidase; PDBTitle: crystal structure of glva from bacillus subtilis, a metal-requiring,2 nad-dependent 6-phospho-alpha-glucosidase
2	c1s6yA_			100.0	53	PDB header: hydrolase Chain: A; PDB Molecule: 6-phospho-beta-glucosidase; PDBTitle: 2.3a crystal structure of phospho-beta-glucosidase
3	c1up6F_			100.0	32	PDB header: hydrolase Chain: F; PDB Molecule: 6-phospho-beta-glucosidase; PDBTitle: structure of the 6-phospho-beta glucosidase from thermotoga2 maritima at 2.55 angstrom resolution in the tetragonal form3 with manganese, nad+ and glucose-6-phosphate
4	c1vjta_			100.0	19	PDB header: hydrolase Chain: A; PDB Molecule: alpha-glucosidase; PDBTitle: crystal structure of alpha-glucosidase (tm0752) from thermotoga2 maritima at 2.50 a resolution
5	c1obbB_			100.0	25	PDB header: hydrolase Chain: B; PDB Molecule: alpha-glucosidase; PDBTitle: alpha-glucosidase a, agla, from thermotoga maritima in2 complex with maltose and nad+
6	c3fefB_			100.0	21	PDB header: hydrolase Chain: B; PDB Molecule: putative glucosidase lpid; PDBTitle: crystal structure of putative glucosidase lpid from2 bacillus subtilis
7	d1u8xx2			100.0	18	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: AglA-like glucosidase
8	d1s6ya2			100.0	43	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: AglA-like glucosidase
9	d1up7a2			100.0	29	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: AglA-like glucosidase
10	d1obba2			100.0	21	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: AglA-like glucosidase
11	d1vjta2			100.0	15	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: AglA-like glucosidase

12	c3p7mC	Alignment		100.0	21	PDB header: oxidoreductase Chain: C: PDB Molecule: malate dehydrogenase; PDBTitle: structure of putative lactate dehydrogenase from francisella2 tularensis subsp. tularensis schu s4
13	c1pzfD	Alignment		100.0	17	PDB header: oxidoreductase Chain: D: PDB Molecule: lactate dehydrogenase; PDBTitle: t gondii Idh1 ternary complex with apad+ and oxalate
14	c21dxA	Alignment		100.0	18	PDB header: oxidoreductase(choh(d)-nad(a)) Chain: A: PDB Molecule: apo-lactate dehydrogenase; PDBTitle: characterization of the antigenic sites on the refined 3-2 angstroms resolution structure of mouse testicular lactate3 dehydrogenase c4
15	c2v65A	Alignment		100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate dehydrogenase a chain; PDBTitle: apo Idh from the psychrophile c. gunnari
16	d1vjta1	Alignment		100.0	26	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
17	c1ez4B	Alignment		100.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: lactate dehydrogenase; PDBTitle: crystal structure of non-allosteric l-lactate dehydrogenase2 from lactobacillus pentosus at 2.3 angstrom resolution
18	c2fnzA	Alignment		100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: lactate dehydrogenase; PDBTitle: crystal structure of the lactate dehydrogenase from cryptosporidium2 parvum complexed with cofactor (b-nicotinamide adenine dinucleotide)3 and inhibitor (oxamic acid)
19	c2hjrK	Alignment		100.0	20	PDB header: oxidoreductase Chain: K: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of cryptosporidium parvum malate2 dehydrogenase
20	d1s6ya1	Alignment		100.0	68	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
21	c8ldhA	Alignment	not modelled	100.0	15	PDB header: oxidoreductase(choh(d)-nad(a)) Chain: A: PDB Molecule: m4 apo-lactate dehydrogenase; PDBTitle: refined crystal structure of dogfish m4 apo-lactate2 dehydrogenase
22	c3d0oA	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate dehydrogenase 1; PDBTitle: crystal structure of lactate dehydrogenase from2 staphylococcus aureus
23	c3gviB	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of lactate/malate dehydrogenase from2 brucella melitensis in complex with adp
24	c1a5zA	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate dehydrogenase; PDBTitle: lactate dehydrogenase from thermotoga maritima (tmdh)
25	c1lldA	Alignment	not modelled	100.0	18	PDB header: oxidoreductase(choh (d)-nad (a)) Chain: A: PDB Molecule: l-lactate dehydrogenase; PDBTitle: molecular basis of allosteric activation of bacterial l-lactate2 dehydrogenase
26	d1u8xx1	Alignment	not modelled	100.0	35	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
27	c3tl2A	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of bacillus anthracis str. ames malate dehydrogenase2 in closed conformation.
28	c1u4sA	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate dehydrogenase; PDBTitle: plasmodium falciparum lactate dehydrogenase complexed with 2,6-2 naphthalenedisulphonic acid
						Fold: NAD(P)-binding Rossmann-fold domains

29	d1up7a1	Alignment	not modelled	100.0	38	Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
30	c1ojua_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: 2.8 Å resolution structure of malate dehydrogenase from archaeoglobus fulgidus in complex with etheno-nad.
31	c1llcA_	Alignment	not modelled	100.0	17	PDB header: oxidoreductase(choh(d)-nad(a)) Chain: A: PDB Molecule: l-lactate dehydrogenase; PDBTitle: structure determination of the allosteric l-lactate dehydrogenase from <i>lactobacillus casei</i> at 3.0 angstroms resolution
32	c1hyhA_	Alignment	not modelled	100.0	20	PDB header: oxidoreductase (choh(d)-nad+(a)) Chain: A: PDB Molecule: l-2-hydroxyisocaprate dehydrogenase; PDBTitle: crystal structure of l-2-hydroxyisocaprate dehydrogenase from <i>lactobacillus confusus</i> at 2.2 angstroms resolution-an example of strong asymmetry between subunits
33	c3nepX_	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: X: PDB Molecule: malate dehydrogenase; PDBTitle: 1.55 Å resolution structure of malate dehydrogenase from <i>salinibacter ruber</i>
34	c3pqeD_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: D: PDB Molecule: l-lactate dehydrogenase; PDBTitle: crystal structure of l-lactate dehydrogenase from <i>bacillus subtilis</i> 2 with h171c mutation
35	c1ur5C_	Alignment	not modelled	100.0	20	PDB header: oxidoreductase Chain: C: PDB Molecule: malate dehydrogenase; PDBTitle: stabilization of a tetrameric malate dehydrogenase by2 introduction of a disulfide bridge at the dimer/dimer3 interface
36	c1hygA_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate/malate dehydrogenase; PDBTitle: crystal structure of mjo490 gene product, the family of2 lactate/malate dehydrogenase
37	d1lobba1	Alignment	not modelled	100.0	26	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
38	c7mdhA_	Alignment	not modelled	100.0	16	PDB header: chloroplastic malate dehydrogenase Chain: A: PDB Molecule: protein (malate dehydrogenase); PDBTitle: structural basis for light activation of a chloroplast enzyme, the2 structure of sorghum nadp-malate dehydrogenase in its oxidized form
39	c2e37B_	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: l-lactate dehydrogenase; PDBTitle: structure of tto471 protein from <i>thermus thermophilus</i>
40	c1b8vA_	Alignment	not modelled	100.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: protein (malate dehydrogenase); PDBTitle: malate dehydrogenase from <i>aquaspirillum arcticum</i>
41	c2v6bB_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: l-lactate dehydrogenase; PDBTitle: crystal structure of lactate dehydrogenase from <i>deinococcus2 radiodurans</i> (apo form)
42	c1gv1D_	Alignment	not modelled	100.0	22	PDB header: oxidoreductase Chain: D: PDB Molecule: malate dehydrogenase; PDBTitle: structural basis for thermophilic protein stability:2 structures of thermophilic and mesophilic malate3 dehydrogenases
43	c2pwzG_	Alignment	not modelled	100.0	15	PDB header: oxidoreductase Chain: G: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of the apo form of <i>e.coli</i> malate dehydrogenase
44	c2d4aC_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: C: PDB Molecule: malate dehydrogenase; PDBTitle: structure of the malate dehydrogenase from <i>aeropyrum pernix</i>
45	c5mdhB_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: B: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of ternary complex of porcine cytoplasmic malate2 dehydrogenase alpha-ketomalonate and nad at 2.4 angstroms resolution
46	c1ldbA_	Alignment	not modelled	100.0	21	PDB header: oxidoreductase(choh(d)-nad(a)) Chain: A: PDB Molecule: apo-l-lactate dehydrogenase; PDBTitle: structure determination and refinement of <i>bacillus2 stearothermophilus</i> lactate dehydrogenase
47	c1y6jA_	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: l-lactate dehydrogenase; PDBTitle: l-lactate dehydrogenase from <i>clostridium thermocellum</i> cth-1135
48	c1wzia_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: structural basis for alteration of cofactor specificity of2 malate dehydrogenase from <i>thermus flavus</i>
49	c3dl2A_	Alignment	not modelled	100.0	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ubiquitin-conjugating enzyme e2 variant 3; PDBTitle: hexagonal structure of the Idh domain of human ubiquitin-2 conjugating enzyme e2-like isoform a
50	c3fi9B_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of malate dehydrogenase from <i>porphyromonas2 gingivalis</i>
51	c1smkD_	Alignment	not modelled	100.0	14	PDB header: oxidoreductase Chain: D: PDB Molecule: malate dehydrogenase, glyoxysomal; PDBTitle: mature and translocatable forms of glyoxysomal malate2 dehydrogenase have different activities and stabilities3 but similar crystal structures
52	c1sevA_	Alignment	not modelled	100.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: malate dehydrogenase, glyoxysomal precursor; PDBTitle: mature and translocatable forms of glyoxysomal malate2 dehydrogenase have different activities and stabilities3 but similar crystal structures
						PDB header: oxidoreductase

53	c2dfdD_	Alignment	not modelled	100.0	15	Chain: D: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of human malate dehydrogenase type 2
54	c1mldA_	Alignment	not modelled	100.0	15	PDB header: oxidoreductase(nad(a)-choh(d)) Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: refined structure of mitochondrial malate dehydrogenase2 from porcine heart and the consensus structure for3 dicarboxylic acid oxidoreductases
55	c2hlpB_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: B: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of the e267r mutant of a halophilic2 malate dehydrogenase in the apo form
56	d1i0za1	Alignment	not modelled	99.9	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
57	d1o6za1	Alignment	not modelled	99.9	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
58	d1pzga1	Alignment	not modelled	99.9	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
59	d1i10a1	Alignment	not modelled	99.9	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
60	d1t2da1	Alignment	not modelled	99.9	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
61	d5ldha1	Alignment	not modelled	99.9	22	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
62	d9ldta1	Alignment	not modelled	99.9	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
63	d1y7ta1	Alignment	not modelled	99.9	19	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
64	d1a5za1	Alignment	not modelled	99.9	23	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
65	d1ojua1	Alignment	not modelled	99.9	18	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
66	d1b8pa1	Alignment	not modelled	99.9	18	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
67	d1ldna1	Alignment	not modelled	99.9	22	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
68	d1guza1	Alignment	not modelled	99.9	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
69	d2ldxa1	Alignment	not modelled	99.9	23	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
70	d1llda1	Alignment	not modelled	99.9	22	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
71	d1ldma1	Alignment	not modelled	99.9	16	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
72	d2cmda1	Alignment	not modelled	99.9	22	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
73	d1hyha1	Alignment	not modelled	99.9	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
74	d5mdha1	Alignment	not modelled	99.9	18	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
75	d1llca1	Alignment	not modelled	99.9	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
76	d7mdha1	Alignment	not modelled	99.9	16	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
77	d1gv0a1	Alignment	not modelled	99.9	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
78	d1cival	Alignment	not modelled	99.8	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
79	d1uxja1	Alignment	not modelled	99.8	19	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like
80	d1y6ja1	Alignment	not modelled	99.8	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: LDH N-terminal domain-like

109	d1lca2		Alignment	not modelled	99.2	14	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
110	d1mla2		Alignment	not modelled	99.1	11	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
111	d2cmda2		Alignment	not modelled	99.0	11	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
112	c3prjB		Alignment	not modelled	98.8	18	PDB header: oxidoreductase Chain: A: PDB Molecule: udp-glucose 6-dehydrogenase; PDBTitle: role of packing defects in the evolution of allostery and induced fit2 in human udp-glucose dehydrogenase.
113	c1m75B		Alignment	not modelled	98.7	18	PDB header: oxidoreductase Chain: B: PDB Molecule: 3-hydroxyacyl-coa dehydrogenase; PDBTitle: crystal structure of the n208s mutant of l-3-hydroxyacyl-2 coa dehydrogenase in complex with nad and acetoadetyl-coa
114	c1mv8A		Alignment	not modelled	98.6	21	PDB header: oxidoreductase Chain: A: PDB Molecule: gdp-mannose 6-dehydrogenase; PDBTitle: 1.55 angstrom resolution crystal structure of gdp-mannose2 dehydrogenase from psuedomonas aeruginosa
115	d1dlja2		Alignment	not modelled	98.6	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
116	d1txga2		Alignment	not modelled	98.5	10	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
117	c3k96B		Alignment	not modelled	98.5	16	PDB header: oxidoreductase Chain: B: PDB Molecule: glycerol-3-phosphate dehydrogenase [nad(p+)]; PDBTitle: 2.1 angstrom resolution crystal structure of glycerol-3-phosphate2 dehydrogenase (gpsa) from coxiella burnetii
118	c2y0dB		Alignment	not modelled	98.5	17	PDB header: oxidoreductase Chain: B: PDB Molecule: udp-glucose dehydrogenase; PDBTitle: bcec mutation y10k
119	c2q3eH		Alignment	not modelled	98.5	16	PDB header: oxidoreductase Chain: H: PDB Molecule: udp-glucose 6-dehydrogenase; PDBTitle: structure of human udp-glucose dehydrogenase complexed with nadh and2 udp-glucose
120	c3plnA		Alignment	not modelled	98.5	20	PDB header: oxidoreductase Chain: A: PDB Molecule: udp-glucose 6-dehydrogenase; PDBTitle: crystal structure of klebsiella pneumoniae udp-glucose 6-dehydrogenase2 complexed with udp-glucose