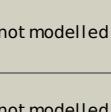


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P07004
Date	Thu Jan 5 10:59:56 GMT 2012
Unique Job ID	60502d34ce9534b7

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1o20a_	Alignment		100.0	46	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
2	c2h5gA_	Alignment		100.0	36	PDB header: oxidoreductase Chain: A: PDB Molecule: delta 1-pyrroline-5-carboxylate synthetase; PDBTitle: crystal structure of human pyrroline-5-carboxylate synthetase
3	c3hazA_	Alignment		100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: proline dehydrogenase; PDBTitle: crystal structure of bifunctional proline utilization a2 (puta) protein
4	d1uzba_	Alignment		100.0	17	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
5	d1a4sa_	Alignment		100.0	17	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
6	d1vluu_	Alignment		100.0	36	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
7	c3qanB_	Alignment		100.0	17	PDB header: oxidoreductase Chain: B: PDB Molecule: 1-pyrroline-5-carboxylate dehydrogenase 1; PDBTitle: crystal structure of 1-pyrroline-5-carboxylate dehydrogenase from2 bacillus halodurans
8	c2jg7G_	Alignment		100.0	19	PDB header: oxidoreductase Chain: G: PDB Molecule: antiquitin; PDBTitle: crystal structure of seabream antiquitin and elucidation of2 its substrate specificity
9	c3ed6B_	Alignment		100.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: betaine aldehyde dehydrogenase; PDBTitle: 1.7 angstrom resolution crystal structure of betaine aldehyde2 dehydrogenase (betb) from staphylococcus aureus
10	d1ad3a_	Alignment		100.0	16	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
11	d1bxsa_	Alignment		100.0	20	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like

12	d1o9ja_	Alignment		100.0	18	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
13	c2ve5H_	Alignment		100.0	17	PDB header: oxidoreductase Chain: H: PDB Molecule: betaine aldehyde dehydrogenase; PDBTitle: crystallographic structure of betaine aldehyde2 dehydrogenase from pseudomonas aeruginosa
14	c2d4eB_	Alignment		100.0	17	PDB header: oxidoreductase Chain: B: PDB Molecule: 5-carboxymethyl-2-hydroxymuconate semialdehyde PDBTitle: crystal structure of the hpcc from thermus thermophilus hb8
15	d1ag8a_	Alignment		100.0	18	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
16	c2o2qA_	Alignment		100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: formyltetrahydrofolate dehydrogenase; PDBTitle: crystal structure of the c-terminal domain of rat2 10' formyltetrahydrofolate dehydrogenase in complex with nadp
17	d1euha_	Alignment		100.0	17	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
18	c3rh9A_	Alignment		100.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: succinate-semialdehyde dehydrogenase (nad(p)(+)); PDBTitle: the crystal structure of oxidoreductase from marinobacter aquaeolei
19	c3prlD_	Alignment		100.0	19	PDB header: oxidoreductase Chain: D: PDB Molecule: nadp-dependent glyceraldehyde-3-phosphate dehydrogenase; PDBTitle: crystal structure of nadp-dependent glyceraldehyde-3-phosphate2 dehydrogenase from bacillus halodurans c-125
20	d1wnda_	Alignment		100.0	16	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
21	c2w8qA_	Alignment	not modelled	100.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: succinate-semialdehyde dehydrogenase, PDBTitle: the crystal structure of human ssadh in complex with ssa.
22	d1o04a_	Alignment	not modelled	100.0	18	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
23	c3iwkB_	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: aminoaldehyde dehydrogenase; PDBTitle: crystal structure of aminoaldehyde dehydrogenase 1 from pisum sativum (psamadh1)
24	d1ky8a_	Alignment	not modelled	100.0	20	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
25	c3ifgH_	Alignment	not modelled	100.0	16	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
26	c3ek1C_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: C: PDB Molecule: aldehyde dehydrogenase; PDBTitle: crystal structure of aldehyde dehydrogenase from brucella2 melitensis biovar abortus 2308
27	c1t90B_	Alignment	not modelled	100.0	17	PDB header: oxidoreductase Chain: B: PDB Molecule: probable methylmalonate-semialdehyde PDBTitle: crystal structure of methylmalonate semialdehyde2 dehydrogenase from bacillus subtilis
28	c3rosA_	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: nad-dependent aldehyde dehydrogenase; PDBTitle: crystal structure of nad-dependent aldehyde dehydrogenase from2 lactobacillus acidophilus

29	c3r31A	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: betaine aldehyde dehydrogenase; PDBTitle: crystal structure of betaine aldehyde dehydrogenase from agrobacterium2 tumefaciens
30	c3k2wD	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: D: PDB Molecule: betaine-aldehyde dehydrogenase; PDBTitle: crystal structure of betaine-aldehyde dehydrogenase from2 pseudoalteromonas atlantica t6c
31	c3jz4C	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: C: PDB Molecule: succinate-semialdehyde dehydrogenase [nadp+]; PDBTitle: crystal structure of e. coli nadp dependent enzyme
32	c3b4wA	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde dehydrogenase; PDBTitle: crystal structure of mycobacterium tuberculosis aldehyde dehydrogenase2 complexed with nad+
33	c3l44A	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde dehydrogenase; PDBTitle: crystal structure of aldehyde dehydrogenase from bartonella2 henselae at 2.0a resolution
34	c1vluB	Alignment		100.0	38	PDB header: oxidoreductase Chain: B: PDB Molecule: gamma-glutamyl phosphate reductase; PDBTitle: crystal structure of gamma-glutamyl phosphate reductase (yor323c) from2 saccharomyces cerevisiae at 2.40 a resolution
35	c3k9dD	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: D: PDB Molecule: aldehyde dehydrogenase; PDBTitle: crystal structure of probable aldehyde dehydrogenase from listeria2 monocytogenes egd-e
36	c2hg2A	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde dehydrogenase a; PDBTitle: structure of lactaldehyde dehydrogenase
37	c3pqA	Alignment	not modelled	100.0	16	PDB header: oxidoreductase Chain: A: PDB Molecule: lactaldehyde dehydrogenase; PDBTitle: crystal structure of glyceraldehyde-3-phosphate dehydrogenase gapn2 from methanocaldococcus jannaschii dsm 2661
38	c3v4cB	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: aldehyde dehydrogenase (nadp+); PDBTitle: crystal structure of a semialdehyde dehydrogenase from sinorhizobium2 meliloti 1021
39	c3efvC	Alignment	not modelled	100.0	17	PDB header: oxidoreductase Chain: C: PDB Molecule: putative succinate-semialdehyde dehydrogenase; PDBTitle: crystal structure of a putative succinate-semialdehyde dehydrogenase2 from salmonella typhimurium lt2 with bound nad
40	d1ez0a	Alignment	not modelled	100.0	18	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
41	c3ju8B	Alignment	not modelled	100.0	20	PDB header: oxidoreductase Chain: B: PDB Molecule: succinylglutamic semialdehyde dehydrogenase; PDBTitle: crystal structure of succinylglutamic semialdehyde dehydrogenase from2 pseudomonas aeruginosa.
42	d1bi9a	Alignment	not modelled	100.0	18	Fold: ALDH-like Superfamily: ALDH-like Family: ALDH-like
43	c2vroB	Alignment	not modelled	100.0	20	PDB header: oxidoreductase Chain: B: PDB Molecule: aldehyde dehydrogenase; PDBTitle: crystal structure of aldehyde dehydrogenase from2 burkholderia xenovorans lb400
44	c3lnsD	Alignment	not modelled	100.0	18	PDB header: oxidoreductase Chain: D: PDB Molecule: benzaldehyde dehydrogenase; PDBTitle: benzaldehyde dehydrogenase, a class 3 aldehyde dehydrogenase, with2 bound nadp+ and benzoate adduct
45	c3r64A	Alignment	not modelled	100.0	17	PDB header: oxidoreductase Chain: A: PDB Molecule: nad dependent benzaldehyde dehydrogenase; PDBTitle: crystal structure of a nad-dependent benzaldehyde dehydrogenase from2 corynebacterium glutamicum
46	c3my7A	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: A: PDB Molecule: alcohol dehydrogenase/acetaldehyde dehydrogenase; PDBTitle: the crystal structure of the acdh domain of an alcohol dehydrogenase2 from vibrio parahaemolyticus to 2.25a
47	d1k75a	Alignment	not modelled	98.5	16	Fold: ALDH-like Superfamily: ALDH-like Family: L-histidinol dehydrogenase HisD
48	c3jtpB	Alignment	not modelled	50.5	14	PDB header: protein binding Chain: B: PDB Molecule: adapter protein meca 1; PDBTitle: crystal structure of the c-terminal domain of meca
49	c2yukA	Alignment	not modelled	47.6	26	PDB header: transferase Chain: A: PDB Molecule: myeloid/lymphoid or mixed-lineage leukemia PDBTitle: solution structure of the hmg box of human myeloid/lymphoid2 or mixed-lineage leukemia protein 3 homolog
50	d1k99a	Alignment	not modelled	36.6	17	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
51	d1s7ia	Alignment	not modelled	35.7	11	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: DGPF domain (Pfam 04946)
52	d1g62a	Alignment	not modelled	32.9	17	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Ribosome anti-association factor eIF6 (aIF6)

53	c2crjA	Alignment	not modelled	31.2	18	PDB header: gene regulation Chain: A: PDB Molecule: swi/snf-related matrix-associated actin- PDBTitle: solution structure of the hmg domain of mouse hmg domain2 protein hmgx2
54	c3fghA	Alignment	not modelled	30.2	13	PDB header: transcription Chain: A: PDB Molecule: transcription factor a, mitochondrial; PDBTitle: human mitochondrial transcription factor a box b
55	c2ec4A	Alignment	not modelled	29.1	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: fas-associated factor 1; PDBTitle: solution structure of the uas domain from human fas-2 associated factor 1
56	c2gguA	Alignment	not modelled	27.7	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: probable signal peptide protein; PDBTitle: three-dimensional structure of the phospholipid-binding protein from2 ralstonia solanacearum q8xv73_ralsq in complex with a phospholipid at3 the resolution 1.53 a. northeast structural genomics consortium4 target rsr89
57	c3c8eB	Alignment	not modelled	26.3	21	PDB header: transferase Chain: B: PDB Molecule: yghu, glutathione s-transferase homologue; PDBTitle: crystal structure analysis of yghu from e. coli
58	c2eqzA	Alignment	not modelled	26.3	15	PDB header: transcription Chain: A: PDB Molecule: high mobility group protein b3; PDBTitle: solution structure of the first hmg-box domain from high2 mobility group protein b3
59	d1acoa2	Alignment	not modelled	25.8	7	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
60	d1j3xa	Alignment	not modelled	25.6	13	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
61	c1j3xA	Alignment	not modelled	25.6	13	PDB header: dna binding protein Chain: A: PDB Molecule: high mobility group protein 2; PDBTitle: solution structure of the n-terminal domain of the hmgb2
62	d1wo8a1	Alignment	not modelled	24.4	10	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Methylglyoxal synthase, Mgsa
63	c3e5bB	Alignment	not modelled	24.3	16	PDB header: lyase Chain: B: PDB Molecule: isocitrate lyase; PDBTitle: 2.4 a crystal structure of isocitrate lyase from brucella2 melitensis
64	c2cs1A	Alignment	not modelled	23.8	26	PDB header: dna binding protein Chain: A: PDB Molecule: pms1 protein homolog 1; PDBTitle: solution structure of the hmg domain of human dna mismatch2 repair protein
65	d1y5ea1	Alignment	not modelled	23.6	14	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
66	d1hsma	Alignment	not modelled	21.1	19	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
67	d2ftsa3	Alignment	not modelled	21.0	14	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
68	c5acnA	Alignment	not modelled	20.8	7	PDB header: lyase(carbon-oxygen) Chain: A: PDB Molecule: aconitase; PDBTitle: structure of activated aconitase. formation of the (4fe-4s)2 cluster in the crystal
69	d1j46a	Alignment	not modelled	20.5	20	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
70	c2co9A	Alignment	not modelled	20.4	15	PDB header: transcription Chain: A: PDB Molecule: thymus high mobility group box protein tox; PDBTitle: solution structure of the hmg_box domain of thymus high2 mobility group box protein tox from mouse
71	d1lwma	Alignment	not modelled	20.4	16	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
72	d1vdha	Alignment	not modelled	20.3	7	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Chlorite dismutase-like
73	c3g5oC	Alignment	not modelled	20.2	24	PDB header: toxin/antitoxin Chain: C: PDB Molecule: uncharacterized protein rv2866; PDBTitle: the crystal structure of the toxin-antitoxin complex relbe2 (rv2865-2 2866) from mycobacterium tuberculosis
74	d1euqb2	Alignment	not modelled	20.0	4	Fold: ATP-grasp Superfamily: Glutathione synthetase ATP-binding domain-like Family: Succinyl-CoA synthetase, beta-chain, N-terminal domain
75	d1v64a	Alignment	not modelled	19.4	18	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
76	d1v63a	Alignment	not modelled	19.2	5	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
77	d1j3da	Alignment	not modelled	19.0	21	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
78	d1u2ca2	Alignment	not modelled	18.9	14	Fold: Dystroglycan, domain 2 Superfamily: Dystroglycan, domain 2 Family: Dystroglycan, domain 2
						PDB header: ligase

79	c2yvqA	Alignment	not modelled	18.7	23	Chain: A: PDB Molecule: carbamoyl-phosphate synthase; PDBTitle: crystal structure of mgs domain of carbamoyl-phosphate2 synthetase from homo sapiens
80	d1hmfa	Alignment	not modelled	18.5	19	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
81	c1hmfA	Alignment	not modelled	18.5	19	PDB header: dna-binding Chain: A: PDB Molecule: high mobility group protein fragment-b; PDBTitle: structure of the hmg box motif in the b-domain of hmgb1
82	d2lefa	Alignment	not modelled	18.1	14	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
83	d1t0tv	Alignment	not modelled	17.9	7	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Chlorite dismutase-like
84	d2b3ya2	Alignment	not modelled	17.5	14	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
85	d1ckta	Alignment	not modelled	16.5	14	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
86	c3labA	Alignment	not modelled	16.0	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative kdpg (2-keto-3-deoxy-6-phosphogluconate) PDBTitle: crystal structure of a putative kdpg (2-keto-3-deoxy-6-phosphogluconate) aldolase from oleispira antarctica
87	c2b3yB	Alignment	not modelled	15.4	14	PDB header: lyase Chain: B: PDB Molecule: iron-responsive element binding protein 1; PDBTitle: structure of a monoclinic crystal form of human cytosolic aconitase2 (irp1)
88	d1gt0d	Alignment	not modelled	15.2	14	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
89	c1wx2A	Alignment	not modelled	15.1	16	PDB header: oxidoreductase/metal transport Chain: A: PDB Molecule: tyrosinase; PDBTitle: crystal structure of the oxy-form of the copper-bound streptomyces2 castaneoglobiosporus tyrosinase complexed with a caddie protein3 prepared by the addition of hydrogenperoxide
90	d1wmia1	Alignment	not modelled	14.9	25	Fold: RelE-like Superfamily: RelE-like Family: RelE-like
91	c2vxhF	Alignment	not modelled	14.5	12	PDB header: oxidoreductase Chain: F: PDB Molecule: chlorite dismutase; PDBTitle: the crystal structure of chlorite dismutase: a detox enzyme2 producing molecular oxygen
92	c1v8dc	Alignment	not modelled	14.2	21	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: hypothetical protein (tt1679); PDBTitle: crystal structure of the conserved hypothetical protein2 tt1679 from thermus thermophilus
93	d2dlxa1	Alignment	not modelled	14.0	8	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: UAS domain
94	c1aabA	Alignment	not modelled	13.5	15	PDB header: dna-binding Chain: A: PDB Molecule: high mobility group protein; PDBTitle: nmr structure of rat hmgb1 hmga fragment
95	d1aabA	Alignment	not modelled	13.5	15	Fold: HMG-box Superfamily: HMG-box Family: HMG-box
96	c1usdA	Alignment	not modelled	13.5	28	PDB header: signaling protein Chain: A: PDB Molecule: vasodilator-stimulated phosphoprotein; PDBTitle: human vasp tetramerisation domain l352m
97	d2nu7b2	Alignment	not modelled	13.2	9	Fold: ATP-grasp Superfamily: Glutathione synthetase ATP-binding domain-like Family: Succinyl-CoA synthetase, beta-chain, N-terminal domain
98	c2lhjA	Alignment	not modelled	12.8	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: high mobility group protein homolog nhp1; PDBTitle: nmr structure of the high mobility group protein-like protein nhp12 from babesia bovis t2bo (baboa.00841.a)
99	c3bpqD	Alignment	not modelled	12.7	14	PDB header: toxin Chain: D: PDB Molecule: toxin rele3; PDBTitle: crystal structure of relb-rele antitoxin-toxin complex from2 methanococcus jannaschii