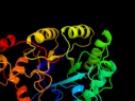
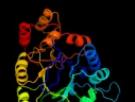
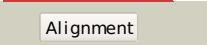
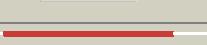
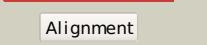
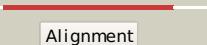


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P0A9T4
Date	Thu Jan 5 11:11:18 GMT 2012
Unique Job ID	f69ce9be839645e7

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1lqaa_	Alignment		100.0	100	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
2	c3erpA_	Alignment		100.0	31	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxidoreductase; PDBTitle: structure of idp01002, a putative oxidoreductase from and essential2 gene of salmonella typhimurium
3	d3eaual1	Alignment		100.0	32	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
4	c3lutA_	Alignment		100.0	32	PDB header: membrane protein Chain: A: PDB Molecule: voltage-gated potassium channel subunit beta-2; PDBTitle: a structural model for the full-length shaker potassium channel kv1.2
5	d1pyfa_	Alignment		100.0	29	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
6	c3n2tA_	Alignment		100.0	26	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxidoreductase; PDBTitle: structure of the glycerol dehydrogenase akr11b4 from gluconobacter2 oxydans
7	d1pz1a_	Alignment		100.0	30	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
8	d1gvea_	Alignment		100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
9	c3n6qF_	Alignment		100.0	31	PDB header: oxidoreductase Chain: F: PDB Molecule: yghz aldo-keto reductase; PDBTitle: crystal structure of yghz from e. coli
10	d1ur3m_	Alignment		100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
11	c2bp1C_	Alignment		100.0	25	PDB header: oxidoreductase Chain: C: PDB Molecule: aflatoxin b1 aldehyde reductase member 2; PDBTitle: structure of the aflatoxin aldehyde reductase in complex2 with nadph

12	d1q5ma_			100.0	25	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
13	d1j96a_			100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
14	c1ynpA_			100.0	33	PDB header: oxidoreductase Chain: A: PDB Molecule: oxidoreductase; PDBTitle: aldo-keto reductase akr1lc1 from bacillus halodurans (apo form)
15	c3h7uA_			100.0	29	PDB header: oxidoreductase Chain: A: PDB Molecule: aldo-keto reductase; PDBTitle: crystal structure of the plant stress-response enzyme akr4c9
16	d1afsa_			100.0	20	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
17	d1us0a_			100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
18	d1mi3a_			100.0	26	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
19	d1frba_			100.0	24	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
20	d1s1pa_			100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
21	d1qwka_		not modelled	100.0	24	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
22	d1hqta_		not modelled	100.0	25	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
23	c3buvB_		not modelled	100.0	20	PDB header: oxidoreductase Chain: B: PDB Molecule: 3-oxo-5-beta-steroid 4-dehydrogenase; PDBTitle: crystal structure of human delta(4)-3-ketosteroid 5-beta-reductase in2 complex with nadp and hepes. resolution: 1.35 a.
24	c3f7jB_		not modelled	100.0	32	PDB header: oxidoreductase Chain: B: PDB Molecule: vgvn protein; PDBTitle: b.subtilis vgvn
25	c3up8B_		not modelled	100.0	27	PDB header: oxidoreductase Chain: B: PDB Molecule: putative 2,5-diketo-d-gluconic acid reductase b; PDBTitle: crystal structure of a putative 2,5-diketo-d-gluconic acid reductase b
26	c3h7rA_		not modelled	100.0	27	PDB header: oxidoreductase Chain: A: PDB Molecule: aldo-keto reductase; PDBTitle: crystal structure of the plant stress-response enzyme akr4c8
27	c1zgdB_		not modelled	100.0	24	PDB header: plant protein Chain: B: PDB Molecule: chalcone reductase; PDBTitle: chalcone reductase complexed with nadp+ at 1.7 angstrom2 resolution
28	d1ah4a_		not modelled	100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)

29	d1c9wa	Alignment	not modelled	100.0	24	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
30	d2alra	Alignment	not modelled	100.0	25	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
31	c2wztA	Alignment	not modelled	100.0	26	PDB header: oxidoreductase Chain: A: PDB Molecule: aldo-keto reductase; PDBTitle: crystal structure of a mycobacterium aldo-keto reductase in2 its apo and liganded form
32	d1mzra	Alignment	not modelled	100.0	29	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
33	c2bgsA	Alignment	not modelled	100.0	24	PDB header: oxidoreductase Chain: A: PDB Molecule: aldose reductase; PDBTitle: holo aldose reductase from barley
34	d1vp5a	Alignment	not modelled	100.0	23	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
35	c3o0kB	Alignment	not modelled	100.0	23	PDB header: oxidoreductase Chain: B: PDB Molecule: aldo/keto reductase; PDBTitle: crystal structure of aldo/keto reductase from brucella melitensis
36	d1hw6a	Alignment	not modelled	100.0	27	Fold: TIM beta/alpha-barrel Superfamily: NAD(P)-linked oxidoreductase Family: Aldo-keto reductases (NADP)
37	c3b3dA	Alignment	not modelled	100.0	29	PDB header: oxidoreductase Chain: A: PDB Molecule: putative morphine dehydrogenase; PDBTitle: b.subtilis tyte
38	c1vbjB	Alignment	not modelled	100.0	25	PDB header: oxidoreductase Chain: B: PDB Molecule: prostaglandin f synthase; PDBTitle: the crystal structure of prostaglandin f synthase from2 trypanosoma brucei
39	c3krbB	Alignment	not modelled	100.0	25	PDB header: oxidoreductase Chain: B: PDB Molecule: aldose reductase; PDBTitle: structure of aldose reductase from giardia lamblia at 1.75a resolution
40	c3ln3A	Alignment	not modelled	100.0	23	PDB header: oxidoreductase Chain: A: PDB Molecule: dihydrodiol dehydrogenase; PDBTitle: crystal structure of putative reductase (np_038806.2) from2 musculus at 1.18 a resolution
41	d1olta	Alignment	not modelled	64.4	17	Fold: TIM beta/alpha-barrel Superfamily: Radical SAM enzymes Family: Oxygen-independent coproporphyrinogen III oxidase HemN
42	d2aeba1	Alignment	not modelled	55.7	10	Fold: Arginase/deacetylase Superfamily: Arginase/deacetylase Family: Arginase-like amidino hydrolases
43	d1rioa	Alignment	not modelled	46.4	20	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
44	c3l23A	Alignment	not modelled	45.3	10	PDB header: isomerase Chain: A: PDB Molecule: sugar phosphate isomerase/epimerase; PDBTitle: crystal structure of sugar phosphate isomerase/epimerase2 (yp_001303399.1) from parabacteroides distasonis atcc 8503 at 1.70 a3 resolution
45	c3oqbF	Alignment	not modelled	45.0	10	PDB header: oxidoreductase Chain: F: PDB Molecule: oxidoreductase; PDBTitle: crystal structure of putative oxidoreductase from bradyrhizobium2 japonicum usda 110
46	c2ph5A	Alignment	not modelled	43.5	21	PDB header: transferase Chain: A: PDB Molecule: homospermidine synthase; PDBTitle: crystal structure of the homospermidine synthase hss from legionella2 pneumophila in complex with nad, northeast structural genomics target3 lgr54
47	c2v5jB	Alignment	not modelled	41.0	6	PDB header: lyase Chain: B: PDB Molecule: 2,4-dihydroxyhept-2-ene-1,7-dioic acid aldolase; PDBTitle: apo class ii aldolase hpcb
48	c2vwtA	Alignment	not modelled	41.0	10	PDB header: lyase Chain: A: PDB Molecule: yfa, 2-keto-3-deoxy sugar aldolase; PDBTitle: crystal structure of yfa, a metal ion dependent class ii2 aldolase from escherichia coli k12 - mg-pyruvate product3 complex
49	c3f6wE	Alignment	not modelled	40.7	16	PDB header: dna binding protein Chain: E: PDB Molecule: xre-family like protein; PDBTitle: xre-family like protein from pseudomonas syringae pv. tomato str.2 dc3000
50	c3bdkB	Alignment	not modelled	40.5	17	PDB header: lyase Chain: B: PDB Molecule: d-mannuronate dehydratase; PDBTitle: crystal structure of streptococcus suis mannone2 dehydratase complexed with substrate analogue
51	d1imb3	Alignment	not modelled	40.0	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
52	c3lmyA	Alignment	not modelled	38.9	21	PDB header: hydrolase Chain: A: PDB Molecule: beta-hexosaminidase subunit beta; PDBTitle: the crystal structure of beta-hexosaminidase b in complex with2 pyrimethamine
53	c3n2oA	Alignment	not modelled	38.2	17	PDB header: lyase Chain: A: PDB Molecule: biosynthetic arginine decarboxylase; PDBTitle: x-ray crystal structure of arginine decarboxylase complexed with2 arginine from vibrio vulnificus
54	d1nowa1	Alignment	not modelled	36.1	21	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
						PDB header: dna binding protein

55	c3eusB	Alignment	not modelled	34.5	16	<p>Chain: B: PDB Molecule:dna-binding protein; PDBTitle: the crystal structure of the dna binding protein from silicibacter2 pomeroyi</p> <p>PDB header:biosynthetic protein Chain: A: PDB Molecule:probable spore coat polysaccharide biosynthesis protein e; PDBTitle: crystal structure of putative spore coat polysaccharide biosynthesis2 protein e from chromobacterium violaceum atcc 12472</p>
56	c3g8rA	Alignment	not modelled	34.3	16	<p>Fold:lambda repressor-like DNA-binding domains Superfamily:lambda repressor-like DNA-binding domains Family:Phage repressors</p>
57	d1lib	Alignment	not modelled	33.5	19	<p>PDB header:lyase Chain: C: PDB Molecule:hmg-coa lyase; PDBTitle: crystal structure of the bacillus subtilis hmg-coa lyase, northeast2 structural genomics target sr181.</p>
58	clydoC	Alignment	not modelled	33.3	13	<p>Fold:TIM beta/alpha-barrel Superfamily:Enolase C-terminal domain-like Family:D-glucarate dehydratase-like</p>
59	d1r0ma1	Alignment	not modelled	31.7	19	<p>PDB header:isomerase Chain: D: PDB Molecule:d-psicose 3-epimerase; PDBTitle: crystal structure of d-psicose 3-epimerase (dpease) in the presence of2 d-fructose</p>
60	c2hk1D	Alignment	not modelled	31.6	9	<p>Fold:TIM beta/alpha-barrel Superfamily:Enolase C-terminal domain-like Family:D-glucarate dehydratase-like</p>
61	d1rvka1	Alignment	not modelled	31.6	15	<p>Fold:TIM beta/alpha-barrel Superfamily:Enolase C-terminal domain-like Family:D-glucarate dehydratase-like</p>
62	d1jpma1	Alignment	not modelled	31.2	17	<p>Fold:TIM beta/alpha-barrel Superfamily:Enolase C-terminal domain-like Family:D-glucarate dehydratase-like</p>
63	c2l8nA	Alignment	not modelled	30.6	14	<p>PDB header:transcription regulator Chain: A: PDB Molecule:transcriptional repressor cytr; PDBTitle: nmr structure of the cytidine repressor dna binding domain in presence2 of operator half-site dna</p>
64	c3bolB	Alignment	not modelled	30.4	9	<p>PDB header:transferase Chain: B: PDB Molecule:5-methyltetrahydrofolate s-homocysteine PDBTitle: cobalamin-dependent methionine synthase (1-566) from2 thermotoga maritima complexed with zn2+</p>
65	d1pq3a	Alignment	not modelled	30.3	7	<p>Fold:Arginase/deacetylase Superfamily:Arginase/deacetylase Family:Arginase-like amidino hydrolases</p>
66	d1x87a	Alignment	not modelled	29.8	21	<p>Fold:Urocanase Superfamily:Urocanase Family:Urocanase</p>
67	c3ik4A	Alignment	not modelled	29.7	15	<p>PDB header:isomerase Chain: A: PDB Molecule:mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of mandelate racemase/muconate lactonizing protein2 from herpetosiphon aurantiacus</p>
68	c1nouA	Alignment	not modelled	29.1	21	<p>PDB header:hydrolase Chain: A: PDB Molecule:beta-hexosaminidase beta chain; PDBTitle: native human lysosomal beta-hexosaminidase isoform b</p>
69	d1jfla1	Alignment	not modelled	27.3	15	<p>Fold:ATC-like Superfamily:Aspartate/glutamate racemase Family:Aspartate/glutamate racemase</p>
70	d2ceva	Alignment	not modelled	27.2	8	<p>Fold:Arginase/deacetylase Superfamily:Arginase/deacetylase Family:Arginase-like amidino hydrolases</p>
71	c1xuzA	Alignment	not modelled	27.0	16	<p>PDB header:biosynthetic protein Chain: A: PDB Molecule:polysialic acid capsule biosynthesis protein sia;</p> <p>PDBTitle: crystal structure analysis of sialic acid synthase (neub)from2 neisseria meningitidis, bound to mn2+, phosphoenolpyruvate, and n-3 acetyl mannosaminitol</p>
72	c2nqlB	Alignment	not modelled	26.9	12	<p>PDB header:structural genomics, unknown function Chain: B: PDB Molecule:isomerase/lactonizing enzyme; PDBTitle: crystal structure of a member of the enolase superfamily from2 agrobacterium tumefaciens</p>
73	c3dx5A	Alignment	not modelled	26.6	13	<p>PDB header:lyase Chain: A: PDB Molecule:uncharacterized protein asbf; PDBTitle: crystal structure of the probable 3-dhs dehydratase asbf involved in2 the petrobactin synthesis from bacillus anthracis</p>
74	d1d3va	Alignment	not modelled	26.3	10	<p>Fold:Arginase/deacetylase Superfamily:Arginase/deacetylase Family:Arginase-like amidino hydrolases</p>
75	c21cvA	Alignment	not modelled	26.3	14	<p>PDB header:transcription regulator Chain: A: PDB Molecule:hth-type transcriptional repressor cytr; PDBTitle: structure of the cytidine repressor dna-binding domain; an alternate2 calculation</p>
76	d1uwka	Alignment	not modelled	25.5	26	<p>Fold:Urocanase Superfamily:Urocanase Family:Urocanase</p>
77	c3pg8B	Alignment	not modelled	25.4	15	<p>PDB header:transferase Chain: B: PDB Molecule:phospho-2-dehydro-3-deoxyheptonate aldolase; PDBTitle: truncated form of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase2 from thermotoga maritima</p>
78	c3b7hA	Alignment	not modelled	24.7	12	<p>PDB header:structural protein Chain: A: PDB Molecule:prophage lp1 protein 11; PDBTitle: crystal structure of the prophage lp1 protein 11</p>
79	c3mmrA	Alignment	not modelled	24.2	4	<p>PDB header:hydrolase Chain: A: PDB Molecule:arginase; PDBTitle: structure of plasmodium falciparum arginase in complex with abh</p>
						<p>PDB header:hydrolase Chain: A: PDB Molecule:haloacid dehalogenase/epoxide</p>

80	c2pr7A_	Alignment	not modelled	24.0	10	hydrolase family; PDBTitle: crystal structure of uncharacterized protein (np_599989.1) from corynebacterium glutamicum atcc 13032 kitasato at 1.44 a resolution
81	c1sjaA_	Alignment	not modelled	23.7	16	PDB header: lyase, isomerase Chain: A: PDB Molecule: n-acylamino acid racemase; PDBTitle: x-ray structure of o-succinylbenzoate synthase complexed2 with n-acetylmethionine
82	d1wuea1	Alignment	not modelled	23.6	17	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: D-glucarate dehydratase-like
83	c3dnfB_	Alignment	not modelled	23.4	14	PDB header: oxidoreductase Chain: B: PDB Molecule: 4-hydroxy-3-methylbut-2-enyl diphosphate reductase; PDBTitle: structure of (e)-4-hydroxy-3-methyl-but-2-enyl diphosphate reductase,2 the terminal enzyme of the non-mevalonate pathway
84	c3m1rF_	Alignment	not modelled	22.6	11	PDB header: hydrolase Chain: F: PDB Molecule: formimidoylglutamate; PDBTitle: the crystal structure of formimidoylglutamate from bacillus2 subtilis subsp. subtilis str. 168
85	d1nu5a1	Alignment	not modelled	22.6	14	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: D-glucarate dehydratase-like
86	d2hsga1	Alignment	not modelled	20.4	20	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
87	c1qbaA_	Alignment	not modelled	20.3	23	PDB header: glycosyl hydrolase Chain: A: PDB Molecule: chitobiase; PDBTitle: bacterial chitobiase, glycosyl hydrolase family 20
88	c3t76A_	Alignment	not modelled	20.2	9	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator vanug; PDBTitle: crystal structure of transcriptional regulator vanug, form ii
89	d1y9qal	Alignment	not modelled	20.2	14	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Probable transcriptional regulator VC1968, N-terminal domain
90	c2fknC_	Alignment	not modelled	20.2	27	PDB header: lyase Chain: C: PDB Molecule: urocanate hydratase; PDBTitle: crystal structure of urocanase from bacillus subtilis
91	d2a6ca1	Alignment	not modelled	19.9	21	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: NE1354
92	d1izca_	Alignment	not modelled	19.9	13	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: HpcH/Hpal aldolase
93	c1izca_	Alignment	not modelled	19.9	13	PDB header: lyase Chain: A: PDB Molecule: macrophomate synthase intermolecular diels-alderase; PDBTitle: crystal structure analysis of macrophomate synthase
94	c3smaD_	Alignment	not modelled	19.0	20	PDB header: transferase Chain: D: PDB Molecule: frbf; PDBTitle: a new n-acetyltransferase fold in the structure and mechanism of the2 phosphonate biosynthetic enzyme frbf
95	c2ovlA_	Alignment	not modelled	19.0	18	PDB header: isomerase Chain: A: PDB Molecule: putative racemase; PDBTitle: crystal structure of a racemase from streptomyces2 coelicolor a3(2)
96	c3nsnA_	Alignment	not modelled	19.0	10	PDB header: hydrolase Chain: A: PDB Molecule: n-acetylglucosaminidase; PDBTitle: crystal structure of insect beta-n-acetyl-d-hexosaminidase ofhex12 complexed with tmg-chitotriomycin
97	d2chra1	Alignment	not modelled	18.8	15	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: D-glucarate dehydratase-like
98	c3nzqB_	Alignment	not modelled	17.9	17	PDB header: lyase Chain: B: PDB Molecule: biosynthetic arginine decarboxylase; PDBTitle: crystal structure of biosynthetic arginine decarboxylase adc (spea)2 from escherichia coli, northeast structural genomics consortium3 target er600
99	d1f6ya_	Alignment	not modelled	17.7	15	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Methyltetrahydrofolate-utilizing methyltransferases