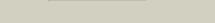
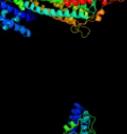
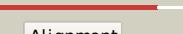
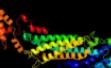
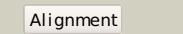
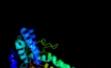
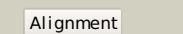
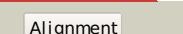
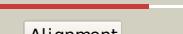
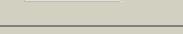
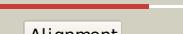
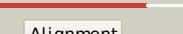


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P11447
Date	Thu Jan 5 11:32:38 GMT 2012
Unique Job ID	3aaa938b36751f11

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1tj7a_			100.0	100	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
2	d1i0aa_			100.0	41	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
3	d1tjva_			100.0	44	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
4	d1k62a_			100.0	44	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
5	c2e9fc_			100.0	50	PDB header: lyase Chain: C: PDB Molecule: argininosuccinate lyase; PDBTitle: crystal structure of t.th.hb8 argininosuccinate lyase complexed with 2 l-arginine
6	d1hy0a_			100.0	43	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
7	c2pfmA_			100.0	18	PDB header: lyase Chain: A: PDB Molecule: adenylosuccinate lyase; PDBTitle: crystal structure of adenylosuccinate lyase (purB) from bacillus2 anthracis
8	d1c3ca_			100.0	18	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
9	d1q5na_			100.0	19	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
10	d1re5a_			100.0	23	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
11	c3c8tA_			100.0	22	PDB header: lyase Chain: A: PDB Molecule: fumarate lyase; PDBTitle: crystal structure of fumarate lyase from mesorhizobium sp. bnc1

12	d1fuoa_			100.0	20	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
13	d1j3ua_			100.0	20	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
14	c2vd6B_			100.0	17	PDB header: lyase Chain: B: PDB Molecule: adenylosuccinate lyase; PDBTitle: human adenylosuccinate lyase in complex with its substrate2 n6-(1,2-dicarboxethyl)-amp, and its products amp and3 fumarate.
15	d1yfma_			100.0	20	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
16	c1yfma_			100.0	20	PDB header: lyase Chain: A: PDB Molecule: fumarase; PDBTitle: recombinant yeast fumarase
17	d1vdka_			100.0	20	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
18	c3no9C_			100.0	19	PDB header: lyase Chain: C: PDB Molecule: fumarate hydratase class ii; PDBTitle: crystal structure of apo fumarate hydratase from mycobacterium2 tuberculosis
19	d1jswa_			100.0	19	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
20	c2qgaC_			100.0	16	PDB header: lyase Chain: C: PDB Molecule: adenylosuccinate lyase; PDBTitle: plasmodium vivax adenylosuccinate lyase pv003765 with amp bound
21	c3ocfb_		not modelled	100.0	22	PDB header: lyase Chain: B: PDB Molecule: fumarate lyase:delta crystallin; PDBTitle: crystal structure of fumarate lyase:delta crystallin from brucella2 melitensis in native form
22	d1dofa_		not modelled	100.0	19	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
23	c3bhgA_		not modelled	100.0	16	PDB header: lyase Chain: A: PDB Molecule: adenylosuccinate lyase; PDBTitle: crystal structure of adenylosuccinate lyase from legionella2 pneumophila
24	d1jswc_		not modelled	100.0	19	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
25	c2ptsA_		not modelled	100.0	18	PDB header: lyase Chain: A: PDB Molecule: adenylosuccinate lyase; PDBTitle: crystal structure of wild type escherichia coli adenylosuccinate lyase
26	c1yisA_		not modelled	100.0	15	PDB header: lyase Chain: A: PDB Molecule: adenylosuccinate lyase; PDBTitle: structural genomics of caenorhabditis elegans: adenylosuccinate lyase
27	c3e04C_		not modelled	100.0	19	PDB header: lyase Chain: C: PDB Molecule: fumarate hydratase; PDBTitle: crystal structure of human fumarate hydratase
28	c3gtdB_		not modelled	100.0	18	PDB header: lyase Chain: B: PDB Molecule: fumarate hydratase class ii; PDBTitle: 2.4 angstrom crystal structure of fumarate hydratase from rickettsia2 provazekii
						PDB header: isomerase

29	c2fenA		Alignment	not modelled	100.0	17	Chain: A: PDB Molecule: 3-carboxy-cis,cis-muconate lactonizing enzyme; PDBTitle: 3-carboxy-cis,cis-muconate lactonizing enzyme from agrobacterium2 radiobacter s2
30	d1f1oa		Alignment	not modelled	100.0	19	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
31	c3r6yG		Alignment	not modelled	100.0	21	PDB header: lyase Chain: G: PDB Molecule: aspartase; PDBTitle: crystal structure of chymotrypsin-treated aspartase from bacillus sp.2 ym55-1
32	c2rcyB		Alignment	not modelled	61.8	22	PDB header: oxidoreductase Chain: B: PDB Molecule: pyrroline carboxylate reductase; PDBTitle: crystal structure of plasmodium falciparum pyrroline carboxylate2 reductase (mal13p1.284) with nadp bound
33	c1x5bA		Alignment	not modelled	50.7	29	PDB header: protein binding Chain: A: PDB Molecule: signal transducing adaptor molecule 2; PDBTitle: the solution structure of the vhs domain of human signal2 transducing adaptor molecule 2
34	d2ahra1		Alignment	not modelled	38.0	28	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: ProC C-terminal domain-like
35	d2di4a1		Alignment	not modelled	33.6	18	Fold: FtsH protease domain-like Superfamily: FtsH protease domain-like Family: FtsH protease domain-like
36	d1yqga1		Alignment	not modelled	32.1	25	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: ProC C-terminal domain-like
37	c2ctoA		Alignment	not modelled	30.2	58	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: novel protein; PDBTitle: solution structure of the hmg box like domain from human2 hypothetical protein flj14904
38	c2xgvA		Alignment	not modelled	27.8	28	PDB header: viral protein Chain: A: PDB Molecule: psv capsid n-terminal domain; PDBTitle: structure of the n-terminal domain of capsid protein from2 rabbit endogenous lentivirus (relik)
39	d1u5ta1		Alignment	not modelled	22.9	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
40	c1p74B		Alignment	not modelled	19.6	16	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate 5-dehydrogenase; PDBTitle: crystal structure of shikimate dehydrogenase (aroe) from2 haemophilus influenzae
41	d1nvta2		Alignment	not modelled	19.0	14	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Shikimate dehydrogenase-like
42	c3fbtB		Alignment	not modelled	18.7	13	PDB header: oxidoreductase, lyase Chain: B: PDB Molecule: chorismate mutase and shikimate 5-dehydrogenase PDBTitle: crystal structure of a chorismate mutase/shikimate 5-2 dehydrogenase fusion protein from clostridium3 acetobutylicum
43	d1vi2a2		Alignment	not modelled	16.5	15	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Shikimate dehydrogenase-like
44	c3bbnC		Alignment	not modelled	16.1	63	PDB header: ribosome Chain: C: PDB Molecule: ribosomal protein s3; PDBTitle: homology model for the spinach chloroplast 30s subunit2 fitted to 9.4a cryo-em map of the 70s chlororibosome.
45	c2vs0B		Alignment	not modelled	15.6	10	PDB header: cell invasion Chain: B: PDB Molecule: virulence factor esxa; PDBTitle: structural analysis of homodimeric staphylococcal aureus2 virulence factor esxa
46	d1npya2		Alignment	not modelled	15.1	21	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Shikimate dehydrogenase-like
47	c3pgjB		Alignment	not modelled	14.9	17	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate dehydrogenase; PDBTitle: 2.49 angstrom resolution crystal structure of shikimate 5-2 dehydrogenase (aroe) from vibrio cholerae o1 biovar eltor str. n169613 in complex with shikimate
48	c2ev9B		Alignment	not modelled	14.9	15	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate 5-dehydrogenase; PDBTitle: crystal structure of shikimate 5-dehydrogenase (aroe) from thermus2 thermophilus hb8 in complex with nadp(h) and shikimate
49	c2zmeA		Alignment	not modelled	14.4	13	PDB header: protein transport Chain: A: PDB Molecule: vacuolar-sorting protein snf8; PDBTitle: integrated structural and functional model of the human escrt-ii2 complex
50	d1phza2		Alignment	not modelled	14.4	22	Fold: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Superfamily: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Family: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains
51	d1g3pa2		Alignment	not modelled	14.3	33	Fold: N-terminal domains of the minor coat protein g3p Superfamily: N-terminal domains of the minor coat protein g3p Family: N-terminal domains of the minor coat protein g3p
52	c1nvta		Alignment	not modelled	14.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate 5'-dehydrogenase; PDBTitle: crystal structure of shikimate dehydrogenase (aroe or2 mj1084) in complex with nadp+
53	d2ga1a1		Alignment	not modelled	13.8	24	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Air1493-like

54	c3o8qB		Alignment	not modelled	13.6	17	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate 5-dehydrogenase i alpha; PDBTitle: 1.45 angstrom resolution crystal structure of shikimate 5-2 dehydrogenase (aroE) from vibrio cholerae
55	c3tozA		Alignment	not modelled	13.5	27	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate dehydrogenase; PDBTitle: 2.2 angstrom crystal structure of shikimate 5-dehydrogenase from listeria monocytogenes in complex with nad.
56	c2nloA		Alignment	not modelled	13.5	16	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate dehydrogenase; PDBTitle: crystal structure of the quinate dehydrogenase from corynebacterium2 glutamicum
57	c2hk8B		Alignment	not modelled	12.9	20	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate dehydrogenase; PDBTitle: crystal structure of shikimate dehydrogenase from aquifex2 aeolicus at 2.35 angstrom resolution
58	c2ag8A		Alignment	not modelled	12.8	13	PDB header: oxidoreductase Chain: A: PDB Molecule: pyrroline-5-carboxylate reductase; PDBTitle: nadp complex of pyrroline-5-carboxylate reductase from neisseria2 meningitidis
59	d1mlwa		Alignment	not modelled	12.3	17	Fold: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Superfamily: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Family: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains
60	c1u5tA		Alignment	not modelled	12.1	23	PDB header: transport protein Chain: A: PDB Molecule: appears to be functionally related to snf7; PDBTitle: structure of the escrt-ii endosomal trafficking complex
61	c3e2tA		Alignment	not modelled	11.9	17	PDB header: oxidoreductase Chain: A: PDB Molecule: tryptophan 5-hydroxylase 1; PDBTitle: the catalytic domain of chicken tryptophan hydroxylase 12 with bound tryptophan
62	d1dlja1		Alignment	not modelled	11.4	20	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: UDP-glucose/GDP-mannose dehydrogenase dimerisation domain
63	c1wjvA		Alignment	not modelled	11.2	56	PDB header: dna binding protein Chain: A: PDB Molecule: cell growth regulating nucleolar protein lyar; PDBTitle: solution structure of the n-terminal zinc finger domain of2 mouse cell growth regulating nucleolar protein lyar
64	d1j8ua		Alignment	not modelled	11.2	22	Fold: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Superfamily: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Family: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains
65	c3gt0A		Alignment	not modelled	11.1	26	PDB header: oxidoreductase Chain: A: PDB Molecule: pyrroline-5-carboxylate reductase; PDBTitle: crystal structure of pyrroline 5-carboxylate reductase from bacillus2 cereus. northeast structural genomics consortium target bcr38b
66	d2qalc1		Alignment	not modelled	11.0	38	Fold: Alpha-lytic protease prodomain-like Superfamily: Prokaryotic type KH domain (KH-domain type II) Family: Prokaryotic type KH domain (KH-domain type II)
67	c3pwzA		Alignment	not modelled	10.9	13	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate dehydrogenase 3; PDBTitle: crystal structure of an ael1 enzyme from pseudomonas putida
68	c2eggA		Alignment	not modelled	10.8	14	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate 5-dehydrogenase; PDBTitle: crystal structure of shikimate 5-dehydrogenase (aroE) from2 geobacillus kaustophilus
69	d1p77a2		Alignment	not modelled	10.8	15	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Shikimate dehydrogenase-like
70	d1k6ya1		Alignment	not modelled	10.7	20	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	c1nytC		Alignment	not modelled	10.7	18	PDB header: oxidoreductase Chain: C: PDB Molecule: shikimate 5-dehydrogenase; PDBTitle: shikimate dehydrogenase aroe complexed with nadp+
72	c3cuqA		Alignment	not modelled	10.5	13	PDB header: protein transport Chain: A: PDB Molecule: vacuolar-sorting protein snf8; PDBTitle: integrated structural and functional model of the human escrt-ii2 complex
73	d1e0ea		Alignment	not modelled	10.5	35	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
74	d2qy9a1		Alignment	not modelled	10.5	21	Fold: Four-helical up-and-down bundle Superfamily: Domain of the SRP/SRP receptor G-proteins Family: Domain of the SRP/SRP receptor G-proteins
75	c3u62A		Alignment	not modelled	10.4	15	PDB header: oxidoreductase Chain: A: PDB Molecule: shikimate dehydrogenase; PDBTitle: crystal structure of shikimate dehydrogenase from thermotoga maritima
76	c1npvA		Alignment	not modelled	10.4	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical shikimate 5-dehydrogenase-like PDBTitle: structure of shikimate 5-dehydrogenase-like protein hi0607
77	c3ke2A		Alignment	not modelled	10.3	19	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein yp_928783.1; PDBTitle: crystal structure of a duf2131 family protein (sama_2911) from2 shewanella amazonensis sb2b at 2.50 a resolution

78	d1q3ma	Alignment	not modelled	10.0	33	Fold: GLA-domain Superfamily: GLA-domain Family: GLA-domain
79	d1nyta2	Alignment	not modelled	9.9	15	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Shikimate dehydrogenase-like
80	d1wjfa	Alignment	not modelled	9.9	20	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
81	c2o8kA	Alignment	not modelled	9.4	23	PDB header: transcription/dna Chain: A: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: nmr structure of the sigma-54 rpon domain bound to the-242 promoter element
82	c3hfrA	Alignment	not modelled	9.0	24	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of glutamate racemase from listeria monocytogenes
83	d1vkma	Alignment	not modelled	9.0	15	Fold: Indigoidine synthase A-like Superfamily: Indigoidine synthase A-like Family: Indigoidine synthase A-like
84	d1ltza	Alignment	not modelled	9.0	25	Fold: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Superfamily: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains Family: Aromatic aminoacid monooxygenases, catalytic and oligomerization domains
85	c3c24A	Alignment	not modelled	9.0	12	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of a putative oxidoreductase (yp_511008.1) from2 jannaschia sp. ccs1 at 1.62 a resolution
86	c2jfqa	Alignment	not modelled	8.8	24	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of staphylococcus aureus glutamate2 racemase in complex with d-glutamate
87	d2voua2	Alignment	not modelled	8.8	12	Fold: FAD-linked reductases, C-terminal domain Superfamily: FAD-linked reductases, C-terminal domain Family: PHBH-like
88	c1dipA	Alignment	not modelled	8.8	22	PDB header: acetylation Chain: A: PDB Molecule: delta-sleep-inducing peptide immunoreactive PDBTitle: the solution structure of porcine delta-sleep-inducing2 peptide immunoreactive peptide, nmr, 10 structures
89	c3m1eA	Alignment	not modelled	8.7	11	PDB header: transcription regulator Chain: A: PDB Molecule: ith-type transcriptional regulator benm; PDBTitle: crystal structure of benm_dbd
90	c2gzmB	Alignment	not modelled	8.2	21	PDB header: isomerase Chain: B: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of the glutamate racemase from bacillus2 anthracis
91	c1vi2B	Alignment	not modelled	8.1	15	PDB header: oxidoreductase Chain: B: PDB Molecule: shikimate 5-dehydrogenase 2; PDBTitle: crystal structure of shikimate-5-dehydrogenase with nad
92	c3lq9B	Alignment	not modelled	7.7	20	PDB header: signaling protein Chain: B: PDB Molecule: dna-damage-inducible transcript 4 protein; PDBTitle: crystal strucure of human redd1, a hypoxia-induced regulator2 of mtor
93	d1sxjb1	Alignment	not modelled	7.6	14	Fold: post-AAA+ oligomerization domain-like Superfamily: post-AAA+ oligomerization domain-like Family: DNA polymerase III clamp loader subunits, C-terminal domain
94	d1v5pa	Alignment	not modelled	7.5	50	Fold: PH domain-like barrel Superfamily: PH domain-like Family: Pleckstrin-homology domain (PH domain)
95	c3eq5G	Alignment	not modelled	7.3	29	PDB header: signaling protein Chain: G: PDB Molecule: ski-like protein; PDBTitle: crystal structure of fragment 137 to 238 of the human ski-like protein
96	d1q8ha	Alignment	not modelled	7.3	29	Fold: GLA-domain Superfamily: GLA-domain Family: GLA-domain
97	c1q8hA	Alignment	not modelled	7.3	29	PDB header: metal binding protein Chain: A: PDB Molecule: osteocalcin; PDBTitle: crystal structure of porcine osteocalcin
98	c2p9xB	Alignment	not modelled	7.3	25	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein ph0832; PDBTitle: crystal structure of ph0832 from pyrococcus horikoshii ot3
99	c2v27A	Alignment	not modelled	7.3	21	PDB header: oxidoreductase Chain: A: PDB Molecule: phenylalanine hydroxylase; PDBTitle: structure of the cold active phenylalanine hydroxylase from2 colwellia psychrerythraea 34h