







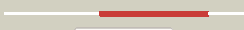









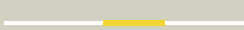
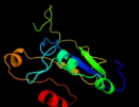


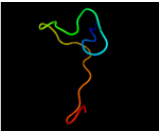
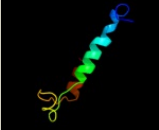




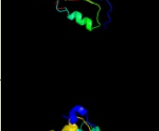




Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P26365
Date	Thu Jan 5 11:42:53 GMT 2012
Unique Job ID	9c86d3df803e8927

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3ne8A_	 Alignment		100.0	33	PDB header: hydrolase Chain: A: PDB Molecule: n-acetylmuramoyl-l-alanine amidase; PDBTitle: the crystal structure of a domain from n-acetylmuramoyl-l-alanine2 amidase of bartonella henselae str. houston-1
2	dljwqa_	 Alignment		100.0	36	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: N-acetylmuramoyl-L-alanine amidase-like
3	c1xovA_	 Alignment		100.0	19	PDB header: hydrolase Chain: A: PDB Molecule: ply protein; PDBTitle: the crystal structure of the listeria monocytogenes bacteriophage psa2 endolysin plypsa
4	c3czxA_	 Alignment		100.0	20	PDB header: hydrolase Chain: A: PDB Molecule: putative n-acetylmuramoyl-l-alanine amidase; PDBTitle: the crystal structure of the putative n-acetylmuramoyl-l-2 alanine amidase from neisseria meningitidis
5	d1xova2	 Alignment		100.0	20	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: N-acetylmuramoyl-L-alanine amidase-like
6	c3qayC_	 Alignment		100.0	22	PDB header: lyase Chain: C: PDB Molecule: endolysin; PDBTitle: catalytic domain of cd27l endolysin targeting clostridia difficile
7	d2gfa1	 Alignment		89.2	32	Fold: Phosphorylase/hydrolase-like Superfamily: AF0625-like Family: AF0625-like
8	c2gfaC_	 Alignment		88.5	36	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: upf0204 protein ph0006; PDBTitle: structure of protein of unknown function ph0006 from pyrococcus2 horikoshii
9	d1yqea1	 Alignment		86.4	29	Fold: Phosphorylase/hydrolase-like Superfamily: AF0625-like Family: AF0625-like
10	c2qvpC_	 Alignment		77.2	19	PDB header: hydrolase Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a putative metallopeptidase (sama_0725) from2 shewanella amazonensis sb2b at 2.00 a resolution
11	c1lwwpA_	 Alignment		54.9	31	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ttha0636; PDBTitle: crystal structure of ttk003001694 from thermus thermophilus2 hb8

12	c3fs2A_	Alignment		53.6	36	PDB header: transferase Chain: A: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase; PDBTitle: crystal structure of 2-dehydro-3-deoxyphosphooctonate2 aldolase from bruciella melitensis at 1.85a resolution
13	d1fx0b1	Alignment		49.4	19	Fold: Left-handed superhelix Superfamily: C-terminal domain of alpha and beta subunits of F1 ATP synthase Family: C-terminal domain of alpha and beta subunits of F1 ATP synthase
14	c1c4gB_	Alignment		49.1	17	PDB header: transferase Chain: B: PDB Molecule: protein (alpha-d-glucose 1-phosphate PDBTitle: phosphoglucomutase vanadate based transition state analog2 complex
15	c2fuvB_	Alignment		44.9	21	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucomutase; PDBTitle: phosphoglucomutase from salmonella typhimurium.
16	d1nyra1	Alignment		41.3	14	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
17	c3i3wB_	Alignment		41.2	19	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucosamine mutase; PDBTitle: structure of a phosphoglucosamine mutase from francisella tularensis
18	c3k2kA_	Alignment		40.5	14	PDB header: hydrolase Chain: A: PDB Molecule: putative carboxypeptidase; PDBTitle: crystal structure of putative carboxypeptidase (yp_103406.1) from2 burkholderia mallei atcc 23344 at 2.49 a resolution
19	d1kfia2	Alignment		38.7	21	Fold: Phosphoglucomutase, first 3 domains Superfamily: Phosphoglucomutase, first 3 domains Family: Phosphoglucomutase, first 3 domains
20	d1txka1	Alignment		35.4	10	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
21	d2b3ya2	Alignment	not modelled	34.3	16	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
22	c3l2nA_	Alignment	not modelled	32.8	16	PDB header: hydrolase Chain: A: PDB Molecule: peptidase m14, carboxypeptidase a; PDBTitle: crystal structure of putative carboxypeptidase a (yp_562911.1) from2 shewanella denitrificans os-217 at 2.39 a resolution
23	c3t4cD_	Alignment	not modelled	32.6	39	PDB header: transferase Chain: D: PDB Molecule: 2-dehydro-3-deoxyphosphooctonate aldolase 1; PDBTitle: crystal structure of 2-dehydro-3-deoxyphosphooctonate aldolase from2 burkholderia ambifaria
24	c1nj2A_	Alignment	not modelled	31.5	18	PDB header: ligase Chain: A: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from methanothermobacter2 thermotrophicus
25	c1z65A_	Alignment	not modelled	29.8	41	PDB header: unknown function Chain: A: PDB Molecule: prion-like protein doppel; PDBTitle: mouse doppel 1-30 peptide
26	d1nj8a1	Alignment	not modelled	29.6	10	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
27	d1acoa2	Alignment	not modelled	28.7	22	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
28	d1skye1	Alignment	not modelled	28.0	13	Fold: Left-handed superhelix Superfamily: C-terminal domain of alpha and beta subunits of F1 ATP synthase Family: C-terminal domain of alpha and beta subunits of F1 ATP synthase

29	dlad1a	Alignment	not modelled	25.8	50	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
30	c2f7IA	Alignment	not modelled	25.7	16	PDB header: isomerase Chain: A: PDB Molecule: 455aa long hypothetical phospho-sugar mutase; PDBTitle: crystal structure of sulfolobus tokodaii2 phosphomannomutase/phosphoglucosomutase
31	c5acnA	Alignment	not modelled	25.1	22	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
32	c2ronA	Alignment	not modelled	24.6	25	PDB header: hydrolase Chain: A: PDB Molecule: surfactin synthetase thioesterase subunit; PDBTitle: the external thioesterase of the surfactin-synthetase
33	dlnj1a1	Alignment	not modelled	24.4	19	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
34	dlqm4a1	Alignment	not modelled	24.1	10	Fold: S-adenosylmethionine synthetase Superfamily: S-adenosylmethionine synthetase Family: S-adenosylmethionine synthetase
35	c2vf7B	Alignment	not modelled	23.4	30	PDB header: dna-binding protein Chain: B: PDB Molecule: excinuclease abc, subunit a.; PDBTitle: crystal structure of uvra2 from deinococcus radiodurans
36	c3l80A	Alignment	not modelled	22.8	17	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein smu.1393c; PDBTitle: crystal structure of smu.1393c from streptococcus mutans ua159
37	c1k8wA	Alignment	not modelled	22.8	64	PDB header: lyase/rna Chain: A: PDB Molecule: trna pseudouridine synthase b; PDBTitle: crystal structure of the e. coli pseudouridine synthase2 trub bound to a t stem-loop rna
38	c2ae3A	Alignment	not modelled	22.6	18	PDB header: hydrolase Chain: A: PDB Molecule: glutaryl 7-aminocephalosporanic acid acylase; PDBTitle: glutaryl 7-aminocephalosporanic acid acylase: mutational study of 2 activation mechanism
39	c3nh8A	Alignment	not modelled	22.2	16	PDB header: hydrolase Chain: A: PDB Molecule: aspartoacylase-2; PDBTitle: crystal structure of murine aminoacylase 3 in complex with n-acetyl-s-2 1,2-dichlorovinyl-l-cysteine
40	dlb74a1	Alignment	not modelled	22.1	27	Fold: ATC-like Superfamily: Aspartate/glutamate racemase Family: Aspartate/glutamate racemase
41	dlvw6a1	Alignment	not modelled	21.8	14	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: AstE/AspA-like
42	c3bghB	Alignment	not modelled	21.6	16	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative neuraminylactose-binding hemagglutinin homolog; PDBTitle: crystal structure of putative neuraminylactose-binding hemagglutinin2 homolog from helicobacter pylori
43	dlmxaa1	Alignment	not modelled	21.3	13	Fold: S-adenosylmethionine synthetase Superfamily: S-adenosylmethionine synthetase Family: S-adenosylmethionine synthetase
44	c1kfiA	Alignment	not modelled	20.9	21	PDB header: isomerase Chain: A: PDB Molecule: phosphoglucosomutase 1; PDBTitle: crystal structure of the exocytosis-sensitive2 phosphoprotein, pp63/parafusin (phosphoglucosomutase) from3 paramecium
45	c2b3yB	Alignment	not modelled	20.8	16	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)
46	c2y5sA	Alignment	not modelled	20.6	50	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase; PDBTitle: crystal structure of burkholderia cenocepacia dihydropteroate2 synthase complexed with 7,8-dihydropteroate.
47	c3pdkB	Alignment	not modelled	20.3	24	PDB header: isomerase Chain: B: PDB Molecule: phosphoglucosamine mutase; PDBTitle: crystal structure of phosphoglucosamine mutase from b. anthracis
48	d2p02a1	Alignment	not modelled	19.9	8	Fold: S-adenosylmethionine synthetase Superfamily: S-adenosylmethionine synthetase Family: S-adenosylmethionine synthetase
49	d2ey4a2	Alignment	not modelled	19.6	67	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: Pseudouridine synthase II TruB
50	dlp5dx2	Alignment	not modelled	19.2	17	Fold: Phosphoglucosomutase, first 3 domains Superfamily: Phosphoglucosomutase, first 3 domains Family: Phosphoglucosomutase, first 3 domains
51	c1ze2B	Alignment	not modelled	18.6	67	PDB header: lyase/rna Chain: B: PDB Molecule: trna pseudouridine synthase b; PDBTitle: conformational change of pseudouridine 55 synthase upon its2 association with rna substrate
52	c2e85B	Alignment	not modelled	18.5	30	PDB header: hydrolase Chain: B: PDB Molecule: hydrogenase 3 maturation protease; PDBTitle: crystal structure of the hydrogenase 3 maturation protease
53	c2dzaA	Alignment	not modelled	18.4	38	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase; PDBTitle: crystal structure of dihydropteroate synthase from thermus2 thermophilus hb8 in complex with 4-aminobenzoate

54	d2fsja1	Alignment	not modelled	18.3	22	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Ta0583-like
55	d2g4ca1	Alignment	not modelled	18.0	11	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
56	d1joga	Alignment	not modelled	17.8	25	Fold: Four-helical up-and-down bundle Superfamily: Nucleotidyltransferase substrate binding subunit/domain Family: Family 1 bi-partite nucleotidyltransferase subunit
57	c2ygrD	Alignment	not modelled	17.4	26	PDB header: hydrolase Chain: D: PDB Molecule: uvrabc system protein a; PDBTitle: mycobacterium tuberculosis uvra
58	d1qf6a1	Alignment	not modelled	17.3	4	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
59	d1g5ha1	Alignment	not modelled	16.9	11	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
60	c1u83A	Alignment	not modelled	16.8	24	PDB header: lyase Chain: A: PDB Molecule: phosphosulfolactate synthase; PDBTitle: psl synthase from bacillus subtilis
61	d1u83a	Alignment	not modelled	16.8	24	Fold: TIM beta/alpha-barrel Superfamily: (2r)-phospho-3-sulfolactate synthase ComA Family: (2r)-phospho-3-sulfolactate synthase ComA
62	c3ibtA	Alignment	not modelled	16.8	15	PDB header: oxidoreductase Chain: A: PDB Molecule: 1h-3-hydroxy-4-oxoquinoline 2,4-dioxygenase; PDBTitle: structure of 1h-3-hydroxy-4-oxoquinoline 2,4-dioxygenase (qdo)
63	d2bodx1	Alignment	not modelled	16.7	36	Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases Family: Glycosyl hydrolases family 6, cellulases
64	d1sgva2	Alignment	not modelled	16.5	58	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: Pseudouridine synthase II TruB
65	c1b74A	Alignment	not modelled	16.4	27	PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: glutamate racemase from aquifex pyrophilus
66	c2vefB	Alignment	not modelled	16.0	43	PDB header: transferase Chain: B: PDB Molecule: dihydropteroate synthase; PDBTitle: dihydropteroate synthase from streptococcus pneumoniae
67	c2vp8A	Alignment	not modelled	15.9	38	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase 2; PDBTitle: structure of mycobacterium tuberculosis rv1207
68	d1cr5a2	Alignment	not modelled	15.9	20	Fold: Cdc48 domain 2-like Superfamily: Cdc48 domain 2-like Family: Cdc48 domain 2-like
69	d1ccwa	Alignment	not modelled	15.8	17	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
70	d1r3ea2	Alignment	not modelled	15.8	67	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: Pseudouridine synthase II TruB
71	d2apoa2	Alignment	not modelled	15.6	67	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: Pseudouridine synthase II TruB
72	c1zcoA	Alignment	not modelled	15.4	32	PDB header: lyase Chain: A: PDB Molecule: 2-dehydro-3-deoxyphosphoheptonate aldolase; PDBTitle: crystal structure of pyrococcus furiosus 3-deoxy-d-arabino-2 heptulosonate 7-phosphate synthase
73	d1k8wa5	Alignment	not modelled	15.3	64	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: Pseudouridine synthase II TruB
74	d1eyea	Alignment	not modelled	15.2	38	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
75	d1c4xa	Alignment	not modelled	15.2	17	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Carbon-carbon bond hydrolase
76	c2jfoB	Alignment	not modelled	14.9	23	PDB header: isomerase Chain: B: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of enterococcus faecalis glutamate2 racemase in complex with d- and l-glutamate
77	c3a64A	Alignment	not modelled	14.8	54	PDB header: hydrolase Chain: A: PDB Molecule: cellulohydrolase; PDBTitle: crystal structure of ccel6c, a glycoside hydrolase family 62 enzyme, from coprinopsis cinerea
78	c1bx2A	Alignment	not modelled	14.6	50	PDB header: transferase Chain: A: PDB Molecule: dhps, dihydropteroate synthase; PDBTitle: dihydropteroate synthetase, with bound inhibitor manic, from bacillus2 anthracis
79	d1bx2a	Alignment	not modelled	14.6	50	Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Dihydropteroate synthetase
80	c1y80A	Alignment	not modelled	14.6	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: predicted cobalamin binding protein; PDBTitle: structure of a corrinoid (factor iim)-binding protein

					from2 moorella thermoacetica
81	d1wu7a1	Alignment	not modelled	14.4	13 Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
82	c3uaiA	Alignment	not modelled	14.4	50 PDB header: isomerase/chaperone Chain: A: PDB Molecule: h/aca ribonucleoprotein complex subunit 4; PDBTitle: structure of the shq1-cbf5-nop10-gar1 complex from saccharomyces2 cerevisiae
83	c2dakA	Alignment	not modelled	14.3	17 PDB header: hydrolase Chain: A: PDB Molecule: ubiquitin carboxyl-terminal hydrolase 5; PDBTitle: solution structure of the second uba domain in the human2 ubiquitin specific protease 5 (isopeptidase 5)
84	d1dysa	Alignment	not modelled	13.7	31 Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases Family: Glycosyl hydrolases family 6, cellulases
85	c3na6A	Alignment	not modelled	13.7	10 PDB header: hydrolase Chain: A: PDB Molecule: succinyl glutamate desuccinylase/aspartoacylase; PDBTitle: crystal structure of a succinylglutamate desuccinylase (tm1040_2694)2 from silicibacter sp. tm1040 at 2.00 a resolution
86	c2gx8B	Alignment	not modelled	13.6	19 PDB header: structural genomics, unknown function Chain: B: PDB Molecule: nif3-related protein; PDBTitle: the crystal stucture of bacillus cereus protein related to nif3
87	d3bofa1	Alignment	not modelled	13.6	18 Fold: TIM beta/alpha-barrel Superfamily: Dihydropteroate synthetase-like Family: Methyltetrahydrofolate-utilizing methyltransferases
88	c2ey4A	Alignment	not modelled	13.6	64 PDB header: isomerase/biosynthetic protein Chain: A: PDB Molecule: probable trna pseudouridine synthase b; PDBTitle: crystal structure of a cbf5-nop10-gar1 complex
89	d1qjwa	Alignment	not modelled	13.4	38 Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases Family: Glycosyl hydrolases family 6, cellulases
90	c2daiA	Alignment	not modelled	12.7	26 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ubiquitin associated domain containing 1; PDBTitle: solution structure of the first uba domain in the human2 ubiquitin associated domain containing 1 (ubadc1)
91	c3r1jB	Alignment	not modelled	12.5	20 PDB header: oxidoreductase Chain: B: PDB Molecule: alpha-ketoglutarate-dependent taurine dioxygenase; PDBTitle: crystal structure of alpha-ketoglutarate-dependent taurine dioxygenase2 from mycobacterium avium, native form
92	d3pmga2	Alignment	not modelled	12.5	15 Fold: Phosphoglucomutase, first 3 domains Superfamily: Phosphoglucomutase, first 3 domains Family: Phosphoglucomutase, first 3 domains
93	c2apoA	Alignment	not modelled	12.4	67 PDB header: isomerase/rna binding protein Chain: A: PDB Molecule: probable trna pseudouridine synthase b; PDBTitle: crystal structure of the methanococcus jannaschii cbf52 nop10 complex
94	d1uoza	Alignment	not modelled	12.4	25 Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases Family: Glycosyl hydrolases family 6, cellulases
95	d1ifya	Alignment	not modelled	12.0	18 Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain
96	c2jfqA	Alignment	not modelled	11.9	29 PDB header: isomerase Chain: A: PDB Molecule: glutamate racemase; PDBTitle: crystal structure of staphylococcus aureus glutamate2 racemase in complex with d-glutamate
97	d1icxa	Alignment	not modelled	11.9	30 Fold: TBP-like Superfamily: Bet v1-like Family: Pathogenesis-related protein 10 (PR10)-like
98	d1fmfa	Alignment	not modelled	11.8	21 Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
99	d1oc7a	Alignment	not modelled	11.8	36 Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases Family: Glycosyl hydrolases family 6, cellulases