










































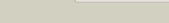
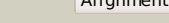

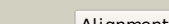




Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P10100
Date	Thu Jan 5 11:32:01 GMT 2012
Unique Job ID	146d326858d897b4

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1x60A_	 Alignment		99.6	26	PDB header: hydrolase Chain: A: PDB Molecule: sporulation-specific n-acetylmuramoyl-l-alanine PDBTitle: solution structure of the peptidoglycan binding domain of 2 b. subtilis cell wall lytic enzyme cwlc
2	d1utaa_	 Alignment		99.5	24	Fold: Ferredoxin-like Superfamily: Sporulation related repeat Family: Sporulation related repeat
3	c3d30A_	 Alignment		98.8	19	PDB header: peptidoglycan-binding protein Chain: A: PDB Molecule: expansin like protein; PDBTitle: structure of an expansin like protein from bacillus subtilis at 1.9a2 resolution
4	d1n10a2	 Alignment		97.7	15	Fold: Double psi beta-barrel Superfamily: Barwin-like endoglucanases Family: Pollen allergen PHL P 1 N-terminal domain
5	c1n10A_	 Alignment		97.2	15	PDB header: allergen Chain: A: PDB Molecule: pollen allergen phl p 1; PDBTitle: crystal structure of phl p 1, a major timothy grass pollen allergen
6	c2hczX_	 Alignment		96.2	15	PDB header: allergen Chain: X: PDB Molecule: beta-expansin 1a; PDBTitle: crystal structure of expb1 (zea m 1), a beta-expansin and group-12 pollen allergen from maize
7	d1bw3a_	 Alignment		86.3	22	Fold: Double psi beta-barrel Superfamily: Barwin-like endoglucanases Family: Barwin
8	d1wc2a1	 Alignment		85.9	11	Fold: Double psi beta-barrel Superfamily: Barwin-like endoglucanases Family: Eng V-like
9	d1grja2	 Alignment		74.5	17	Fold: FKBP-like Superfamily: FKBP-like Family: GreA transcript cleavage factor, C-terminal domain
10	c3bmbB_	 Alignment		73.0	14	PDB header: rna binding protein Chain: B: PDB Molecule: regulator of nucleoside diphosphate kinase; PDBTitle: crystal structure of a new rna polymerase interacting2 protein
11	d1w2za3	 Alignment		70.7	20	Fold: Cystatin-like Superfamily: Amine oxidase N-terminal region Family: Amine oxidase N-terminal region

12	c1grjA_	 Alignment		60.1	16	PDB header: transcription regulation Chain: A: PDB Molecule: greA protein; PDBTitle: greA transcript cleavage factor from escherichia coli
13	d1vqq1	 Alignment		45.0	20	Fold: SH3-like barrel Superfamily: Translation proteins SH3-like domain Family: Ribosomal proteins L24p and L21e
14	d2f23a2	 Alignment		38.9	11	Fold: FKBP-like Superfamily: FKBP-like Family: GreA transcript cleavage factor, C-terminal domain
15	c3fuyC_	 Alignment		37.8	33	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: putative integron gene cassette protein; PDBTitle: structure from the mobile metagenome of cole harbour salt2 marsh: integron cassette protein hfx_cass1
16	d2c0ra1	 Alignment		37.8	9	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
17	c2pn0D_	 Alignment		37.4	7	PDB header: transcription Chain: D: PDB Molecule: prokaryotic transcription elongation factor PDBTitle: prokaryotic transcription elongation factor grea/greb from2 nitrosomonas europaea
18	c3caiA_	 Alignment		37.2	20	PDB header: transferase Chain: A: PDB Molecule: possible aminotransferase; PDBTitle: crystal structure of mycobacterium tuberculosis rv3778c2 protein
19	d1bs0a_	 Alignment		36.7	24	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
20	d1w6ga3	 Alignment		35.1	15	Fold: Cystatin-like Superfamily: Amine oxidase N-terminal region Family: Amine oxidase N-terminal region
21	d1m32a_	 Alignment	not modelled	33.8	14	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
22	c2p4vA_	 Alignment	not modelled	32.3	18	PDB header: transcription Chain: A: PDB Molecule: transcription elongation factor greb; PDBTitle: crystal structure of the transcript cleavage factor, greb2 at 2.6a resolution
23	d2etna2	 Alignment	not modelled	31.2	13	Fold: FKBP-like Superfamily: FKBP-like Family: GreA transcript cleavage factor, C-terminal domain
24	c3efyB_	 Alignment	not modelled	26.4	25	PDB header: cell cycle Chain: B: PDB Molecule: cif (cell cycle inhibiting factor); PDBTitle: structure of the cyclomodulin cif from pathogenic2 escherichia coli
25	c2yrrA_	 Alignment	not modelled	24.7	19	PDB header: transferase Chain: A: PDB Molecule: aminotransferase, class v; PDBTitle: hypothetical alanine aminotransferase (tth0173) from thermus2 thermophilus hb8
26	d1v72a1	 Alignment	not modelled	24.6	9	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: AAT-like
27	c3gqjA_	 Alignment	not modelled	22.4	25	PDB header: unknown function Chain: A: PDB Molecule: cell inhibiting factor (cif); PDBTitle: crystal structure of cell inhibiting factor (cif) from photorhabdus2 luminescens
28	c3m3gA_	 Alignment	not modelled	22.3	20	PDB header: polysaccharide-binding protein Chain: A: PDB Molecule: ep1 protein; PDBTitle: crystal structure of sm1, an elicitor of plant defence responses from2 trichoderma virens.
						PDB header: transcription

29	c2etnA_	Alignment	not modelled	22.2	13	Chain: A: PDB Molecule: anti-cleavage anti-grea transcription factor PDBTitle: crystal structure of thermus aquaticus gfh1
30	c3eitB_	Alignment	not modelled	21.9	32	PDB header: unknown function Chain: B: PDB Molecule: putative atp/gtp binding protein; PDBTitle: the 2.6 angstrom crystal structure of chbp, the cif homologue from2 burkholderia pseudomallei
31	d1qz9a_	Alignment	not modelled	21.7	17	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
32	c2fyfB_	Alignment	not modelled	20.9	15	PDB header: transferase Chain: B: PDB Molecule: phosphoserine aminotransferase; PDBTitle: structure of a putative phosphoserine aminotransferase from2 mycobacterium tuberculosis
33	d1m6sa_	Alignment	not modelled	20.7	11	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: AAT-like
34	d2jioa1	Alignment	not modelled	20.6	11	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
35	d1t3ia_	Alignment	not modelled	20.6	20	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
36	d2f8ja1	Alignment	not modelled	20.0	18	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: AAT-like
37	d1g8ka1	Alignment	not modelled	19.8	11	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
38	c2huuA_	Alignment	not modelled	19.5	24	PDB header: transferase Chain: A: PDB Molecule: alanine glyoxylate aminotransferase; PDBTitle: crystal structure of aedes aegypti alanine glyoxylate2 aminotransferase in complex with alanine
39	d1ogya1	Alignment	not modelled	18.9	15	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
40	c3iz6Y_	Alignment	not modelled	18.2	23	PDB header: ribosome Chain: Y: PDB Molecule: 40s ribosomal protein s28 (s28e); PDBTitle: localization of the small subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
41	d1vq3a_	Alignment	not modelled	18.0	15	Fold: PurS-like Superfamily: PurS-like Family: PurS subunit of FGAM synthetase
42	c3hqtB_	Alignment	not modelled	17.7	9	PDB header: transferase Chain: B: PDB Molecule: cai-1 autoinducer synthase; PDBTitle: plp-dependent acyl-coa transferase cqsa
43	c3f9tB_	Alignment	not modelled	16.8	13	PDB header: lyase Chain: B: PDB Molecule: l-tyrosine decarboxylase mfna; PDBTitle: crystal structure of l-tyrosine decarboxylase mfna (ec 4.1.1.25)2 (np_247014.1) from methanococcus jannaschii at 2.11 a resolution
44	d1j5ya2	Alignment	not modelled	16.6	11	Fold: HPr-like Superfamily: Putative transcriptional regulator TM1602, C-terminal domain Family: Putative transcriptional regulator TM1602, C-terminal domain
45	c2yx5A_	Alignment	not modelled	16.1	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0062 protein mj1593; PDBTitle: crystal structure of methanocaldococcus jannaschii purs, one of the2 subunits of formylglycinamide ribonucleotide amidotransferase in the3 purine biosynthetic pathway
46	c2zw2B_	Alignment	not modelled	15.3	18	PDB header: ligase Chain: B: PDB Molecule: putative uncharacterized protein sts178; PDBTitle: crystal structure of formylglycinamide ribonucleotide amidotransferase2 iii from sulfolobus tokodaii (stpurs)
47	c3hyjD_	Alignment	not modelled	15.1	4	PDB header: transcription regulator Chain: D: PDB Molecule: protein duf199/whia; PDBTitle: crystal structure of the n-terminal laglidadg domain of duf199/whia
48	c3eh7A_	Alignment	not modelled	14.8	22	PDB header: transferase Chain: A: PDB Molecule: 4-hydroxybutyrate coa-transferase; PDBTitle: the structure of a putative 4-hydroxybutyrate coa-transferase from2 porphyromonas gingivalis w83
49	d1bjna_	Alignment	not modelled	13.5	8	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
50	d1iuga_	Alignment	not modelled	13.0	16	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
51	d1eg5a_	Alignment	not modelled	12.5	12	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
52	c2eefA_	Alignment	not modelled	12.2	24	PDB header: sugar binding protein Chain: A: PDB Molecule: protein phosphatase 1, regulatory (inhibitor) PDBTitle: solution structure of the cbm_21 domain from human protein2 phosphatase 1, regulatory (inhibitor) subunit 3b
53	d1elua_	Alignment	not modelled	12.1	17	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
54	c3seeA_	Alignment	not modelled	11.9	13	PDB header: sugar binding protein Chain: A: PDB Molecule: hypothetical sugar binding protein; PDBTitle: crystal structure of a hypothetical sugar binding protein

						(bt_4411)2 from bacteroides thetaiotaomicron vpi-5482 at 1.25 a resolution
55	d1oj4a2	Alignment	not modelled	11.4	14	Fold: Ferredoxin-like Superfamily: GHMP Kinase, C-terminal domain Family: 4-(cytidine 5'-di-phospho)-2C-methyl-D-erythritol kinase IspE
56	c3f0hA	Alignment	not modelled	11.4	12	PDB header: transferase Chain: A: PDB Molecule: aminotransferase; PDBTitle: crystal structure of aminotransferase (rer070207000802) from2 eubacterium rectale at 1.70 a resolution
57	d1h0ca	Alignment	not modelled	11.3	20	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
58	c3qm2A	Alignment	not modelled	11.2	5	PDB header: transferase Chain: A: PDB Molecule: phosphoserine aminotransferase; PDBTitle: 2.25 angstrom crystal structure of phosphoserine aminotransferase2 (serc) from salmonella enterica subsp. enterica serovar typhimurium
59	c2yujA	Alignment	not modelled	11.2	14	PDB header: protein binding Chain: A: PDB Molecule: ubiquitin fusion degradation 1-like; PDBTitle: solution structure of human ubiquitin fusion degradation2 protein 1 homolog ufd1
60	c3mazA	Alignment	not modelled	11.0	33	PDB header: signaling protein Chain: A: PDB Molecule: signal-transducing adaptor protein 1; PDBTitle: crystal structure of the human brdg1/stap-1 sh2 domain in complex with2 the ntal ptyr136 peptide
61	d1uh6a	Alignment	not modelled	11.0	60	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ubiquitin-related
62	d1uasa1	Alignment	not modelled	10.9	23	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: alpha-Amylases, C-terminal beta-sheet domain
63	c3p04B	Alignment	not modelled	10.8	12	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
64	d1y0ya2	Alignment	not modelled	10.4	16	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: Bacterial dinuclear zinc exopeptidases
65	c2l9vA	Alignment	not modelled	10.3	22	PDB header: rna binding protein Chain: A: PDB Molecule: pre-mrna-processing factor 40 homolog a; PDBTitle: nmr structure of the ff domain l24a mutant's folding transition state
66	d1sddb2	Alignment	not modelled	10.0	18	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multidomain cupredoxins
67	c3iz5U	Alignment	not modelled	9.9	33	PDB header: ribosome Chain: U: PDB Molecule: 60s ribosomal protein l21 (l21e); PDBTitle: localization of the large subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
68	d1vpra1	Alignment	not modelled	9.9	50	Fold: Lipocalins Superfamily: Lipocalins Family: Dinoflagellate luciferase repeat
69	c2hzpA	Alignment	not modelled	9.8	17	PDB header: hydrolase Chain: A: PDB Molecule: kynureninase; PDBTitle: crystal structure of homo sapiens kynureninase
70	d2gova1	Alignment	not modelled	9.6	20	Fold: Probable bacterial effector-binding domain Superfamily: Probable bacterial effector-binding domain Family: SOUL heme-binding protein
71	c3p04A	Alignment	not modelled	9.6	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
72	c3bpqD	Alignment	not modelled	9.4	23	PDB header: toxin Chain: D: PDB Molecule: toxin rele3; PDBTitle: crystal structure of relb-rele antitoxin-toxin complex from2 methanococcus jannaschii
73	c3e77A	Alignment	not modelled	9.4	10	PDB header: transferase Chain: A: PDB Molecule: phosphoserine aminotransferase; PDBTitle: human phosphoserine aminotransferase in complex with plp
74	c2ivwA	Alignment	not modelled	9.4	24	PDB header: lipoprotein Chain: A: PDB Molecule: pilp pilot protein; PDBTitle: the solution structure of a domain from the neisseria2 meningitidis pilp pilot protein.
75	d1vjoa	Alignment	not modelled	9.3	20	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
76	d2iv2x1	Alignment	not modelled	8.9	14	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Formate dehydrogenase/DMSO reductase, C-terminal domain
77	d2exda1	Alignment	not modelled	8.8	12	Fold: OB-fold Superfamily: NfeD domain-like Family: NfeD domain-like
78	c2dr1A	Alignment	not modelled	8.8	8	PDB header: transferase Chain: A: PDB Molecule: 386aa long hypothetical serine aminotransferase; PDBTitle: crystal structure of the ph1308 protein from pyrococcus horikoshii ot3
79	c3h14A	Alignment	not modelled	8.7	16	PDB header: transferase Chain: A: PDB Molecule: aminotransferase, classes i and ii; PDBTitle: crystal structure of a putative aminotransferase from silicibacter2 pomeroyi PDB header: transferase

80	c3cq6E_	Alignment	not modelled	8.7	21	Chain: E: PDB Molecule: histidinol-phosphate aminotransferase; PDBTitle: histidinol-phosphate aminotransferase from corynebacterium2 glutamicum holo-form (plp covalently bound)
81	c2w8wA_	Alignment	not modelled	8.6	18	PDB header: transferase Chain: A: PDB Molecule: serine palmitoyltransferase; PDBTitle: n100y spt with plp-ser
82	c2xx7B_	Alignment	not modelled	8.6	22	PDB header: transport protein Chain: B: PDB Molecule: glutamate receptor 2; PDBTitle: crystal structure of 1-(4-(1-pyrrolidinylcarbonyl)phenyl)-3-2 (trifluoromethyl)-4,5,6,7-tetrahydro-1h-indazole in complex with3 the ligand binding domain of the rat glua2 receptor and glutamate4 at 2.2a resolution.
83	c3ffrA_	Alignment	not modelled	8.6	18	PDB header: transferase Chain: A: PDB Molecule: phosphoserine aminotransferase serc; PDBTitle: crystal structure of a phosphoserine aminotransferase serc (chu_0995)2 from cytophaga hutchinsonii atcc 33406 at 1.75 a resolution
84	d1s50a1	Alignment	not modelled	8.5	28	Fold: Periplasmic binding protein-like II Superfamily: Periplasmic binding protein-like II Family: Phosphate binding protein-like
85	c3a2bA_	Alignment	not modelled	8.4	7	PDB header: transferase Chain: A: PDB Molecule: serine palmitoyltransferase; PDBTitle: crystal structure of serine palmitoyltransferase from sphingobacterium2 multivorum with substrate l-serine
86	c4a1aP_	Alignment	not modelled	8.4	27	PDB header: ribosome Chain: P: PDB Molecule: 60s ribosomal protein l21; PDBTitle: t thermophila 60s ribosomal subunit in complex with2 initiation factor 6. this file contains 5s rrna,3 5.8s rrna and proteins of molecule 3.
87	d1xjva2	Alignment	not modelled	8.3	35	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB
88	d1qpga_	Alignment	not modelled	8.3	17	Fold: Phosphoglycerate kinase Superfamily: Phosphoglycerate kinase Family: Phosphoglycerate kinase
89	c3bd1A_	Alignment	not modelled	8.1	11	PDB header: hydrolase Chain: A: PDB Molecule: staphylococcal nuclease domain-containing PDBTitle: crystal structure of a truncated human tudor-sn
90	c1zc1A_	Alignment	not modelled	8.0	14	PDB header: protein turnover Chain: A: PDB Molecule: ubiquitin fusion degradation protein 1; PDBTitle: ufd1 exhibits the aaa-atpase fold with two distinct2 ubiquitin interaction sites
91	c1wwtA_	Alignment	not modelled	7.9	25	PDB header: ligase Chain: A: PDB Molecule: threonyl-trna synthetase, cytoplasmic; PDBTitle: solution structure of the tgs domain from human threonyl-2 trna synthetase
92	c2ordA_	Alignment	not modelled	7.8	8	PDB header: transferase Chain: A: PDB Molecule: acetylornithine aminotransferase; PDBTitle: crystal structure of acetylornithine aminotransferase (ec 2.6.1.11)2 (acoat) (tm1785) from thermotoga maritima at 1.40 a resolution
93	c2el8A_	Alignment	not modelled	7.8	24	PDB header: signaling protein Chain: A: PDB Molecule: signal-transducing adaptor protein 2; PDBTitle: solution structure of the human stap2 sh2 domain
94	d1gtda_	Alignment	not modelled	7.8	11	Fold: PurS-like Superfamily: PurS-like Family: PurS subunit of FGAM synthetase
95	c2v3tA_	Alignment	not modelled	7.7	19	PDB header: receptor Chain: A: PDB Molecule: glutamate receptor delta-2 subunit synonym PDBTitle: structure of the ligand-binding core of the ionotropic2 glutamate receptor-like glurdelta2 in the apo form
96	c1d2fB_	Alignment	not modelled	7.7	9	PDB header: transferase Chain: B: PDB Molecule: maly protein; PDBTitle: x-ray structure of maly from escherichia coli: a pyridoxal-5'-2 phosphate-dependent enzyme acting as a modulator in mal gene3 expression
97	d2h9fa1	Alignment	not modelled	7.5	22	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PA0793-like
98	c3dxvA_	Alignment	not modelled	7.5	15	PDB header: isomerase Chain: A: PDB Molecule: alpha-amino-epsilon-caprolactam racemase; PDBTitle: the crystal structure of alpha-amino-epsilon-caprolactam racemase from2 achromobacter obae
99	d2gkea2	Alignment	not modelled	7.5	28	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: Diaminopimelate epimerase