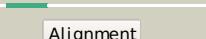
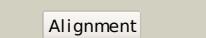
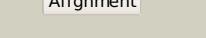
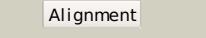
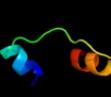
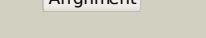
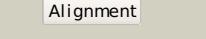


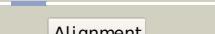
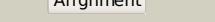
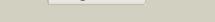
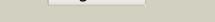
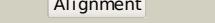
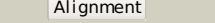
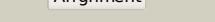
Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P69506
Date	Thu Jan 5 12:11:46 GMT 2012
Unique Job ID	a3c8380d748df140

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2p0nA_			99.7	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein nmb1532; PDBTitle: nmb1532 protein from neisseria meningitidis, unknown function
2	c2k5eA_			99.6	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of putative uncharacterized protein2 gsu1278 from methanocaldococcus jannaschii, northeast structural genomics consortium (nesg) target gsr195
3	c2k53A_			99.5	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: a3dk08 protein; PDBTitle: nmr solution structure of a3dk08 protein from clostridium2 thermocellum: northeast structural genomics consortium3 target cmr9
4	c3caxA_			98.5	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pf0695; PDBTitle: crystal structure of uncharacterized protein pf0695
5	d2fi0a1			97.3	14	Fold: SP0561-like Superfamily: SP0561-like Family: SP0561-like
6	c2awyB_			93.9	14	PDB header: oxygen storage/transport Chain: B: PDB Molecule: hemerythrin-like domain protein dcrh; PDBTitle: met-dcrh-hr
7	d2mhra_			72.7	17	Fold: Four-helical up-and-down bundle Superfamily: Hemerythrin-like Family: Hemerythrin-like
8	d2hmza_			71.7	16	Fold: Four-helical up-and-down bundle Superfamily: Hemerythrin-like Family: Hemerythrin-like
9	d2pt0a1			70.7	16	Fold: (Phosphotyrosine protein) phosphatases II Superfamily: (Phosphotyrosine protein) phosphatases II Family: Myo-inositol hexaphosphate phosphohydrolase (phytase) PhyA
10	d1i4ya_			67.2	14	Fold: Four-helical up-and-down bundle Superfamily: Hemerythrin-like Family: Hemerythrin-like
11	d1hrba_			57.7	16	Fold: Four-helical up-and-down bundle Superfamily: Hemerythrin-like Family: Hemerythrin-like

12	d1qwga			50.4	23	Fold: TIM beta/alpha-barrel Superfamily: (2r)-phospho-3-sulfolactate synthase ComA Family: (2r)-phospho-3-sulfolactate synthase ComA
13	d1r9ja3			48.2	15	Fold: TK C-terminal domain-like Superfamily: TK C-terminal domain-like Family: Transketolase C-terminal domain-like
14	d1ku7a			47.4	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
15	c3o8nA			39.7	27	PDB header: transferase Chain: A: PDB Molecule: 6-phosphofructokinase, muscle type; PDBTitle: structure of phosphofructokinase from rabbit skeletal muscle
16	d1d4ca3			39.0	6	Fold: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Superfamily: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Family: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain
17	c1u83A			38.5	16	PDB header: lyase Chain: A: PDB Molecule: phosphosulfolactate synthase; PDBTitle: psi synthase from bacillus subtilis
18	d1u83a			38.5	16	Fold: TIM beta/alpha-barrel Superfamily: (2r)-phospho-3-sulfolactate synthase ComA Family: (2r)-phospho-3-sulfolactate synthase ComA
19	c2higA			38.0	15	PDB header: transferase Chain: A: PDB Molecule: 6-phospho-1-fructokinase; PDBTitle: crystal structure of phosphofructokinase apoenzyme from trypanosoma2 brucei.
20	d1sm4a2			36.9	34	Fold: Ferrodoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferrodoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
21	c2lfcA		not modelled	35.3	15	PDB header: oxidoreductase Chain: A: PDB Molecule: fumarate reductase, flavoprotein subunit; PDBTitle: solution nmr structure of fumarate reductase flavoprotein subunit from2 lactobacillus plantarum, northeast structural genomics consortium3 target lpr145j
22	d2p5zx2		not modelled	35.0	15	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
23	d1y0pa3		not modelled	35.0	12	Fold: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Superfamily: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Family: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain
24	d4pfka		not modelled	31.6	15	Fold: Phosphofructokinase Superfamily: Phosphofructokinase Family: Phosphofructokinase
25	c3o8oB		not modelled	30.5	23	PDB header: transferase Chain: B: PDB Molecule: 6-phosphofructokinase subunit beta; PDBTitle: structure of phosphofructokinase from saccharomyces cerevisiae
26	c2p9jH		not modelled	29.8	13	PDB header: structural genomics, unknown function Chain: H: PDB Molecule: hypothetical protein aq2171; PDBTitle: crystal structure of aq2171 from aquifex aeolicus
27	d2djia2		not modelled	29.8	13	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase Pyr module
28	d2phcb1		not modelled	29.4	15	Fold: Cyclophilin-like Superfamily: Cyclophilin-like

						Family: PH0987 C-terminal domain-like
29	c3k2qA		Alignment	not modelled	29.3	27 PDB header: transferase Chain: A: PDB Molecule: pyrophosphate-dependent phosphofructokinase; PDBTitle: crystal structure of pyrophosphate-dependent2 phosphofructokinase from marinobacter aquaeolei, northeast3 structural genomics consortium target mqr88
30	c3o8oC		Alignment	not modelled	29.3	27 PDB header: transferase Chain: C: PDB Molecule: 6-phosphofructokinase subunit alpha; PDBTitle: structure of phosphofructokinase from saccharomyces cerevisiae
31	d1pfka		Alignment	not modelled	29.1	20 Fold: Phosphofructokinase Superfamily: Phosphofructokinase Family: Phosphofructokinase
32	c1zxxA		Alignment	not modelled	28.7	19 PDB header: transferase Chain: A: PDB Molecule: 6-phosphofructokinase; PDBTitle: the crystal structure of phosphofructokinase from lactobacillus2 delbrueckii
33	c2kebA		Alignment	not modelled	28.6	10 PDB header: dna binding protein Chain: A: PDB Molecule: dna polymerase subunit alpha b; PDBTitle: nmr solution structure of the n-terminal domain of the dna polymerase2 alpha p68 subunit
34	c2l1IB		Alignment	not modelled	27.8	16 PDB header: nuclear protein Chain: B: PDB Molecule: exportin-1; PDBTitle: nmr solution structure of the phi0 pki nes peptide in complex with2 crm1-rangtp
35	c1fnca		Alignment	not modelled	25.4	34 PDB header: oxidoreductase (nadp+(a),ferredoxin(a)) Chain: A: PDB Molecule: ferredoxin-nadp+ reductase; PDBTitle: refined crystal structure of spinach ferredoxin reductase2 at 1.7 angstroms resolution: oxidized, reduced, and 2'-3 phospho-5'-amp bound states
36	c2p5zX		Alignment	not modelled	23.7	15 PDB header: structural genomics, unknown function Chain: X: PDB Molecule: type vi secretion system component; PDBTitle: the e. coli c3393 protein is a component of the type vi secretion2 system and exhibits structural similarity to t4 bacteriophage tail3 proteins gp27 and gp5
37	c3opyH		Alignment	not modelled	23.0	29 PDB header: transferase Chain: H: PDB Molecule: 6-phosphofructo-1-kinase beta-subunit; PDBTitle: crystal structure of pichia pastoris phosphofructokinase in the t-2 state
38	c3n1uA		Alignment	not modelled	22.6	5 PDB header: hydrolase Chain: A: PDB Molecule: hydrolase, had superfamily, subfamily iii a; PDBTitle: structure of putative had superfamily (subfamily iii a) hydrolase from2 legionella pneumophila
39	c3opyB		Alignment	not modelled	22.1	29 PDB header: transferase Chain: B: PDB Molecule: 6-phosphofructo-1-kinase beta-subunit; PDBTitle: crystal structure of pichia pastoris phosphofructokinase in the t-2 state
40	d1ffval		Alignment	not modelled	22.0	18 Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
41	d1zxial		Alignment	not modelled	21.4	21 Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
42	d1v97a1		Alignment	not modelled	20.3	13 Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
43	c3opyG		Alignment	not modelled	20.2	29 PDB header: transferase Chain: G: PDB Molecule: 6-phosphofructo-1-kinase alpha-subunit; PDBTitle: crystal structure of pichia pastoris phosphofructokinase in the t-2 state
44	d2f48a1		Alignment	not modelled	20.2	19 Fold: Phosphofructokinase Superfamily: Phosphofructokinase Family: Phosphofructokinase
45	d2al3a1		Alignment	not modelled	19.8	14 Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: UBX domain
46	c3g7pA		Alignment	not modelled	19.8	14 PDB header: unknown function Chain: A: PDB Molecule: nitrogen fixation protein; PDBTitle: crystal structure of a nifx-associated protein of unknown function2 (afe_1514) from acidithiobacillus ferrooxidans atcc at 2.00 a3 resolution
47	c3fiwB		Alignment	not modelled	19.7	20 PDB header: transcription regulator Chain: B: PDB Molecule: putative tetr-family transcriptional regulator; PDBTitle: structure of sco0253, a tetr-family transcriptional regulator from2 streptomyces coelicolor
48	d2piaa3		Alignment	not modelled	18.6	4 Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin domains from multidomain proteins
49	d1ozha2		Alignment	not modelled	18.1	7 Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase Pyr module
50	d3e9va1		Alignment	not modelled	17.8	15 Fold: BTG domain-like Superfamily: BTG domain-like Family: BTG domain-like
51	d2z15a1		Alignment	not modelled	17.6	18 Fold: BTG domain-like Superfamily: BTG domain-like Family: BTG domain-like
52	c3hl4B		Alignment	not modelled	17.3	8 PDB header: transferase Chain: B: PDB Molecule: choline-phosphate cytidylyltransferase a; PDBTitle: crystal structure of a mammalian ctp:phosphocholine2 cytidylyltransferase with cdp-choline PDB header: dna binding protein Chain: A: PDB Molecule: hrdc domain from bloom syndrome

53	c2rrdA	Alignment	not modelled	17.1	14	protein; PDBTitle: structure of hrdc domain from human bloom syndrome protein, blm
54	c2pmzN	Alignment	not modelled	16.7	14	PDB header: translation, transferase Chain: N: PDB Molecule: dna-directed rna polymerase subunit n; PDBTitle: archaeal rna polymerase from sulfolobus solfataricus
55	d1qo8a3	Alignment	not modelled	16.4	12	Fold: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Superfamily: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Family: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain
56	c3nj2B	Alignment	not modelled	16.4	9	PDB header: unknown function Chain: B: PDB Molecule: duf269-containing protein; PDBTitle: crystal structure of cce_0566 from the cyanobacterium cyanothece2 51142, a protein associated with nitrogen fixation from the duf269 family
57	d1jt6a1	Alignment	not modelled	16.1	20	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
58	d1d8ba	Alignment	not modelled	15.9	18	Fold: SAM domain-like Superfamily: HRDC-like Family: HRDC domain from helicases
59	c2zp2B	Alignment	not modelled	15.6	23	PDB header: transferase inhibitor Chain: B: PDB Molecule: kinase a inhibitor; PDBTitle: c-terminal domain of kipi from bacillus subtilis
60	d1n62a1	Alignment	not modelled	15.5	18	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
61	d1wrua2	Alignment	not modelled	14.9	26	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
62	d1f3ta2	Alignment	not modelled	14.9	11	Fold: TIM beta/alpha-barrel Superfamily: PLP-binding barrel Family: Alanine racemase-like, N-terminal domain
63	d1nd9a	Alignment	not modelled	14.7	20	Fold: Putative DNA-binding domain Superfamily: Putative DNA-binding domain Family: N-terminal subdomain of bacterial translation initiation factor IF2
64	c3m8jA	Alignment	not modelled	14.5	7	PDB header: transcription Chain: A: PDB Molecule: focb protein; PDBTitle: crystal structure of e.coli focb at 1.4 a resolution
65	c2xvcA	Alignment	not modelled	14.4	13	PDB header: cell cycle Chain: A: PDB Molecule: escrt-iii; PDBTitle: molecular and structural basis of escrt-iii recruitment to2 membranes during archaeal cell division
66	d2p7vb1	Alignment	not modelled	14.4	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
67	c3opyE	Alignment	not modelled	14.3	27	PDB header: transferase Chain: E: PDB Molecule: 6-phosphofructo-1-kinase alpha-subunit; PDBTitle: crystal structure of pichia pastoris phosphofructokinase in the t2 state
68	c3b81A	Alignment	not modelled	14.0	13	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, acrr family; PDBTitle: crystal structure of predicted dna-binding transcriptional regulator2 of tetr/acrr family (np_350189.1) from clostridium acetobutylicum at 2.10 a resolution
69	d1rm6c1	Alignment	not modelled	14.0	13	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
70	c3he0A	Alignment	not modelled	13.6	13	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, tetr family; PDBTitle: the structure of a putative transcriptional regulator tetr family2 protein from vibrio parahaemolyticus.
71	c2wuiA	Alignment	not modelled	13.6	20	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulator; PDBTitle: crystal structure of mexz, a key repressor responsible for2 antibiotic resistance in pseudomonas aeruginosa.
72	c2nvaH	Alignment	not modelled	13.6	6	PDB header: lyase Chain: H: PDB Molecule: arginine decarboxylase, a207r protein; PDBTitle: the x-ray crystal structure of the paramecium bursaria2 chlorella virus arginine decarboxylase bound to agmatine
73	c2qwwB	Alignment	not modelled	13.5	10	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulator, marr family; PDBTitle: crystal structure of multiple antibiotic-resistance repressor (marr)2 (yp_013417.1) from listeria monocytogenes 4b f2365 at 2.07 a3 resolution
74	d1gaqb	Alignment	not modelled	13.4	9	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
75	d1pvda2	Alignment	not modelled	13.3	18	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase Pyr module
76	d2i10a1	Alignment	not modelled	13.1	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
77	c2b5oA	Alignment	not modelled	12.9	31	PDB header: oxidoreductase Chain: A: PDB Molecule: ferredoxin--nadp reductase; PDBTitle: ferredoxin-nadp reductase
78	c1pfuA	Alignment	not modelled	12.9	15	PDB header: ligase Chain: A: PDB Molecule: methionyl-tRNA synthetase; PDBTitle: methionyl-tRNA synthetase from escherichia coli

						complexed2 with methionine phosphinate
79	c3ccyA	Alignment	not modelled	12.8	13	PDB header: transcription regulator Chain: A: PDB Molecule: putative tetr-family transcriptional regulator; PDBTitle: crystal structure of a tetr-family transcriptional regulator from2 bordetella parapertussis 12822
80	d1gawa2	Alignment	not modelled	12.7	28	Fold: Ferrodoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferrodoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
81	d1losc	Alignment	not modelled	12.7	10	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Decarboxylase
82	d2np5a1	Alignment	not modelled	12.6	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
83	c3f6wE	Alignment	not modelled	12.5	13	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
84	c2qcoA	Alignment	not modelled	12.5	17	PDB header: transcription Chain: A: PDB Molecule: cmer; PDBTitle: crystal structure of the transcriptional regulator cmer from2 campylobacter jejuni
85	d2cg4a1	Alignment	not modelled	12.4	16	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Lrp/AsnC-like transcriptional regulator N-terminal domain
86	d3cdxa2	Alignment	not modelled	12.4	14	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
87	d1oe8a1	Alignment	not modelled	12.3	22	Fold: GST C-terminal domain-like Superfamily: GST C-terminal domain-like Family: Glutathione S-transferase (GST), C-terminal domain
88	d1h3na3	Alignment	not modelled	12.3	13	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
89	d2fd5a1	Alignment	not modelled	12.3	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
90	c3bcgA	Alignment	not modelled	12.2	20	PDB header: transcription regulator Chain: A: PDB Molecule: hth-type transcriptional regulator acrr; PDBTitle: conformational changes of the acrr regulator reveal a2 mechanism of induction
91	c2k29A	Alignment	not modelled	12.2	19	PDB header: transcription Chain: A: PDB Molecule: antitoxin relb; PDBTitle: structure of the dbd domain of e. coli antitoxin relb
92	c2kwpA	Alignment	not modelled	12.2	21	PDB header: transcription Chain: A: PDB Molecule: transcription elongation protein nusa; PDBTitle: solution structure of the aminoterminal domain of e. coli nusa
93	d2g7la1	Alignment	not modelled	12.1	27	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
94	d1pb6a1	Alignment	not modelled	12.1	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain
95	c3nbmA	Alignment	not modelled	12.1	28	PDB header: transferase Chain: A: PDB Molecule: pts system, lactose-specific iibc components; PDBTitle: the lactose-specific iib component domain structure of the2 phosphoenolpyruvate:carbohydrate phosphotransferase system (pts) from3 streptococcus pneumoniae.
96	c1wygA	Alignment	not modelled	12.0	14	PDB header: oxidoreductase Chain: A: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of a rat xanthine dehydrogenase triple mutant2 (c535a, c992r and c1324s)
97	c2dg7A	Alignment	not modelled	12.0	23	PDB header: gene regulation Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of the putative transcriptional regulator sco03372 from streptomyces coelicolor a3(2)
98	d4fxca	Alignment	not modelled	11.9	22	Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
99	d2id3a1	Alignment	not modelled	11.9	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Tetracyclin repressor-like, N-terminal domain