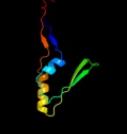
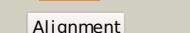
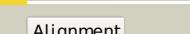
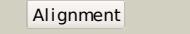
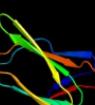
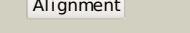
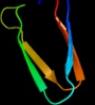
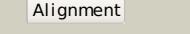
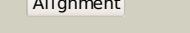
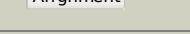
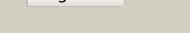
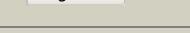
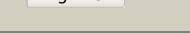


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P23485
Date	Thu Jan 5 11:39:31 GMT 2012
Unique Job ID	5dc982932c7e4058

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2y9kG_	Alignment		98.2	14	PDB header: protein transport Chain: G; PDB Molecule: protein invg; PDBTitle: three-dimensional model of salmonella's needle complex at2 subnanometer resolution
2	c3gr5A_	Alignment		97.9	9	PDB header: membrane protein Chain: A; PDB Molecule: escc; PDBTitle: periplasmic domain of the outer membrane secretin escc from2 enteropathogenic e.coli (epec)
3	c2y3mA_	Alignment		96.2	14	PDB header: transport protein Chain: A; PDB Molecule: protein transport protein hofq; PDBTitle: structure of the extra-membranous domain of the secretin2 hofq from actinobacillus actinomycetemcomitans
4	c2a02A_	Alignment		96.1	14	PDB header: membrane protein, metal transport Chain: A; PDB Molecule: ferric-pseudobactin 358 receptor; PDBTitle: solution nmr structure of the periplasmic signaling domain2 of the outer membrane iron transporter pupa from3 pseudomonas putida.
5	c3ezjA_	Alignment		96.1	10	PDB header: protein transport Chain: A; PDB Molecule: general secretion pathway protein gspd; PDBTitle: crystal structure of the n-terminal domain of the secretin gspd from2 etec determined with the assistance of a nanobody
6	c3hugl_	Alignment		95.7	12	PDB header: transcription/membrane protein Chain: J; PDB Molecule: probable conserved membrane protein; PDBTitle: crystal structure of mycobacterium tuberculosis anti-sigma factor rsl2 in complex with -35 promoter binding domain of sigl
7	c3ossD_	Alignment		95.4	17	PDB header: protein transport Chain: D; PDB Molecule: type 2 secretion system, secretin gspd; PDBTitle: the crystal structure of enterotoxigenic escherichia coli gspc-gspd2 complex from the type ii secretion system
8	c2d1ua_	Alignment		94.9	10	PDB header: metal transport Chain: A; PDB Molecule: iron(iii) dicitrate transport protein feca; PDBTitle: solution struture of the periplasmic signaling domain of2 feca from escherichia coli
9	c1zzvA_	Alignment		94.8	10	PDB header: membrane protein, metal transport Chain: A; PDB Molecule: iron(iii) dicitrate transport protein feca; PDBTitle: solution nmr structure of the periplasmic signaling domain2 of the outer membrane iron transporter feca from3 escherichia coli.
10	c3eo6B_	Alignment		86.1	12	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: protein of unknown function (duf1255); PDBTitle: crystal structure of protein of unknown function (duf1255)2 (afe_2634) from acidithiobacillus ferrooxidans ncib8455 at3 0.97 a resolution
11	c3cddD_	Alignment		85.2	14	PDB header: structural protein Chain: D; PDB Molecule: prophage muso2, 43 kda tail protein; PDBTitle: crystal structure of prophage muso2, 43 kda tail protein from2 shewanella oneidensis

12	c3hqxA			85.1	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0345 protein aciad0356; PDBTitle: crystal structure of protein of unknown function (duf1255, pf06865)2 from acinetobacter sp. adp1
13	d3cdxa2			79.1	15	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
14	c2z2sD			78.7	8	PDB header: transcription Chain: D: PDB Molecule: anti-sigma factor chrr, transcriptional activator chrr; PDBTitle: crystal structure of rhodobacter sphaeroides sige in complex with the2 anti-sigma chrr
15	d1uika1			74.2	11	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
16	d1uija1			71.0	8	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
17	c2eaab			65.8	11	PDB header: plant protein Chain: B: PDB Molecule: 7s globulin-3; PDBTitle: crystal structure of adzuki bean 7s globulin-3
18	c3s7eB			64.5	12	PDB header: allergen Chain: B: PDB Molecule: allergen ara h 1, clone p41b; PDBTitle: crystal structure of ara h 1
19	d2bnma2			62.8	10	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1459-like
20	c2pfwB			61.2	7	PDB header: unknown function Chain: B: PDB Molecule: cupin 2, conserved barrel domain protein; PDBTitle: crystal structure of a rmlc-like cupin (sfri_3105) from shewanella2 frigidimarina ncimb 400 at 1.90 a resolution
21	c2cauA		not modelled	56.9	10	PDB header: plant protein Chain: A: PDB Molecule: protein (canavalin); PDBTitle: canavolin from jack bean
22	d1yhfa1		not modelled	56.1	19	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: TM1287-like
23	d1dgwa		not modelled	56.0	10	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
24	c2iahA		not modelled	54.7	14	PDB header: membrane protein Chain: A: PDB Molecule: ferripyoverdine receptor; PDBTitle: crystal structure of the ferripyoverdine receptor of the outer2 membrane of pseudomonas aeruginosa bound to ferripyoverdine.
25	d1fxza2		not modelled	51.7	10	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
26	c2bnoA		not modelled	50.5	10	PDB header: oxidoreductase Chain: A: PDB Molecule: epoxidase; PDBTitle: the structure of hydroxypyrophosphonic acid epoxidase2 from s. wedmorensis.
27	c1uija		not modelled	46.9	8	PDB header: sugar binding protein Chain: A: PDB Molecule: beta subunit of beta conglycinin; PDBTitle: crystal structure of soybean beta-conglycinin beta2 homotrimer (i122m/k124w)
28	d2oyza1		not modelled	45.1	10	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: VPA0057-like

29	d1tkeal		Alignment	not modelled	45.1	24	Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: TGS domain
30	c2vz1A		Alignment	not modelled	42.2	10	PDB header: oxidoreductase Chain: A: PDB Molecule: galactose oxidase; PDBTitle: premat-galactose oxidase
31	c3es4B		Alignment	not modelled	40.3	12	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein duf861 with a rmlc-like cupin fold; PDBTitle: crystal structure of protein of unknown function (duf861) with a rmlc-2 like cupin fold (17741406) from agrobacterium tumefaciens str. c583 (dupont) at 1.64 a resolution
32	c1wwtA		Alignment	not modelled	38.4	15	PDB header: ligase Chain: A: PDB Molecule: threonyl-tRNA synthetase, cytoplasmic; PDBTitle: solution structure of the tgs domain from human threonyl-2 tRNA synthetase
33	d1dw0a		Alignment	not modelled	38.0	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
34	d1yfua1		Alignment	not modelled	36.7	8	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: 3-hydroxyanthranilic acid dioxygenase-like
35	d1y9qa2		Alignment	not modelled	36.3	19	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Probable transcriptional regulator VC1968, C-terminal domain
36	d2j73a1		Alignment	not modelled	36.2	11	Fold: Prealbumin-like Superfamily: Starch-binding domain-like Family: PUD-like
37	c2ozjB		Alignment	not modelled	34.8	12	PDB header: unknown function Chain: B: PDB Molecule: cupin 2, conserved barrel; PDBTitle: crystal structure of a cupin superfamily protein (dsy2733) from desulfobacterium hafniense dcb-2 at 1.60 a resolution
38	c3myxA		Alignment	not modelled	32.8	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pspto_0244; PDBTitle: crystal structure of a pspto_0244 (protein with unknown function which2 belongs to pfam duf861 family) from pseudomonas syringae pv. tomato3 str. dc3000 at 1.30 a resolution
39	c3kscD		Alignment	not modelled	30.7	13	PDB header: plant protein Chain: D: PDB Molecule: lega class; PDBTitle: crystal structure of pea prolegumin, an 11s seed globulin2 from pisum sativum l.
40	d1j58a		Alignment	not modelled	30.4	13	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
41	d2phla1		Alignment	not modelled	30.3	15	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
42	d1j1la		Alignment	not modelled	30.2	15	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Pirin-like
43	c3d37A		Alignment	not modelled	30.0	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: tail protein, 43 kda; PDBTitle: the crystal structure of the tail protein from neisseria meningitidis2 mc58
44	c3bcwB		Alignment	not modelled	29.6	9	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a duf861 family protein with a rmlc-like cupin2 fold (bb1179) from bordetella bronchiseptica rb50 at 1.60 a3 resolution
45	d1gu2a		Alignment	not modelled	28.7	14	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
46	d1v8qa		Alignment	not modelled	26.2	20	Fold: Barrel-sandwich hybrid Superfamily: Ribosomal L27 protein-like Family: Ribosomal L27 protein
47	d1o5ua		Alignment	not modelled	25.9	21	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Hypothetical protein TM1112
48	d1od5a2		Alignment	not modelled	25.8	7	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
49	c1wruA		Alignment	not modelled	25.6	13	PDB header: structural protein Chain: A: PDB Molecule: 43 kda tail protein; PDBTitle: structure of central hub elucidated by x-ray analysis of gene product2 44; baseplate component of bacteriophage mu
50	d2pyta1		Alignment	not modelled	25.2	17	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: EutQ-like
51	d1wxma1		Alignment	not modelled	25.1	26	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: Ras-binding domain, RBD
52	c3o5cA		Alignment	not modelled	22.8	15	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: cytochrome c peroxidase bcp of shewanella oneidensis
53	d1nyra2		Alignment	not modelled	22.6	18	Fold: beta-Grasp (ubiquitin-like) Superfamily: TGS-like Family: TGS domain
54	d1wrua2		Alignment	not modelled	21.8	13	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like

55	c1fxzC	Alignment	not modelled	21.7	10	PDB header: plant protein Chain: C; PDB Molecule: glycinin g1; PDBTitle: crystal structure of soybean proglycinin a1ab1b homotrimer
56	c3kgIB	Alignment	not modelled	21.7	15	PDB header: plant protein Chain: B; PDB Molecule: cruciferin; PDBTitle: crystal structure of procruciferin, 11s globulin from2 brassica napus
57	d1od5a1	Alignment	not modelled	21.6	14	Fold: Double-stranded beta-helix Superfamily: RmIC-like cupins Family: Germin/Seed storage 7S protein
58	c2ozia	Alignment	not modelled	21.3	9	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: hypothetical protein rpa4178; PDBTitle: structural genomics, the crystal structure of a putative2 protein rpa4178 from rhodopseudomonas palustris cga009
59	c2gu9B	Alignment	not modelled	21.3	6	PDB header: immune system Chain: B; PDB Molecule: tetracenomycin polyketide synthesis protein; PDBTitle: crystal structure of xc5357 from xanthomonas campestris: a2 putative tetracenomycin polyketide synthesis protein3 adopting a novel cupin subfamily structure
60	d1vj2a	Alignment	not modelled	21.2	12	Fold: Double-stranded beta-helix Superfamily: RmIC-like cupins Family: TM1459-like
61	c3ehkC	Alignment	not modelled	21.2	8	PDB header: plant protein Chain: C; PDB Molecule: pruin; PDBTitle: crystal structure of pru du amandin, an allergenic protein2 from prunus dulcis
62	d2oa4a1	Alignment	not modelled	20.5	31	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: SPO1678-like
63	c3hq7A	Alignment	not modelled	19.8	10	PDB header: oxidoreductase Chain: A; PDB Molecule: cytochrome c551 peroxidase; PDBTitle: ccpa from g. sulfurreducens, g94k/k97q/r100i variant
64	c2c1uB	Alignment	not modelled	19.7	15	PDB header: oxidoreductase Chain: B; PDB Molecule: di-haem cytochrome c peroxidase; PDBTitle: crystal structure of the di-haem cytochrome c peroxidase2 from paracoccus pantotrophus - oxidised form
65	c3qacA	Alignment	not modelled	19.7	10	PDB header: plant protein Chain: A; PDB Molecule: 11s globulin seed storage protein; PDBTitle: structure of amaranth 11s proglobulin seed storage protein from2 amaranthus hypochondriacus l.
66	c3c3vA	Alignment	not modelled	19.5	10	PDB header: allergen Chain: A; PDB Molecule: arachin arah3 isoform; PDBTitle: crystal structure of peanut major allergen ara h 3
67	c3rnnsA	Alignment	not modelled	19.0	14	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: cupin 2 conserved barrel domain protein; PDBTitle: cupin 2 conserved barrel domain protein from leptotrichia buccalis
68	d2f4pa1	Alignment	not modelled	18.8	11	Fold: Double-stranded beta-helix Superfamily: RmIC-like cupins Family: TM1287-like
69	c2e9qA	Alignment	not modelled	18.7	8	PDB header: plant protein Chain: A; PDB Molecule: 11s globulin subunit beta; PDBTitle: recombinant pro-11s globulin of pumpkin
70	c2vecA	Alignment	not modelled	18.7	10	PDB header: cytosolic protein Chain: A; PDB Molecule: pirin-like protein yhak; PDBTitle: the crystal structure of the protein yhak from escherichia coli
71	c2d5fB	Alignment	not modelled	18.6	14	PDB header: plant protein Chain: B; PDB Molecule: glycinin a3b4 subunit; PDBTitle: crystal structure of recombinant soybean proglycinin a3b4 subunit, its2 comparison with mature glycinin a3b4 subunit, responsible for hexamer3 assembly
72	d1eb7a2	Alignment	not modelled	18.0	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
73	c3pdkB	Alignment	not modelled	17.9	20	PDB header: isomerase Chain: B; PDB Molecule: phosphoglucosamine mutase; PDBTitle: crystal structure of phosphoglucosamine mutase from b. anthracis
74	d1mpga2	Alignment	not modelled	16.9	10	Fold: TBP-like Superfamily: TATA-box binding protein-like Family: DNA repair glycosylase, N-terminal domain
75	c2i45C	Alignment	not modelled	16.4	15	PDB header: structural genomics, unknown function Chain: C; PDB Molecule: hypothetical protein; PDBTitle: crystal structure of protein nmb1881 from neisseria meningitidis
76	d2p5zx2	Alignment	not modelled	16.3	7	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
77	c1nmlA	Alignment	not modelled	15.9	8	PDB header: oxidoreductase Chain: A; PDB Molecule: di-haem cytochrome c peroxidase; PDBTitle: di-haemic cytochrome c peroxidase from pseudomonas nautica 617, form2 in (ph 4.0)
78	d1fxza1	Alignment	not modelled	15.9	10	Fold: Double-stranded beta-helix Superfamily: RmIC-like cupins Family: Germin/Seed storage 7S protein
79	c2jrtA	Alignment	not modelled	15.4	25	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: uncharacterized protein; PDBTitle: nmr solution structure of the protein coded by gene2 rhos4_12090 of rhodobacter sphaeroides. northeast3 structural genomics target rhr5
80	c1w0ca	Alignment	not modelled	15.1	17	PDB header: transcription regulator Chain: A; PDB Molecule: transcriptional regulator, hth_3 family;

80	c1y7qm	Alignment	not modelled	15.1	17	PDBTitle: crystal structure of hth_3 family transcriptional regulator2 from vibrio cholerae Fold: Adenine nucleotide alpha hydrolase-like Superfamily: UDP-glucose/GDP-mannose dehydrogenase C-terminal domain Family: UDP-glucose/GDP-mannose dehydrogenase C-terminal domain
81	d1dlja3	Alignment	not modelled	15.1	9	PDB header: biosynthetic protein Chain: C: PDB Molecule: uncharacterized protein with rmlc-like cupin fold; PDBTitle: crystal structure of a putative biosynthetic protein with rmlc-like2 cupin fold (reut_b4087) from ralstonia eutropha jmp134 at 1.90 a3 resolution
82	c3fjsC	Alignment	not modelled	14.9	16	PDB header: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
83	d1nmla2	Alignment	not modelled	14.9	10	PDB header: lyase Chain: A: PDB Molecule: remf protein; PDBTitle: zink containing polyketide cyclase remf from streptomyces2 resistomycificus
84	c3ht2A	Alignment	not modelled	14.8	11	PDB header: ribosome Chain: O: PDB Molecule: 50s ribosomal protein l27; PDBTitle: t. thermophilus 70s ribosome in complex with mrna, trnas2 and ef-tu.gdp.kirromycin ternary complex, fitted to a 6.43 a cryo-em map. this file contains the 50s subunit.
85	c3fin0	Alignment	not modelled	14.3	20	PDB header: translation Chain: A: PDB Molecule: translation initiation factor if-1; PDBTitle: crystal structure of translation initiation factor 1 from mycobacterium tuberculosis
86	c3i4oA	Alignment	not modelled	13.9	9	PDB header: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
87	d1iqca2	Alignment	not modelled	13.5	10	PDB header: seed storage protein Chain: B: PDB Molecule: canavalin; PDBTitle: determination of three crystal structures of canavalin by molecular2 replacement
88	c1cauB	Alignment	not modelled	13.3	8	PDB header: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Type I phosphomannose isomerase
89	d1pmia	Alignment	not modelled	13.3	6	PDB header: isomerase Chain: B: PDB Molecule: uncharacterized iolb-like protein; PDBTitle: crystal structure of an iolb-like protein (stm4420) from salmonella2 typhimurium lt2 at 1.90 a resolution
90	c2qjvB	Alignment	not modelled	13.2	16	PDB header: beta-clip Superfamily: dUTPase-like Family: dUTPase-like
91	d2bsya1	Alignment	not modelled	12.8	8	PDB header: Barrel-sandwich hybrid Superfamily: Ribosomal L27 protein-like Family: Ribosomal L27 protein
92	d2zjrt1	Alignment	not modelled	12.7	18	PDB header: transcription Chain: C: PDB Molecule: sigma-e factor negative regulatory protein; PDBTitle: crystal structure of escherichia coli sigmiae with the cytoplasmic2 domain of its anti-sigma rsea
93	c1or7C	Alignment	not modelled	12.3	14	PDB header: N-terminal, cytoplasmic domain of anti-sigmaE factor RseA Superfamily: N-terminal, cytoplasmic domain of anti-sigmaE factor RseA Family: N-terminal, cytoplasmic domain of anti-sigmaE factor RseA
94	d1or7c	Alignment	not modelled	12.3	14	PDB header: isomerase Chain: C: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of a putative mannose-6-phosphate isomerase2 (reut_a1446) from ralstonia eutropha jmp134 at 2.10 a resolution
95	c2opkC	Alignment	not modelled	12.2	17	PDB header: oxidoreductase Chain: B: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: crystal structure of the di-haem cytochrome c peroxidase2 from pseudomonas aeruginosa - mixed valence form
96	c2vhdB	Alignment	not modelled	11.9	13	PDB header: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
97	d1ekxa1	Alignment	not modelled	11.9	14	PDB header: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
98	d1ml4a1	Alignment	not modelled	11.1	19	PDB header: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
99	d1lotha1	Alignment	not modelled	10.9	19	PDB header: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase