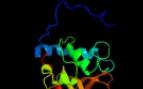
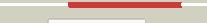
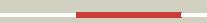
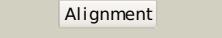
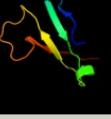
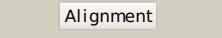
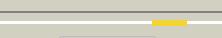
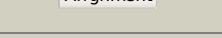


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	Q47151
Date	Wed Jan 25 15:21:14 GMT 2012
Unique Job ID	478d0df3eb964812

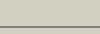
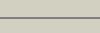
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2fg0B_			100.0	27	PDB header: hydrolase Chain: B; PDB Molecule: cog0791: cell wall-associated hydrolases (invasion- PDBTitle: crystal structure of a putative gamma-d-glutamyl-l-diamino acid2 endopeptidase (npun_r0659) from nostoc punctiforme pcc 73102 at 1.793 a resolution
2	c3h41A_			100.0	31	PDB header: hydrolase Chain: A; PDB Molecule: nlp/p60 family protein; PDBTitle: crystal structure of a nlp/p60 family protein (bce_2878) from2 bacillus cereus atcc 10987 at 1.79 a resolution
3	c2k1gA_			100.0	31	PDB header: lipoprotein Chain: A; PDB Molecule: lipoprotein spr; PDBTitle: solution nmr structure of lipoprotein spr from escherichia coli k12.2 northeast structural genomics target er541-37-162
4	c3npfB_			100.0	33	PDB header: hydrolase Chain: B; PDB Molecule: putative dipeptidyl-peptidase vi; PDBTitle: crystal structure of a putative dipeptidyl-peptidase vi (bacova_00612)2 from bacteroides ovatus at 1.72 a resolution
5	d2evra2			100.0	30	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: NlpC/P60
6	c2xiva_			100.0	24	PDB header: structural protein Chain: A; PDB Molecule: hypothetical invasion protein; PDBTitle: structure of rv1477, hypothetical invasion protein of2 mycobacterium tuberculosis
7	c3pb1A_			100.0	29	PDB header: hydrolase Chain: A; PDB Molecule: invasion protein; PDBTitle: structure of the peptidoglycan hydrolase ripb (rv1478) from2 mycobacterium tuberculosis at 1.6 resolution
8	c3i86A_			100.0	33	PDB header: hydrolase Chain: A; PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium subspecies2 paratuberculosis antigen map1204
9	c3gt2A_			100.0	33	PDB header: unknown function Chain: A; PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium2 paratuberculosis antigen map1272c
10	c3m1uB_			99.9	25	PDB header: hydrolase Chain: B; PDB Molecule: putative gamma-d-glutamyl-l-diamino acid endopeptidase; PDBTitle: crystal structure of a putative gamma-d-glutamyl-l-diamino acid2 endopeptidase (dvu_0896) from desulfobivrio vulgaris hildenborough at3 1.75 a resolution
11	c2p1gA_			99.6	22	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: putative xylanase; PDBTitle: crystal structure of a putative xylanase from bacteroides fragilis

12	c2im9A			98.4	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of protein lpg0564 from legionella pneumophila str.2 philadelphia 1, pfam duf1460
13	d2im9a1			98.4	19	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Lpg0564-like
14	c2kytA			98.2	23	PDB header: hydrolase Chain: A: PDB Molecule: group xvi phospholipase a2; PDBTitle: solution struture of the h-rev107 n-terminal domain
15	c3kw0D			97.8	28	PDB header: hydrolase Chain: D: PDB Molecule: cysteine peptidase; PDBTitle: crystal structure of cysteine peptidase (np_982244.1) from bacillus2 cereus atcc 10987 at 2.50 a resolution
16	d2if6a1			97.4	20	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: YiiX-like
17	d2io8a2			85.7	11	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: CHAP domain
18	c2k3aA			84.3	15	PDB header: hydrolase Chain: A: PDB Molecule: chap domain protein; PDBTitle: nmr solution structure of staphylococcus saprophyticus chap2 (cysteine, histidine-dependent amidohydrolases/peptidases)3 domain protein. northeast structural genomics consortium4 target syr11
19	d2arla1			80.0	15	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
20	c2vpmB			78.6	11	PDB header: ligase Chain: B: PDB Molecule: trypanothione synthetase; PDBTitle: trypanothione synthetase
21	d2g2xa1		not modelled	78.6	23	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
22	c2ioaA		not modelled	78.1	11	PDB header: ligase, hydrolase Chain: A: PDB Molecule: bifunctional glutathionylspermidine PDBTitle: e. coli bifunctional glutathionylspermidine2 synthetase/amidase complex with mg2+ and adp and3 phosphinate inhibitor
23	d2gbsa1		not modelled	77.7	28	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
24	c3eopB		not modelled	76.1	15	PDB header: unknown function Chain: B: PDB Molecule: thymocyte nuclear protein 1; PDBTitle: crystal structure of the duf55 domain of human thymocyte nuclear2 protein 1
25	d2evea1		not modelled	75.5	23	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
26	c3nnlB		not modelled	75.4	19	PDB header: biosynthetic protein Chain: B: PDB Molecule: cura; PDBTitle: halogenase domain from cura module (crystal form iii)
27	d1zcea1		not modelled	74.1	24	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
28	c3kopB		not modelled	58.9	19	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein with a cyclophilin-like fold2 (yp_831253.1) from arthrobacter sp. fb24 at 1.90 a resolution

29	d2eyqa1		Alignment	not modelled	50.3	26	Fold: SH3-like barrel Superfamily: Card-like Family: Card-like
30	d1jr7a_		Alignment	not modelled	45.7	14	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: Gab protein (hypothetical protein YgaT)
31	c2wbqA_		Alignment	not modelled	43.4	33	PDB header: oxidoreductase Chain: A: PDB Molecule: l-arginine beta-hydroxylase; PDBTitle: crystal structure of vioc in complex with (2s,3s)-2-hydroxyarginine
32	c2nnzA_		Alignment	not modelled	41.8	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: solution structure of the hypothetical protein af2241 from2 archaeoglobus fulgidus
33	d2ba0a2		Alignment	not modelled	38.0	33	Fold: Barrel-sandwich hybrid Superfamily: Ribosomal L27 protein-like Family: ECR1 N-terminal domain-like
34	c2og5A_		Alignment	not modelled	36.8	25	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxygenase; PDBTitle: crystal structure of asparagine oxygenase (asno)
35	d1o6aa_		Alignment	not modelled	35.5	8	Fold: Surface presentation of antigens (SPOA) Superfamily: Surface presentation of antigens (SPOA) Family: Surface presentation of antigens (SPOA)
36	d1ds1a_		Alignment	not modelled	35.4	38	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: Clavaminate synthase
37	d1vrba1		Alignment	not modelled	33.4	15	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: Asparaginyl hydroxylase-like
38	d1o9ya_		Alignment	not modelled	32.4	20	Fold: Surface presentation of antigens (SPOA) Superfamily: Surface presentation of antigens (SPOA) Family: Surface presentation of antigens (SPOA)
39	c3emrA_		Alignment	not modelled	31.6	17	PDB header: oxidoreductase Chain: A: PDB Molecule: ectd; PDBTitle: crystal structure analysis of the ectoine hydroxylase ectd from2 salicibillus salexigens
40	d1otja_		Alignment	not modelled	31.0	7	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: TauD/TfdA-like
41	d1nx4a_		Alignment	not modelled	30.3	29	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: gamma-Butyrobetaine hydroxylase
42	d1wpga1		Alignment	not modelled	30.3	16	Fold: Double-stranded beta-helix Superfamily: Calcium ATPase, transduction domain A Family: Calcium ATPase, transduction domain A
43	c3r1jB_		Alignment	not modelled	29.0	14	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
44	d1we3o_		Alignment	not modelled	28.8	25	Fold: GroES-like Superfamily: GroES-like Family: GroES
45	c3eatX_		Alignment	not modelled	28.5	21	PDB header: oxidoreductase Chain: X: PDB Molecule: pyoverdine biosynthesis protein pvcb; PDBTitle: crystal structure of the pvcb (pa2255) protein from2 pseudomonas aeruginosa
46	c3d79A_		Alignment	not modelled	27.7	17	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein ph0734; PDBTitle: crystal structure of hypothetical protein ph0734.1 from2 hyperthermophilic archaea pyrococcus horikoshii ot3
47	c2xdvA_		Alignment	not modelled	27.2	26	PDB header: nuclear protein Chain: A: PDB Molecule: myc-induced nuclear antigen; PDBTitle: crystal structure of the catalytic domain of flj14393
48	c2dbiA_		Alignment	not modelled	26.6	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ybiu; PDBTitle: crystal structure of a hypothetical protein jw0805 from2 escherichia coli
49	c3pvjB_		Alignment	not modelled	26.4	14	PDB header: oxidoreductase Chain: B: PDB Molecule: alpha-ketoglutarate-dependent taurine dioxygenase; PDBTitle: crystal structure of the fe(i)/alpha-ketoglutarate dependent taurine2 dioxygenase from pseudomonas putida kt2440
50	d2csga1		Alignment	not modelled	26.1	28	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: YbiU-like
51	d1oiha_		Alignment	not modelled	26.1	15	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: TauD/TfdA-like
52	c3ms5A_		Alignment	not modelled	25.3	21	PDB header: oxidoreductase Chain: A: PDB Molecule: gamma-butyrobetaine dioxygenase; PDBTitle: crystal structure of human gamma-butyrobetaine,2-oxoglutarate2 dioxygenase 1 (bbox1)
53	c3al6A_		Alignment	not modelled	25.2	30	PDB header: unknown function Chain: A: PDB Molecule: jmjc domain-containing protein c2orf60; PDBTitle: crystal structure of human tyw5
54	c2opwA_		Alignment	not modelled	25.1	35	PDB header: oxidoreductase Chain: A: PDB Molecule: phyhd1 protein; PDBTitle: crystal structure of human phytanoyl-coa dioxygenase phyhd1 (apo)
55	d1p3ha_		Alignment	not modelled	24.5	20	Fold: GroES-like Superfamily: GroES-like

						Family: GroES
56	d2jfga2	Alignment	not modelled	24.3	11	Fold: MurD-like peptidyl ligases, peptide-binding domain Superfamily: MurD-like peptidyl ligases, peptide-binding domain Family: MurCDEF C-terminal domain
57	c1yy3A	Alignment	not modelled	22.8	20	PDB header: isomerase Chain: A: PDB Molecule: s-adenosylmethionine:trna ribosyltransferase- PDBTitle: structure of s-adenosylmethionine:trna ribosyltransferase-2 isomerase (quea)
58	d1c0aa2	Alignment	not modelled	22.5	40	Fold: DCoH-like Superfamily: GAD domain-like Family: GAD domain
59	c3b8eC	Alignment	not modelled	22.0	12	PDB header: hydrolase/transport protein Chain: C: PDB Molecule: sodium/potassium-transporting atpase subunit PDBTitle: crystal structure of the sodium-potassium pump
60	d1l0wa2	Alignment	not modelled	21.8	50	Fold: DCoH-like Superfamily: GAD domain-like Family: GAD domain
61	d1y0za	Alignment	not modelled	21.1	29	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: gamma-Butyrobetaine hydroxylase
62	c2eyqA	Alignment	not modelled	20.9	26	PDB header: hydrolase Chain: A: PDB Molecule: transcription-repair coupling factor; PDBTitle: crystal structure of escherichia coli transcription-repair2 coupling factor
63	d2fcta1	Alignment	not modelled	20.8	17	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: PhyH-like
64	d1wida	Alignment	not modelled	20.8	22	Fold: DNA-binding pseudobarrel domain Superfamily: DNA-binding pseudobarrel domain Family: B3 DNA binding domain
65	c2hc8A	Alignment	not modelled	20.7	15	PDB header: transport protein Chain: A: PDB Molecule: cation-transporting atpase, p-type; PDBTitle: structure of the a. fulgidus copa a-domain
66	c3giba	Alignment	not modelled	18.4	30	PDB header: biosynthetic protein Chain: A: PDB Molecule: cytc3; PDBTitle: cytc3 with fe(ii) and alpha-ketoglutarate
67	d1yela1	Alignment	not modelled	18.2	22	Fold: DNA-binding pseudobarrel domain Superfamily: DNA-binding pseudobarrel domain Family: B3 DNA binding domain
68	d1knwa1	Alignment	not modelled	17.8	26	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like
69	d2a1xa1	Alignment	not modelled	17.6	28	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: PhyH-like
70	d1vkya	Alignment	not modelled	17.3	36	Fold: QueA-like Superfamily: QueA-like Family: QueA-like
71	c2zxeA	Alignment	not modelled	17.1	12	PDB header: hydrolase/transport protein Chain: A: PDB Molecule: na, k-atpase alpha subunit; PDBTitle: crystal structure of the sodium - potassium pump in the e2.2k+.pi2 state
72	c3uyjA	Alignment	not modelled	16.9	26	PDB header: oxidoreductase Chain: A: PDB Molecule: lysine-specific demethylase 8; PDBTitle: crystal structure of jmjd5 catalytic core domain in complex with2 nickle and alpha-kg
73	c2kijA	Alignment	not modelled	16.5	25	PDB header: hydrolase Chain: A: PDB Molecule: copper-transporting atpase 1; PDBTitle: solution structure of the actuator domain of the copper-2 transporting atpase atp7a
74	d2z1ea2	Alignment	not modelled	16.0	23	Fold: PurM C-terminal domain-like Superfamily: PurM C-terminal domain-like Family: PurM C-terminal domain-like
75	c2x35A	Alignment	not modelled	15.9	30	PDB header: transcription Chain: A: PDB Molecule: peregrin; PDBTitle: molecular basis of histone h3k36me3 recognition by the pwwp2 domain of brpf1.
76	c2rdsA	Alignment	not modelled	15.8	41	PDB header: oxidoreductase Chain: A: PDB Molecule: 1-deoxypentalenic acid 11-beta hydroxylase; fe(ii)/alpha- PDBTitle: crystal structure of ptlh with fe/oxalylglycine and ent-1-2 deoxypentalenic acid bound
77	d1iyca	Alignment	not modelled	15.6	67	Fold: Invertebrate chitin-binding proteins Superfamily: Invertebrate chitin-binding proteins Family: Antifungal peptide scarabaecin
78	c3j09A	Alignment	not modelled	15.4	15	PDB header: hydrolase, metal transport Chain: A: PDB Molecule: copper-exporting p-type atpase a; PDBTitle: high resolution helical reconstruction of the bacterial p-type atpase2 copper transporter copa
79	d1njb1	Alignment	not modelled	15.2	20	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like
80	c3rfuC	Alignment	not modelled	14.7	20	PDB header: hydrolase, membrane protein Chain: C: PDB Molecule: copper efflux atpase; PDBTitle: crystal structure of a copper-transporting pib-type atpase
81	d1aono	Alignment	not modelled	14.1	18	Fold: GroES-like Superfamily: GroES-like Family: GroES

82	d2phla2		Alignment	not modelled	13.7	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
83	d1wdia_		Alignment	not modelled	13.7	43	Fold: QueA-like Superfamily: QueA-like Family: QueA-like
84	c2q1dX_		Alignment	not modelled	13.7	17	PDB header: lyase Chain: X: PDB Molecule: 2-keto-3-deoxy-d-arabinonate dehydratase; PDBTitle: 2-keto-3-deoxy-d-arabinonate dehydratase complexed with magnesium and 2,5-dioxopentanoate
85	d1hkva1		Alignment	not modelled	13.4	31	Fold: Domain of alpha and beta subunits of F1 ATP synthase-like Superfamily: Alanine racemase C-terminal domain-like Family: Eukaryotic ODC-like
86	c3ixzA_		Alignment	not modelled	13.0	16	PDB header: hydrolase Chain: A: PDB Molecule: potassium-transporting atpase alpha; PDBTitle: pig gastric h+/k+-atpase complexed with aluminium fluoride
87	c1q7hA_		Alignment	not modelled	13.0	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved hypothetical protein; PDBTitle: structure of a conserved pua domain protein from thermoplasma2 acidophilum
88	c3j08A_		Alignment	not modelled	12.8	15	PDB header: hydrolase, metal transport Chain: A: PDB Molecule: copper-exporting p-type atpase a; PDBTitle: high resolution helical reconstruction of the bacterial p-type atpase2 copper transporter copa
89	d2ey4a1		Alignment	not modelled	12.6	17	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain
90	d1gta1		Alignment	not modelled	12.5	16	Fold: FAH Superfamily: FAH Family: FAH
91	c2r32A_		Alignment	not modelled	12.1	23	PDB header: immune system Chain: A: PDB Molecule: gcn4-pii/tumor necrosis factor ligand PDBTitle: crystal structure of human gitrl variant
92	d1hyoa2		Alignment	not modelled	12.0	38	Fold: FAH Superfamily: FAH Family: FAH
93	c3r6oA_		Alignment	not modelled	11.7	20	PDB header: isomerase Chain: A: PDB Molecule: 2-hydroxyhepta-2,4-diene-1, 7-dioateisomerase; PDBTitle: crystal structure of a probable 2-hydroxyhepta-2,4-diene-1, 7-2 dioateisomerase from mycobacterium abscessus
94	d2zoda2		Alignment	not modelled	11.5	21	Fold: PurM C-terminal domain-like Superfamily: PurM C-terminal domain-like Family: PurM C-terminal domain-like
95	d1s04a_		Alignment	not modelled	11.0	21	Fold: PUA domain-like Superfamily: PUA domain-like Family: ProFAR isomerase associated domain
96	c3ibmB_		Alignment	not modelled	10.9	22	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: cupin 2, conserved barrel domain protein; PDBTitle: crystal structure of cupin 2 domain-containing protein hhal_0468 from2 halorhodospira halophila
97	d2hd9a1		Alignment	not modelled	10.9	21	Fold: PUA domain-like Superfamily: PUA domain-like Family: Atu2648/PH1033-like
98	d1bg6a1		Alignment	not modelled	10.9	11	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: N-(1-D-carboxylethyl)-L-norvaline dehydrogenase
99	d2apoal		Alignment	not modelled	10.7	13	Fold: PUA domain-like Superfamily: PUA domain-like Family: PUA domain