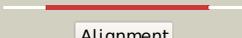
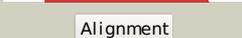
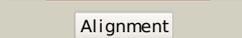


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P32668
Date	Thu Jan 5 11:49:57 GMT 2012
Unique Job ID	85814f8ccb6b5781

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2k1gA_	 Alignment		96.6	26	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
2	d2evra2	 Alignment		95.4	22	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: NlpC/P60
3	c3pbiA_	 Alignment		95.3	20	PDB header: hydrolase Chain: A: PDB Molecule: invasion protein; PDBTitle: structure of the peptidoglycan hydrolase ripb (rv1478) from2 mycobacterium tuberculosis at 1.6 resolution
4	c3gt2A_	 Alignment		95.0	15	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium2 paratuberculosis antigen map1272c
5	c3npiB_	 Alignment		94.6	21	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
6	c3i86A_	 Alignment		94.2	18	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium subspecies2 paratuberculosis antigen map1204
7	c2xivA_	 Alignment		93.6	25	PDB header: structural protein Chain: A: PDB Molecule: hypothetical invasion protein; PDBTitle: structure of rv1477, hypothetical invasion protein of2 mycobacterium tuberculosis
8	c3h41A_	 Alignment		93.5	14	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
9	c2fg0B_	 Alignment		91.6	24	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
10	d2if6a1	 Alignment		85.6	17	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Yiix-like
11	c2p1gA_	 Alignment		83.6	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative xylanase; PDBTitle: crystal structure of a putative xylanase from bacteroides fragilis

12	d2io8a2	Alignment		70.5	13	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: CHAP domain
13	c3kw0D_	Alignment		69.4	19	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
14	c2vpmB_	Alignment		63.3	14	PDB header: ligase Chain: B: PDB Molecule: trypanothione synthetase; PDBTitle: trypanothione synthetase
15	c2k3aA_	Alignment		57.9	28	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
16	c3obcB_	Alignment		57.2	27	PDB header: hydrolase Chain: B: PDB Molecule: pyrophosphatase; PDBTitle: crystal structure of a pyrophosphatase (af1178) from archaeoglobus2 fulgidus at 1.80 a resolution
17	c3m1uB_	Alignment		55.9	24	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 desulfovibrio vulgaris hildenborough at3 1.75 a resolution
18	c2ioaA_	Alignment		53.7	18	PDB header: ligase, hydrolase Chain: A: PDB Molecule: bifunctional glutathionylspermidine synthetase/amidase incomplex with mg2+ and adp and3 phosphinate inhibitor
19	c3isrB_	Alignment		53.3	15	PDB header: hydrolase Chain: B: PDB Molecule: transglutaminase-like enzymes, putative cysteine protease; PDBTitle: the crystal structure of a putative cysteine protease from cytophaga2 hutchinsonii to 1.9a
20	c1rqgA_	Alignment		53.3	29	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: methionyl-trna synthetase from pyrococcus abyssi
21	d2a3qa1	Alignment	not modelled	49.5	34	Fold: all-alpha NTP pyrophosphatases Superfamily: all-alpha NTP pyrophosphatases Family: MazG-like
22	c2q4pA_	Alignment	not modelled	49.5	34	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein rs21-c6; PDBTitle: ensemble refinement of the crystal structure of protein from mus2 musculus mm.29898
23	d1nx4a_	Alignment	not modelled	46.5	22	Fold: Double-stranded beta-helix Superfamily: Clavaminatase synthase-like Family: gamma-Butyrobetaine hydroxylase
24	d1bqka_	Alignment	not modelled	42.5	13	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
25	c3r1jB_	Alignment	not modelled	40.9	33	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
26	d1otja_	Alignment	not modelled	40.9	44	Fold: Double-stranded beta-helix Superfamily: Clavaminatase synthase-like Family: TauD/TfdA-like
27	c3pviB_	Alignment	not modelled	38.9	33	PDB header: oxidoreductase Chain: B: PDB Molecule: alpha-ketoglutarate-dependent taurine dioxygenase; PDBTitle: crystal structure of the fe(ii)/alpha-ketoglutarate dependent taurine2 dioxygenase from pseudomonas putida kt2440
28	c2kytA_	Alignment	not modelled	38.0	16	PDB header: hydrolase Chain: A: PDB Molecule: group xvi phospholipase a2; PDBTitle: solution struture of the h-rev107 n-terminal domain

29	c3eatX	Alignment	not modelled	36.2	22	PDB header: oxidoreductase Chain: X: PDB Molecule: pyoverdine biosynthesis protein pvcb; PDBTitle: crystal structure of the pvcb (pa2255) protein from2 pseudomonas aeruginosa
30	d1y0za	Alignment	not modelled	35.3	33	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: gamma-Butyrobetaine hydroxylase
31	d1oiha	Alignment	not modelled	35.2	44	Fold: Double-stranded beta-helix Superfamily: Clavaminate synthase-like Family: TauD/TfdA-like
32	d1pmya	Alignment	not modelled	34.9	17	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
33	d1ilea3	Alignment	not modelled	33.6	11	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
34	d1plaa	Alignment	not modelled	32.6	16	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
35	c2x1C	Alignment	not modelled	32.3	30	PDB header: ligase Chain: C: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of mycobacterium smegmatis methionyl-trna2 synthetase in complex with methionine and adenosine
36	c2ct8A	Alignment	not modelled	32.1	26	PDB header: ligase/rna Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of aquifex aeolicus methionyl-trna2 synthetase complexed with trna(met) and methionyl-adenylate3 analogue
37	d2d5ba2	Alignment	not modelled	31.6	22	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
38	d1pfva2	Alignment	not modelled	31.4	30	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
39	d1kdja	Alignment	not modelled	31.0	31	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
40	d1rqga2	Alignment	not modelled	30.7	31	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
41	c3kflA	Alignment	not modelled	25.2	22	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: leishmania major methionyl-trna synthetase in complex with2 methionyladenylate and pyrophosphate
42	d2jxma1	Alignment	not modelled	24.4	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
43	c2zouB	Alignment	not modelled	24.4	15	PDB header: cell adhesion Chain: B: PDB Molecule: spondin-1; PDBTitle: crystal struture of human f-spondin reeler domain (fragment 2)
44	d1pcsa	Alignment	not modelled	23.5	21	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
45	d1wspa1	Alignment	not modelled	23.0	24	Fold: beta-Grasp (ubiquitin-like) Superfamily: Ubiquitin-like Family: DIX domain
46	d7pcya	Alignment	not modelled	22.4	25	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
47	d1bvp12	Alignment	not modelled	21.4	45	Fold: Viral protein domain Superfamily: Viral protein domain Family: Top domain of virus capsid protein
48	d9pcya	Alignment	not modelled	20.8	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
49	d1ahsa	Alignment	not modelled	20.5	26	Fold: Viral protein domain Superfamily: Viral protein domain Family: Top domain of virus capsid protein
50	d1h3na3	Alignment	not modelled	20.3	31	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
51	d1mgta2	Alignment	not modelled	19.7	23	Fold: Ribonuclease H-like motif Superfamily: Methylated DNA-protein cysteine methyltransferase domain Family: Methylated DNA-protein cysteine methyltransferase domain
52	d1bypa	Alignment	not modelled	19.2	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
53	d1paza	Alignment	not modelled	18.6	18	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
54	c1pfuA	Alignment	not modelled	18.1	30	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: methionyl-trna synthetase from escherichia coli complexed2 with methionine phosphinate
55	d2etna2	Alignment	not modelled	17.9	29	Fold: FKBP-like Superfamily: FKBP-like Family: GreA transcript cleavage factor, C-terminal domain

56	d1ag6a_	Alignment	not modelled	17.9	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
57	d2oiea1	Alignment	not modelled	17.5	38	Fold: all-alpha NTP pyrophosphatases Superfamily: all-alpha NTP pyrophosphatases Family: MazG-like
58	c1woyA_	Alignment	not modelled	16.5	22	PDB header: ligase Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of methionyl trna synthetase y225f mutant2 from thermus thermophilus
59	c2im9A_	Alignment	not modelled	16.2	13	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
60	d2im9a1	Alignment	not modelled	16.2	13	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Lpg0564-like
61	c2x35A_	Alignment	not modelled	15.8	20	PDB header: transcription Chain: A: PDB Molecule: peregrin; PDBTitle: molecular basis of histone h3k36me3 recognition by the pwwp2 domain of brpf1.
62	d1plca_	Alignment	not modelled	15.8	19	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
63	d1ivs44	Alignment	not modelled	15.3	17	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
64	d2nlua1	Alignment	not modelled	15.1	14	Fold: SH3-like barrel Superfamily: Tudor/PWWP/MBT Family: PWWP domain
65	d2f23a2	Alignment	not modelled	15.1	29	Fold: FKBP-like Superfamily: FKBP-like Family: GreA transcript cleavage factor, C-terminal domain
66	d1h3za_	Alignment	not modelled	15.0	15	Fold: SH3-like barrel Superfamily: Tudor/PWWP/MBT Family: PWWP domain
67	c2wbqA_	Alignment	not modelled	14.6	20	PDB header: oxidoreductase Chain: A: PDB Molecule: l-arginine beta-hydroxylase; PDBTitle: crystal structure of vioc in complex with (2s,3s)-2 hydroxyarginine
68	d1xcca_	Alignment	not modelled	14.5	19	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
69	c2og5A_	Alignment	not modelled	14.3	11	PDB header: oxidoreductase Chain: A: PDB Molecule: putative oxygenase; PDBTitle: crystal structure of asparagine oxygenase (asno)
70	c2etnA_	Alignment	not modelled	14.2	29	PDB header: transcription Chain: A: PDB Molecule: anti-cleavage anti-grea transcription factor PDBTitle: crystal structure of thermus aquaticus gfh1
71	d1iuza_	Alignment	not modelled	13.9	17	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
72	c3ms5A_	Alignment	not modelled	13.9	22	PDB header: oxidoreductase Chain: A: PDB Molecule: gamma-butyrobetaine dioxygenase; PDBTitle: crystal structure of human gamma-butyrobetaine,2-oxoglutarate2 dioxygenase 1 (bbox1)
73	c3lyiA_	Alignment	not modelled	13.9	9	PDB header: transcription Chain: A: PDB Molecule: bromodomain-containing protein 1; PDBTitle: pwwp domain of human bromodomain-containing protein 1
74	c3o82B_	Alignment	not modelled	13.8	14	PDB header: ligase Chain: B: PDB Molecule: peptide arylation enzyme; PDBTitle: structure of base n-terminal domain from acinetobacter baumannii bound2 to 5'-o-[n-(2,3-dihydroxybenzoyl)sulfamoyl] adenosine
75	c2l8kA_	Alignment	not modelled	13.0	35	PDB header: viral protein Chain: A: PDB Molecule: non-structural protein 7; PDBTitle: nmr structure of the arterivirus nonstructural protein 7 alpha (nsp72 alpha)
76	c2v2gC_	Alignment	not modelled	12.9	26	PDB header: oxidoreductase Chain: C: PDB Molecule: peroxiredoxin 6; PDBTitle: crystal structure of the c45s mutant of the peroxiredoxin 62 of arenicola marina. monoclinic form
77	d1te7a_	Alignment	not modelled	12.8	31	Fold: PUA domain-like Superfamily: PUA domain-like Family: yqfB-like
78	c3pfsA_	Alignment	not modelled	12.6	9	PDB header: protein binding Chain: A: PDB Molecule: bromodomain and phd finger-containing protein 3; PDBTitle: pwwp domain of human bromodomain and phd finger-containing protein 3
79	c2q9lA_	Alignment	not modelled	12.4	22	PDB header: hydrolase Chain: A: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of imazg from vibrio dat 722: ctag-imazg (p43212)
80	d1ds1a_	Alignment	not modelled	12.3	22	Fold: Double-stranded beta-helix Superfamily: Clavaminatase synthase-like Family: Clavaminatase synthase
81	d1ffy33	Alignment	not modelled	12.2	18	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
						PDB header: cytokine

82	c2l3oA_	Alignment	not modelled	11.7	33	Chain: A: PDB Molecule: interleukin 3; PDBTitle: solution structure of murine interleukin 3
83	c1u0bB_	Alignment	not modelled	11.6	28	PDB header: ligase/rna Chain: B: PDB Molecule: cysteinyI trna; PDBTitle: crystal structure of cysteinyI-trna synthetase binary2 complex with trnacs
84	c2wkdA_	Alignment	not modelled	11.5	57	PDB header: dna binding protein Chain: A: PDB Molecule: orf34p2; PDBTitle: crystal structure of a double ile-to-met mutant of protein2 orf34 from lactococcus phage p2
85	d2q5ba1	Alignment	not modelled	11.5	31	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
86	d1em8a_	Alignment	not modelled	11.0	25	Fold: DNA polymerase III chi subunit Superfamily: DNA polymerase III chi subunit Family: DNA polymerase III chi subunit
87	c2l53B_	Alignment	not modelled	11.0	38	PDB header: ca-binding protein/proton transport Chain: B: PDB Molecule: voltage-gated sodium channel type v alpha isoform b PDBTitle: crystal structure of apo-calmodulin in complex with the iq motif2 of human cardiac sodium channel nav1.5
88	c2p4vA_	Alignment	not modelled	10.6	24	PDB header: transcription Chain: A: PDB Molecule: transcription elongation factor greb; PDBTitle: crystal structure of the transcript cleavage factor, greb2 at 2.6a resolution
89	c3exmA_	Alignment	not modelled	10.1	29	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase sc4828; PDBTitle: crystal structure of the phosphatase sc4828 with the non-hydrolyzable2 nucleotide gpcp
90	c3ca8B_	Alignment	not modelled	9.6	25	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: protein ydcf; PDBTitle: crystal structure of escherichia coli ydcf, an s-adenosyl-l-methionine2 utilizing enzyme
91	d2cj3a1	Alignment	not modelled	9.0	18	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like
92	d1qcsa1	Alignment	not modelled	8.7	30	Fold: Double psi beta-barrel Superfamily: ADC-like Family: Cdc48 N-terminal domain-like
93	d1prxa_	Alignment	not modelled	8.5	26	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
94	c2kxwB_	Alignment	not modelled	8.3	33	PDB header: calcium-binding protein/metal transport Chain: B: PDB Molecule: sodium channel protein type 2 subunit alpha; PDBTitle: structure of the c-domain fragment of apo calmodulin bound to the iq2 motif of nav1.2
95	d1li5a2	Alignment	not modelled	8.2	31	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidylyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
96	c1obhA_	Alignment	not modelled	8.1	31	PDB header: synthetase Chain: A: PDB Molecule: leucyl-trna synthetase; PDBTitle: leucyl-trna synthetase from thermus thermophilus complexed2 with a pre-transfer editing substrate analogue in both3 synthetic active site and editing site
97	c2rfpA_	Alignment	not modelled	8.1	18	PDB header: hydrolase Chain: A: PDB Molecule: putative ntp pyrophosphohydrolase; PDBTitle: crystal structure of putative ntp pyrophosphohydrolase2 (yp_001813558.1) from exiguobacterium sibiricum 255-15 at 1.74 a3 resolution
98	c1ileA_	Alignment	not modelled	8.1	11	PDB header: aminoacyl-trna synthetase Chain: A: PDB Molecule: isoleucyl-trna synthetase; PDBTitle: isoleucyl-trna synthetase
99	d1bxua_	Alignment	not modelled	7.9	44	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Plastocyanin/azurin-like