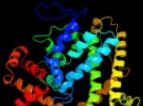
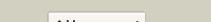
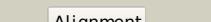
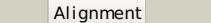
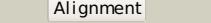
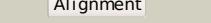
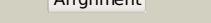


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P15723
Date	Thu Jan 5 11:34:52 GMT 2012
Unique Job ID	62d052af71b1f253

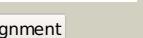
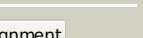
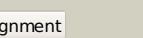
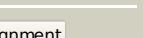
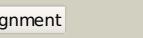
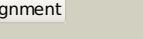
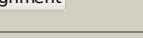
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3bg2A			100.0	32	PDB header: hydrolase Chain: A; PDB Molecule: dgtp triphosphohydrolase; PDBTitle: crystal structure of deoxyguanosinetriphosphate triphosphohydrolase2 from flavobacterium sp. med217
2	c2pgsA			100.0	36	PDB header: hydrolase Chain: A; PDB Molecule: putative deoxyguanosinetriphosphate triphosphohydrolase; PDBTitle: crystal structure of a putative deoxyguanosinetriphosphate2 triphosphohydrolase from pseudomonas syringae pv. phaseolicola 1448a
3	c2dqB			100.0	31	PDB header: hydrolase, dna binding protein Chain: B; PDB Molecule: deoxyguanosinetriphosphate triphosphohydrolase, putative; PDBTitle: crystal structure of dntp triphosphohydrolase from thermus2 thermophilus hb8, which is homologous to dgtp triphosphohydrolase
4	d2heka1			100.0	15	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
5	c2o6iA			99.9	22	PDB header: hydrolase Chain: A; PDB Molecule: hd domain protein; PDBTitle: structure of an enterococcus faecalis hd domain phosphohydrolase
6	d2o6ia1			99.9	22	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
7	c3u1nC			99.9	21	PDB header: hydrolase Chain: C; PDB Molecule: sam domain and hd domain-containing protein 1; PDBTitle: structure of the catalytic core of human samhd1
8	c2q14A			99.9	24	PDB header: hydrolase Chain: A; PDB Molecule: phosphohydrolase; PDBTitle: crystal structure of phosphohydrolase (bt4208) from bacteroides2 thetaiotaomicron vpi-5482 at 2.20 a resolution
9	c3ccgA			97.9	29	PDB header: hydrolase Chain: A; PDB Molecule: hd superfamily hydrolase; PDBTitle: crystal structure of predicted hd superfamily hydrolase involved in2 nad metabolism (np_347894.1) from clostridium acetobutylicum at 1.503 a resolution
10	c3gw7A			97.9	15	PDB header: hydrolase Chain: A; PDB Molecule: uncharacterized protein yedj; PDBTitle: crystal structure of a metal-dependent phosphohydrolase2 with conserved hd domain (yedj) from escherichia coli in3 complex with nickel ions. northeast structural genomics4 consortium target er63
11	c2ogiA			97.8	22	PDB header: hydrolase Chain: A; PDB Molecule: hypothetical protein sag1661; PDBTitle: crystal structure of a putative metal dependent phosphohydrolase2 (sag1661) from streptococcus agalactiae serogroup v at 1.85 a3 resolution

12	c2o08B			97.7	25	PDB header: hydrolase Chain: B: PDB Molecule: bh1327 protein; PDBTitle: crystal structure of a putative hd superfamily hydrolase (bh1327) from2 bacillus halodurans at 1.90 a resolution
13	d2qgsa1			97.5	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
14	d2pq7a1			97.4	20	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
15	d3b57a1			97.1	19	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
16	d3djba1			97.0	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
17	c3m1tA			96.9	25	PDB header: hydrolase Chain: A: PDB Molecule: putative phosphohydrolase; PDBTitle: crystal structure of putative phosphohydrolase (yp_929327.1) from2 shewanella amazonensis sb2b at 1.62 a resolution
18	d2pjqa1			96.7	15	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
19	d3dtoa1			96.6	19	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
20	c3skdA			95.7	20	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein ttgb187; PDBTitle: crystal structure of the thermus thermophilus cas3 hd domain in the2 presence of ni2+
21	c2ounA		not modelled	95.3	20	PDB header: hydrolase Chain: A: PDB Molecule: camp and camp-inhibited cgmp 3',5'-cyclic PDBTitle: crystal structure of pde10a2 in complex with amp
22	d3dy8a1		not modelled	95.1	16	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
23	c3ecmA		not modelled	95.1	28	PDB header: hydrolase Chain: A: PDB Molecule: high affinity camp-specific and ibmx-insensitive PDBTitle: crystal structure of the unliganded pde8a catalytic domain
24	c3i7aA		not modelled	94.9	22	PDB header: hydrolase Chain: A: PDB Molecule: putative metal-dependent phosphohydrolase; PDBTitle: crystal structure of putative metal-dependent phosphohydrolase2 (yp_926882.1) from shewanella amazonensis sb2 at 2.06 a resolution
25	c1z1IA		not modelled	94.9	19	PDB header: hydrolase Chain: A: PDB Molecule: cgmp-dependent 3',5'-cyclic phosphodiesterase; PDBTitle: the crystal structure of the phosphodiesterase 2a catalytic2 domain
26	c2o8hA		not modelled	94.9	21	PDB header: hydrolase Chain: A: PDB Molecule: phosphodiesterase-10a; PDBTitle: crystal structure of the catalytic domain of rat2 phosphodiesterase 10a
27	c3qi4A		not modelled	94.8	16	PDB header: hydrolase Chain: A: PDB Molecule: high affinity cgmp-specific 3',5'-cyclic phosphodiesterase PDBTitle: crystal structure of pde9a(q453e) in complex with ibmx

28	c2r8qA	Alignment	not modelled	94.8	19	PDB header: hydrolase Chain: A: PDB Molecule: class i phosphodiesterase pdeb1; PDBTitle: structure of Imjpdeb1 in complex with ibmx
29	c3ibjB	Alignment	not modelled	94.6	19	PDB header: hydrolase Chain: B: PDB Molecule: cgmp-dependent 3',5'-cyclic phosphodiesterase; PDBTitle: x-ray structure of pde2a
30	c1zkIA	Alignment	not modelled	94.6	23	PDB header: hydrolase Chain: A: PDB Molecule: high-affinity camp-specific 3',5'-cyclic nucleotide phosphodiesterases PDBTitle: multiple determinants for inhibitor selectivity of cyclic2
31	c3g3nA	Alignment	not modelled	94.6	23	PDB header: hydrolase Chain: A: PDB Molecule: high affinity camp-specific 3',5'-cyclic PDBTitle: pde7a catalytic domain in complex with 3-(2,6-2 difluorophenyl)-2-(methylthio)quinazolin-4(3h)-one
32	d1f0ja	Alignment	not modelled	94.5	16	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
33	d1tbfA	Alignment	not modelled	94.5	21	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
34	c1xozA	Alignment	not modelled	94.5	21	PDB header: hydrolase Chain: A: PDB Molecule: cgmp-specific 3',5'-cyclic phosphodiesterase; PDBTitle: catalytic domain of human phosphodiesterase 5a in complex2 with tadalafil
35	c3hc1A	Alignment	not modelled	94.4	29	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized hdod domain protein; PDBTitle: crystal structure of hdod domain protein with unknown function2 (np_953345.1) from geobacter sulfurreducens at 1.90 a resolution
36	d1y2ka1	Alignment	not modelled	94.2	21	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
37	d2h44a1	Alignment	not modelled	94.2	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
38	c1xotB	Alignment	not modelled	93.8	16	PDB header: hydrolase Chain: B: PDB Molecule: camp-specific 3',5'-cyclic phosphodiesterase 4b; PDBTitle: catalytic domain of human phosphodiesterase 4b in complex with2 vardenafil
39	c3bjcA	Alignment	not modelled	93.7	18	PDB header: hydrolase Chain: A: PDB Molecule: cgmp-specific 3',5'-cyclic phosphodiesterase; PDBTitle: crystal structure of the pde5a catalytic domain in complex2 with a novel inhibitor
40	c2cqzA	Alignment	not modelled	93.6	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 177aa long hypothetical protein; PDBTitle: crystal structure of ph0347 protein from pyrococcus horikoshii ot3
41	d1taza	Alignment	not modelled	93.5	14	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
42	d1ynba1	Alignment	not modelled	93.3	14	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
43	c3kq5A	Alignment	not modelled	93.2	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical cytosolic protein; PDBTitle: crystal structure of an uncharacterized protein from coxiella burnetii
44	d2paqa1	Alignment	not modelled	92.5	23	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
45	c3memA	Alignment	not modelled	92.3	15	PDB header: signaling protein Chain: A: PDB Molecule: putative signal transduction protein; PDBTitle: crystal structure of a putative signal transduction protein2 (maqu_0641) from marinobacter aquaeolei vt8 at 2.25 a resolution
46	d1so2a	Alignment	not modelled	92.0	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
47	c3mzoA	Alignment	not modelled	91.3	15	PDB header: hydrolase Chain: A: PDB Molecule: lin2634 protein; PDBTitle: crystal structure of a hd-domain phosphohydrolase (lin2634) from2 listeria innocua at 1.98 a resolution
48	d1vgra	Alignment	not modelled	90.8	11	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: modified HD domain
49	d1u6za1	Alignment	not modelled	89.4	8	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: Ppx associated domain
50	d1xx7a	Alignment	not modelled	87.0	26	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
51	c2floA	Alignment	not modelled	84.1	8	PDB header: hydrolase Chain: A: PDB Molecule: exopolyphosphatase; PDBTitle: crystal structure of exopolyphosphatase (ppx) from e. coli o157:h7
52	c3m5fA	Alignment	not modelled	83.4	20	PDB header: hydrolase Chain: A: PDB Molecule: metal dependent phosphohydrolase; PDBTitle: structure of mj0384, a cas3 protein from methanocaldococcus jannaschii PDB header: transcription Chain: A: PDB Molecule: mmoq response regulator;

53	c3ljvA	Alignment	not modelled	81.7	18	PDB Title: crystal structure of mmoq response regulator (fragment 29-302) from2 methylococcus capsulatus str. bath, northeast structural genomics3 consortium target mcr175m PDB header: hydrolase Chain: B: PDB Molecule: predicted metal-dependent phosphohydrolase; PDBTitle: crystal structure of predicted metal-dependent2 phosphohydrolase (zp_00055740.2) from magnetospirillum3 magnetotacticum ms-1 at 1.37 a resolution
54	c3kh1B	Alignment	not modelled	79.6	25	 PDB header: hydrolase Chain: B: PDB Molecule: putative exopolyphosphatase; PDBTitle: crystal structure of putative exopolyphosphatase (17739545) from2 agrobacterium tumefaciens str. c58 (dupont) at 2.30 a resolution
55	c3hi0B	Alignment	not modelled	79.1	18	 Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
56	d2gz4a1	Alignment	not modelled	69.0	20	 PDB header: hydrolase Chain: A: PDB Molecule: endo-alpha-n-acetylgalactosaminidase; PDBTitle: crystal structure of endo-alpha-n-acetylgalactosaminidase2 from bifidobacterium longum (engbf)
57	c2zxqA	Alignment	not modelled	60.0	38	 PDB header: hydrolase Chain: A: PDB Molecule: endo-alpha-n-acetylgalactosaminidase; PDBTitle: endo-alpha-n-acetylgalactosaminidase from streptococcus pneumoniae:2 semet structure
58	c3ecqA	Alignment	not modelled	57.5	25	 Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
59	d1vj7a1	Alignment	not modelled	53.5	38	 PDB header: methyltransferase Chain: B: PDB Molecule: adenine-n6-dna-methyltransferase taqi; PDBTitle: structure of adenine-n6-dna-methyltransferase taqi
60	c1aqjB	Alignment	not modelled	47.6	71	 Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
61	d2ar0a1	Alignment	not modelled	46.6	71	 PDB header: hydrolase, transferase Chain: B: PDB Molecule: bifunctional rela/spot; PDBTitle: crystal structure of the bifunctional catalytic fragment of relseq2, the rela/spot homolog from streptococcus equisimilis.
62	c1vj7B	Alignment	not modelled	45.6	39	 Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
63	d2okca1	Alignment	not modelled	42.6	71	 PDB header: transferase/dna Chain: A: PDB Molecule: modification methylase taqi; PDBTitle: adenine-specific methyltransferase m. taq i/dna complex
64	c1g38A	Alignment	not modelled	42.2	71	 PDB header: transferase/dna binding protein Chain: A: PDB Molecule: type i restriction-modification system PDBTitle: crystal structure of type i restriction-modification system2 methylation subunit (mm_0429) from methanosaarchina mazei.
65	c3khkA	Alignment	not modelled	41.8	57	 Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: N-6 DNA Methylase-like
66	d2f8la1	Alignment	not modelled	38.9	43	 PDB header: transferase Chain: B: PDB Molecule: type i restriction-modification system PDBTitle: crystal structure of the type i restriction-modification2 system methyltransferase subunit from streptococcus3 thermophilus, northeast structural genomics consortium4 target sur80
67	c3lkdB	Alignment	not modelled	36.7	43	 PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome c551 peroxidase; PDBTitle: cytochrome c peroxidase bccp of shewanella oneidensis
68	c3o5cA	Alignment	not modelled	33.1	32	 Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
69	d1eb7a2	Alignment	not modelled	32.3	18	 Fold: Phosphorylase/hydrolase-like Superfamily: LigB-like Family: LigB-like
70	d1b4ub	Alignment	not modelled	30.3	14	 PDB header: hydrolase Chain: A: PDB Molecule: hd domain-containing protein 3; PDBTitle: a metazoan ortholog of spot hydrolyzes ppGpp and plays a role in2 starvation responses
71	c3nr1A	Alignment	not modelled	29.2	16	 PDB header: hydrolase Chain: B: PDB Molecule: cg11900; PDBTitle: a metazoan ortholog of spot hydrolyzes ppGpp and plays a role in2 starvation responses
72	c3nqwB	Alignment	not modelled	28.7	29	 Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
73	d1iqca2	Alignment	not modelled	25.9	29	 PDB header: transferase Chain: A: PDB Molecule: putative uncharacterized protein smu.472; PDBTitle: crystal structure of smu.472, a putative methyltransferase complexed2 with sah
74	c3ldgA	Alignment	not modelled	24.3	63	 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
75	c2c1uB	Alignment	not modelled	23.5	23	 PDB header: avirulence protein Chain: A: PDB Molecule: avirulence b protein; PDBTitle: crystal structure of the type iii effector avrb from2 pseudomonas syringae.
76	c1nh1A	Alignment	not modelled	23.2	27	 Fold: Antivirulence factor Superfamily: Antivirulence factor Family: Antivirulence factor
77	d1nh1a	Alignment	not modelled	23.2	27	

78	c3oa8B		Alignment	not modelled	21.8	35	PDB header: heme-binding protein/heme-binding protein Chain: B: PDB Molecule: soxx; PDBTitle: diheme soxax
79	c2zxn3		Alignment	not modelled	21.5	8	PDB header: ribosome Chain: 3: PDB Molecule: rps7e; PDBTitle: crystal structure of the eukaryotic 40s ribosomal 2 subunit in complex with initiation factor 1. this file3 contains the 40s subunit and initiation factor for4 molecule 2
80	c3k0bA		Alignment	not modelled	20.9	50	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: predicted n6-adenine-specific dna methylase; PDBTitle: crystal structure of a predicted n6-adenine-specific dna methylase2 from listeria monocytogenes str. 4b f2365
81	c2jqgA		Alignment	not modelled	20.6	12	PDB header: protein transport Chain: A: PDB Molecule: conserved oligomeric golgi complex subunit 2; PDBTitle: solution structure of saccharomyces cerevisiae conserved2 oligomeric golgi subunit 2 protein (cog2p)
82	d1nmla2		Alignment	not modelled	17.8	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: Di-heme cytochrome c peroxidase
83	c3lduA		Alignment	not modelled	17.3	63	PDB header: transferase Chain: A: PDB Molecule: putative methylase; PDBTitle: the crystal structure of a possible methylase from2 clostridium difficile 630.
84	c1lqcB		Alignment	not modelled	17.3	21	PDB header: oxidoreductase Chain: B: PDB Molecule: di-heme peroxidase; PDBTitle: crystal structure of di-heme peroxidase from nitrosomonas europaea
85	c2kviA		Alignment	not modelled	17.2	13	PDB header: rna binding protein Chain: A: PDB Molecule: nuclear polyadenylated rna-binding protein 3; PDBTitle: structure of nab3 rrm
86	c2vhdB		Alignment	not modelled	16.4	18	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
87	c3p04B		Alignment	not modelled	16.3	25	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
88	c3p04A		Alignment	not modelled	16.1	25	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
89	c3zrgB		Alignment	not modelled	15.8	55	PDB header: protein binding Chain: B: PDB Molecule: pexrd2 family secreted rxlr effector peptide, putative; PDBTitle: crystal structure of rxlr effector pexrd2 from phytophthora infestans
90	c1ni3A		Alignment	not modelled	15.5	25	PDB header: hydrolase Chain: A: PDB Molecule: ychf gtp-binding protein; PDBTitle: structure of the schizosaccharomyces pombe ychf gtpase
91	d1wf2a		Alignment	not modelled	15.2	13	Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: Canonical RBD
92	c2huoA		Alignment	not modelled	14.7	33	PDB header: oxidoreductase Chain: A: PDB Molecule: inositol oxygenase; PDBTitle: crystal structure of mouse myo-inositol oxygenase in complex with2 substrate
93	d3bxda1		Alignment	not modelled	14.7	33	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
94	d2ibna1		Alignment	not modelled	14.1	33	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
95	d1lghb		Alignment	not modelled	13.5	22	Fold: Light-harvesting complex subunits Superfamily: Light-harvesting complex subunits Family: Light-harvesting complex subunits
96	c1nmlA		Alignment	not modelled	13.2	21	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)
97	d2ovra1		Alignment	not modelled	13.1	25	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
98	c3k6jA		Alignment	not modelled	13.1	12	PDB header: oxidoreductase Chain: A: PDB Molecule: protein f01g10.3, confirmed by transcript evidence; PDBTitle: crystal structure of the dehydrogenase part of multifunctional enzyme 12 from c.elegans
99	c3s1sA		Alignment	not modelled	12.5	43	PDB header: hydrolase, transferase Chain: A: PDB Molecule: restriction endonuclease bpsi; PDBTitle: characterization and crystal structure of the type iig restriction2 endonuclease bpsi