

Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P76491
Date	Thu Jan 5 12:23:33 GMT 2012
Unique Job ID	78736b11405522cd

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2pqa1	Alignment		100.0	96	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
2	c3mzoA	Alignment		100.0	26	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
3	c3kh1B	Alignment		100.0	22	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
4	d1xx7a	Alignment		100.0	26	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
5	c2cqzA	Alignment		100.0	23	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 177aa long hypothetical protein; PDBTitle: crystal structure of ph0347 protein from pyrococcus horikoshii ot3
6	d1ynba1	Alignment		100.0	20	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
7	d2gz4a1	Alignment		99.9	26	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
8	d2pq7a1	Alignment		99.1	13	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
9	d2qgsa1	Alignment		98.9	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
10	d3b57a1	Alignment		98.9	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
11	d2pjqa1	Alignment		98.9	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain

12	c3gw7A			98.8	21	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
13	d3dtoa1			98.8	15	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
14	d3diba1			98.7	20	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
15	c2ogiA			98.6	16	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
16	c3ccgA			98.5	19	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
17	c2o08B			98.5	13	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
18	c3m1tA			97.6	13	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
19	c2dqB			97.5	18	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
20	c3i7aA			97.4	13	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 sb2b at 2.06 a resolution
21	c3hc1A		not modelled	97.3	23	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
22	c3memA		not modelled	96.9	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
23	c3nqwB		not modelled	96.8	17	PDB header: hydrolase Chain: B: PDB Molecule: cg11900; PDBTitle: a metazoaan ortholog of spot hydrolyzes ppGpp and plays a role in2 starvation responses
24	c3nr1A		not modelled	96.7	20	PDB header: hydrolase Chain: A: PDB Molecule: hd domain-containing protein 3; PDBTitle: a metazoaan ortholog of spot hydrolyzes ppGpp and plays a role in2 starvation responses
25	d2hekai		not modelled	96.5	22	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
26	c2o6iA		not modelled	96.5	23	PDB header: hydrolase Chain: A: PDB Molecule: hd domain protein; PDBTitle: structure of an enterococcus faecalis hd domain phosphohydrolase
27	d2o6ia1		not modelled	96.5	23	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
28	d1vgra		not modelled	96.4	10	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: modified HD domain

						PDB header: hydrolase
29	c2q14A_	Alignment	not modelled	96.3	21	Chain: A: PDB Molecule: phosphohydrolase; PDBTitle: crystal structure of phosphohydrolase (bt4208) from bacteroides2 thetaiotaomicron vpi-5482 at 2.20 a resolution
30	c3u1nC_	Alignment	not modelled	96.3	24	PDB header: hydrolase Chain: C: PDB Molecule: sam domain and hd domain-containing protein 1; PDBTitle: structure of the catalytic core of human samhd1
31	c3ljvA_	Alignment	not modelled	95.7	15	PDB header: transcription Chain: A: PDB Molecule: mmoq response regulator; PDBTitle: crystal structure of mmoq response regulator (fragment 29-302) from2 methylcoccus capsulatus str. bath, northeast structural genomics3 consortium target mcr175m
32	c2pgsA_	Alignment	not modelled	95.2	19	PDB header: hydrolase Chain: A: PDB Molecule: putative deoxyguanosinetriphosphate triphosphohydrolase; PDBTitle: crystal structure of a putative deoxyguanosinetriphosphate2 triphosphohydrolase from pseudomonas syringae pv. phaseolicola 1448a
33	d1vj7a1	Alignment	not modelled	94.0	21	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
34	c3bg2A_	Alignment	not modelled	93.7	32	PDB header: hydrolase Chain: A: PDB Molecule: dgtp triphosphohydrolase; PDBTitle: crystal structure of deoxyguanosinetriphosphate triphosphohydrolase2 from flavobacterium sp. med217
35	c1vj7B_	Alignment	not modelled	93.3	23	PDB header: hydrolase, transferase Chain: B: PDB Molecule: bifunctional rela/spot; PDBTitle: crystal structure of the bifunctional catalytic fragment of relseq,2 the rela/spot homolog from streptococcus equisimilis.
36	c3skdA_	Alignment	not modelled	88.6	22	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+
37	c3kq5A_	Alignment	not modelled	84.6	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical cytosolic protein; PDBTitle: crystal structure of an uncharacterized protein from coxiella burnetii
38	d1u6za1	Alignment	not modelled	78.5	12	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: Ppx associated domain
39	c1xotB_	Alignment	not modelled	70.9	18	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
40	d1y2ka1	Alignment	not modelled	70.8	14	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
41	c3m5fA_	Alignment	not modelled	66.1	15	PDB header: hydrolase Chain: A: PDB Molecule: metal dependent phosphohydrolase; PDBTitle: structure of mj0384, a cas3 protein from methanocaldococcus jannaschii
42	d1taza_	Alignment	not modelled	65.3	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
43	c2r8qA_	Alignment	not modelled	63.2	12	PDB header: hydrolase Chain: A: PDB Molecule: class i phosphodiesterase pdeb1; PDBTitle: structure of lmpdeb1 in complex with ibmx
44	c1xoza_	Alignment	not modelled	63.1	17	PDB header: hydrolase Chain: A: PDB Molecule: cgmp-specific 3',5'-cyclic phosphodiesterase; PDBTitle: catalytic domain of human phosphodiesterase 5a in complex2 with tadalafil
45	d3dy8a1	Alignment	not modelled	60.5	14	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
46	d3bxda1	Alignment	not modelled	59.6	24	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
47	c2huoA_	Alignment	not modelled	59.6	24	PDB header: oxidoreductase Chain: A: PDB Molecule: inositol oxygenase; PDBTitle: crystal structure of mouse myo-inositol oxygenase in complex with2 substrate
48	d1f0ja_	Alignment	not modelled	58.5	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
49	c2o8hA_	Alignment	not modelled	57.3	14	PDB header: hydrolase Chain: A: PDB Molecule: phosphodiesterase-10a; PDBTitle: crystal structure of the catalytic domain of rat2 phosphodiesterase 10a
50	d2h44a1	Alignment	not modelled	55.5	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
51	c3qi4A_	Alignment	not modelled	54.8	12	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
52	c3ibjB_	Alignment	not modelled	53.2	13	PDB header: hydrolase Chain: B: PDB Molecule: cgmp-dependent 3',5'-cyclic phosphodiesterase; PDBTitle: x-ray structure of pde2a
53	d2ibna1	Alignment	not modelled	51.9	28	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
						PDB header: hydrolase

54	c2ounA	Alignment	not modelled	51.2	12	Chain: A: PDB Molecule: camp and camp-inhibited cgmp 3',5'-cyclic PDBTitle: crystal structure of pde10a2 in complex with amp PDB header: hydrolase
55	c2floA	Alignment	not modelled	49.0	9	Chain: A: PDB Molecule: exopolyphosphatase; PDBTitle: crystal structure of exopolyphosphatase (ppx) from e. coli o157:h7 PDB header: hydrolase
56	c1z1IA	Alignment	not modelled	48.7	14	Chain: A: PDB Molecule: cgmp-dependent 3',5'-cyclic phosphodiesterase; PDBTitle: the crystal structure of the phosphodiesterase 2a catalytic2 domain PDB header: transcription
57	c2k0nA	Alignment	not modelled	37.7	22	Chain: A: PDB Molecule: mediator of rna polymerase ii transcription PDBTitle: solution structure of yeast gal11p kix domain PDB header: rna binding protein
58	c3rv0C	Alignment	not modelled	30.1	36	Chain: C: PDB Molecule: k. polysporus dcr1; PDBTitle: crystal structure of k. polysporus dcr1 without the c-terminal dsrbd
59	d1so2a	Alignment	not modelled	16.9	16	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
60	c3g3nA	Alignment	not modelled	15.2	12	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
61	d1tbfa	Alignment	not modelled	14.3	12	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: PDEase
62	c3r84O	Alignment	not modelled	13.8	19	PDB header: transcription Chain: O: PDB Molecule: mediator of rna polymerase ii transcription subunit 11; PDBTitle: structure of the mediator head subcomplex med11/22
63	d2dlda1	Alignment	not modelled	12.9	19	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
64	c3bjcA	Alignment	not modelled	12.2	11	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
65	c2wukD	Alignment	not modelled	12.0	10	PDB header: cell cycle Chain: D: PDB Molecule: septum site-determining protein diviva; PDBTitle: diviva n-terminal domain, f17a mutant
66	d1j4aa1	Alignment	not modelled	11.6	19	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
67	c3hi0B	Alignment	not modelled	11.2	13	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
68	d1ygya2	Alignment	not modelled	10.0	16	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
69	c3ecmA	Alignment	not modelled	9.1	11	PDB header: hydrolase Chain: A: PDB Molecule: high affinity camp-specific and ibmx-insensitive PDBTitle: crystal structure of the unliganded pde8a catalytic domain
70	d1odfa	Alignment	not modelled	8.9	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Phosphoribulokinase/pantothenate kinase
71	d1dxya2	Alignment	not modelled	8.3	11	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
72	c1z65A	Alignment	not modelled	7.7	17	PDB header: unknown function Chain: A: PDB Molecule: prion-like protein doppel; PDBTitle: mouse doppel 1-30 peptide
73	c3rv1B	Alignment	not modelled	6.7	38	PDB header: rna binding protein Chain: B: PDB Molecule: k. polysporus dcr1; PDBTitle: crystal structure of the n-terminal and rnase iii domains of k.2 polysporus dcr1 e224q mutant
74	c2k4vA	Alignment	not modelled	5.9	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pa1076; PDBTitle: solution structure of uncharacterized protein pa1076 from2 pseudomonas aeruginosa. northeast structural genomics3 consortium (nesg) target pat3, ontario center for4 structural proteomics target pa1076 .
75	d1sc6a2	Alignment	not modelled	5.8	13	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
76	c1zkIA	Alignment	not modelled	5.6	12	PDB header: hydrolase Chain: A: PDB Molecule: high-affinity camp-specific 3',5'-cyclic PDBTitle: multiple determinants for inhibitor selectivity of cyclic2 nucleotide phosphodiesterases
77	d1mvfd	Alignment	not modelled	5.6	21	Fold: Double-split beta-barrel Superfamily: AbrB/MazE/MraZ-like Family: Kis/PemI addiction antidote
						PDB header: hydrolase

78 [c2wdfA](#)

Alignment

not modelled

5.3

27

Chain: A: **PDB Molecule:**sulfur oxidation protein soxb;
PDBTitle: termus thermophilus sulfate thiohydrolase soxb