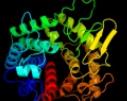
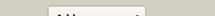
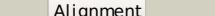
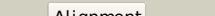
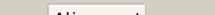
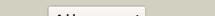
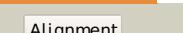
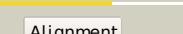
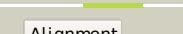
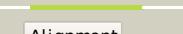
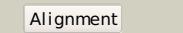
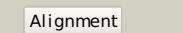
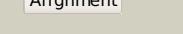
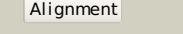


Phyre²

| | |
|---------------|--------------------------------|
| Email | i.a.kelley@imperial.ac.uk |
| Description | P37651 |
| Date | Thu Jan 5 11:56:23 GMT 2012 |
| Unique Job ID | 8eba1720deea65bb |

Detailed template information

| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|----------|---|---|------------|--------|---|
| 1 | c3qxqD_ |  |  | 100.0 | 100 | PDB header: hydrolase Chain: D: PDB Molecule: endoglucanase; PDBTitle: structure of the bacterial cellulose synthase subunit z in complex2 with cellobiose |
| 2 | d1wzza1 |  |  | 100.0 | 26 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 3 | d1wu4a1 |  |  | 100.0 | 22 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 4 | d1h12a_ |  |  | 100.0 | 22 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 5 | d1kwfa_ |  |  | 100.0 | 22 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 6 | d1v5da_ |  |  | 100.0 | 18 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 7 | c3renB_ |  |  | 100.0 | 14 | PDB header: hydrolase Chain: B: PDB Molecule: glycosyl hydrolase, family 8; PDBTitle: cpf_2247, a novel alpha-amylase from clostridium perfringens |
| 8 | c2zzrA_ |  |  | 94.2 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: unsaturated glucuronidyl hydrolase; PDBTitle: crystal structure of unsaturated glucuronidyl hydrolase from streptococcus agalactiae |
| 9 | d1fp3a_ |  |  | 93.9 | 12 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase |
| 10 | d2afaa1 |  |  | 93.3 | 8 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase |
| 11 | c3pmmA_ |  |  | 90.2 | 11 | PDB header: hydrolase Chain: A: PDB Molecule: putative cytoplasmic protein; PDBTitle: the crystal structure of a possible member of gh105 family from klebsiella pneumoniae subsp. pneumoniae mgh 78578 |

| | | | | | | |
|----|-------------------------|---|---|------|----|---|
| 12 | c3k11A_ |  |  | 88.9 | 7 | PDB header: hydrolase Chain: A: PDB Molecule: putative glycosyl hydrolase; PDBTitle: crystal structure of putative glycosyl hydrolase (np_813087.1) from2 bacteroides thetaiotomicron vpi-5482 at 1.80 a resolution |
| 13 | d1nxca_ |  |  | 83.2 | 15 | Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain |
| 14 | c3k7xA_ |  |  | 74.6 | 10 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0763 protein; PDBTitle: crystal structure of the lin0763 protein from listeria2 innocua. northeast structural genomics consortium target3 lkr23. |
| 15 | c3eu8D_ |  |  | 69.7 | 14 | PDB header: hydrolase Chain: D: PDB Molecule: putative glucoamylase; PDBTitle: crystal structure of putative glucoamylase (yp_210071.1) from2 bacteroides fragilis nctc 9343 at 2.12 a resolution |
| 16 | c3qspB_ |  |  | 68.0 | 15 | PDB header: hydrolase Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: analysis of a new family of widely distributed metal-independent alpha2 mannosidases provides unique insight into the processing of n-linked3 glycans, streptococcus pneumoniae sp_2144 non-productive substrate4 complex with alpha-1,6-mannobiose |
| 17 | d1g9ga_ |  |  | 55.3 | 30 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |
| 18 | c1x9dA_ |  |  | 47.2 | 14 | PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum mannosyl-oligosaccharide 1,2-mannosidase in2 complex with thio-disaccharide substrate analogue |
| 19 | d1x9da1 |  |  | 47.2 | 14 | Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain |
| 20 | c2gz6B_ |  |  | 42.9 | 7 | PDB header: isomerase Chain: B: PDB Molecule: n-acetyl-d-glucosamine 2-epimerase; PDBTitle: crystal structure of anabaena sp. ch1 n-acetyl-d-glucosamine 2-2 epimerase at 2.0 a |
| 21 | c3e6uA_ |  | not modelled | 37.6 | 14 | PDB header: signaling protein Chain: A: PDB Molecule: lanc-like protein 1; PDBTitle: crystal structure of human lanc1 |
| 22 | d1hcua_ |  | not modelled | 34.1 | 12 | Fold: alpha/alpha toroid Superfamily: Seven-hairpin glycosidases Family: Class I alpha-1;2-mannosidase, catalytic domain |
| 23 | d2p0va1 |  | not modelled | 31.2 | 14 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: CPF0428-like |
| 24 | c2p0vA_ |  | not modelled | 31.2 | 14 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein bt3781; PDBTitle: crystal structure of bt3781 protein from bacteroides2 thetaiotomicron, northeast structural genomics target3 btr58 PDB header: lyase Chain: A: PDB Molecule: 3-dehydroquinate synthase; PDBTitle: 2.5 angstrom resolution crystal structure of 3-dehydroquinate synthase2 (arob) from vibrio cholerae |
| 25 | c3okfA_ |  | not modelled | 21.6 | 24 | Fold: alpha/alpha toroid Superfamily: LanC-like Family: LanC-like |
| 26 | d2g0da1 |  | not modelled | 18.0 | 14 | PDB header: viral protein, protein binding Chain: A: PDB Molecule: protein nef; PDBTitle: hiv-1 nef protein in complex with engineered hck sh3 domain |
| 27 | c3rbba_ |  | not modelled | 17.4 | 30 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: CPF0428-like |
| 28 | d2nvpa1 |  | not modelled | 16.9 | 14 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: CPF0428-like |
| 29 | d1l1ya_ | | not modelled | 15.8 | 16 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Cellulases catalytic domain |

| | | | | | | | |
|----|-------------------------|--|-----------|--------------|------|----|---|
| 30 | c12aD_ | | Alignment | not modelled | 15.8 | 16 | PDB header: hydrolase Chain: D: PDB Molecule: cellobiohydrolase; PDBTitle: the crystal structure and catalytic mechanism of 2 cellobiohydrolase cels, the major enzymatic component of 3 the clostridium thermocellum cellosome |
| 31 | d2nefa_ | | Alignment | not modelled | 15.8 | 29 | Fold: Regulatory factor Nef Superfamily: Regulatory factor Nef Family: Regulatory factor Nef |
| 32 | c3jtgA_ | | Alignment | not modelled | 15.7 | 23 | PDB header: transcription Chain: A: PDB Molecule: ets-related transcription factor elf-3; PDBTitle: crystal structure of mouse elf3 c-terminal dna-binding domain in 2 complex with type ii tgf-beta receptor promoter dna |
| 33 | c3gt5A_ | | Alignment | not modelled | 15.1 | 10 | PDB header: isomerase Chain: A: PDB Molecule: n-acetylglucosamine 2-epimerase; PDBTitle: crystal structure of an n-acetylglucosamine 2-epimerase family protein 2 from xylella fastidiosa |
| 34 | d1nc5a_ | | Alignment | not modelled | 13.7 | 14 | Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Hypothetical protein YteR |
| 35 | c1p0oA_ | | Alignment | not modelled | 13.0 | 30 | PDB header: ribosome Chain: A: PDB Molecule: 19-mer peptide from 50s ribosomal protein l1; PDBTitle: hp (2-20) substitution of trp for gln and asp at position 17 and 19 modification in sds-d25 micelles |
| 36 | c3l55B_ | | Alignment | not modelled | 12.7 | 15 | PDB header: structural genomics, unknown function Chain: B: PDB Molecule: b-1,4-endoglucanase/cellulase; PDBTitle: crystal structure of a putative beta-1,4-endoglucanase /2 cellulase from prevotella bryantii |
| 37 | c3ik5A_ | | Alignment | not modelled | 12.6 | 25 | PDB header: viral protein/signaling protein Chain: A: PDB Molecule: protein nef; PDBTitle: sivmac239 nef in complex with tcr zeta itam 1 polypeptide 2 (a63-r80) |
| 38 | c2d3wb_ | | Alignment | not modelled | 12.1 | 29 | PDB header: biosynthetic protein Chain: B: PDB Molecule: probable atp-dependent transporter sufC; PDBTitle: crystal structure of escherichia coli sufC, an atpase2 component of the suf iron-sulfur cluster assembly machinery |
| 39 | c2dcoA_ | | Alignment | not modelled | 10.8 | 63 | PDB header: membrane protein Chain: A: PDB Molecule: s1p4 first extracellular loop peptidomimetic; PDBTitle: s1p4 first extracellular loop peptidomimetic |
| 40 | c2xi1A_ | | Alignment | not modelled | 10.0 | 30 | PDB header: viral protein Chain: A: PDB Molecule: nef; PDBTitle: crystal structure of the hiv-1 nef sequenced from a patient's sample |
| 41 | d1jb7a1 | | Alignment | not modelled | 9.8 | 17 | Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB |
| 42 | c3nfvA_ | | Alignment | not modelled | 9.0 | 13 | PDB header: lyase Chain: A: PDB Molecule: alginate lyase; PDBTitle: crystal structure of an alginate lyase (bacova_01668) from bacteroides 2 ovatus at 1.95 a resolution |
| 43 | d1efnb_ | | Alignment | not modelled | 8.9 | 30 | Fold: Regulatory factor Nef Superfamily: Regulatory factor Nef Family: Regulatory factor Nef |
| 44 | d1puee_ | | Alignment | not modelled | 8.4 | 18 | Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: ets domain |
| 45 | d1lm7a_ | | Alignment | not modelled | 8.3 | 20 | Fold: beta-hairpin-alpha-hairpin repeat Superfamily: Plakin repeat Family: Plakin repeat |
| 46 | c2oyIB_ | | Alignment | not modelled | 7.9 | 15 | PDB header: hydrolase Chain: B: PDB Molecule: endoglycoceramidase ii; PDBTitle: endo-glycoceramidase ii from rhodococcus sp.: cellobiose-like2 imidazole complex |
| 47 | d1rmva_ | | Alignment | not modelled | 6.8 | 24 | Fold: Four-helical up-and-down bundle Superfamily: TMV-like viral coat proteins Family: TMV-like viral coat proteins |
| 48 | d1g99a2 | | Alignment | not modelled | 6.6 | 31 | Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: Acetokinase-like |
| 49 | d1pgl21 | | Alignment | not modelled | 6.6 | 19 | Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP |
| 50 | d1pgw21 | | Alignment | not modelled | 6.5 | 19 | Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP |
| 51 | d1ny721 | | Alignment | not modelled | 6.4 | 13 | Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP |
| 52 | d1xjval | | Alignment | not modelled | 6.3 | 12 | Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: Single strand DNA-binding domain, SSB |
| 53 | d1ei7a_ | | Alignment | not modelled | 6.2 | 21 | Fold: Four-helical up-and-down bundle Superfamily: TMV-like viral coat proteins Family: TMV-like viral coat proteins |
| 54 | c1lf6A_ | | Alignment | not modelled | 6.1 | 20 | PDB header: hydrolase Chain: A: PDB Molecule: glucoamylase; PDBTitle: crystal structure of bacterial glucoamylase |
| 55 | c3pdmP_ | | Alignment | not modelled | 6.1 | 24 | PDB header: virus Chain: P: PDB Molecule: coat protein; PDBTitle: hibiscus latent singapore virus |
| | | | | | | | Fold: alpha/alpha toroid |

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|----|-------------------------|-----------|--------------|-----|----|---|
| 56 | d2d5ja1 | Alignment | not modelled | 5.9 | 10 | Superfamily: Six-hairpin glycosidases Family: Glycosyl Hydrolase Family 88 |
| 57 | d1vtmp_ | Alignment | not modelled | 5.9 | 17 | Fold: Four-helical up-and-down bundle Superfamily: TMV-like viral coat proteins Family: TMV-like viral coat proteins |
| 58 | c3sm3A_ | Alignment | not modelled | 5.9 | 12 | PDB header: transferase Chain: A: PDB Molecule: sam-dependent methyltransferases; PDBTitle: crystal structure of sam-dependent methyltransferases q8puk2_metna2 from methanosa <i>cina maezi</i> . northeast structural genomics consortium3 target mar262. |
| 59 | c3mtiA_ | Alignment | not modelled | 5.7 | 19 | PDB header: transferase Chain: A: PDB Molecule: rrna methylase; PDBTitle: the crystal structure of a rrna methylase from streptococcus2 thermophilus to 1.95a |
| 60 | c2bfuL_ | Alignment | not modelled | 5.6 | 10 | PDB header: virus Chain: L: PDB Molecule: cowpea mosaic virus, large (l) subunit; PDBTitle: x-ray structure of cpmv top component |
| 61 | c1bmv2_ | Alignment | not modelled | 5.4 | 14 | PDB header: virus/rna Chain: 2: PDB Molecule: protein (icosahedral virus - b and c domain); PDBTitle: protein-rna interactions in an icosahedral virus at 3.02 angstroms resolution |
| 62 | c1ta9A_ | Alignment | not modelled | 5.2 | 18 | PDB header: oxidoreductase Chain: A: PDB Molecule: glycerol dehydrogenase; PDBTitle: crystal structure of glycerol dehydrogenase from schizosaccharomyces2 pombe |
| 63 | c2ov2O_ | Alignment | not modelled | 5.1 | 29 | PDB header: protein binding/transferase Chain: O: PDB Molecule: serine/threonine-protein kinase pak 4; PDBTitle: the crystal structure of the human rac3 in complex with the crib2 domain of human p21-activated kinase 4 (pak4) |
| 64 | c2yfvC_ | Alignment | not modelled | 5.0 | 35 | PDB header: cell cycle Chain: C: PDB Molecule: scm3; PDBTitle: the heterotrimeric complex of kluyveromyces lactis scm3, cse4 and h4 |