


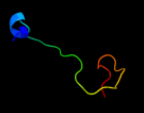


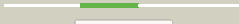





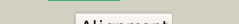
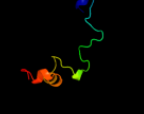
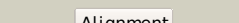

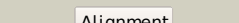



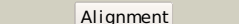
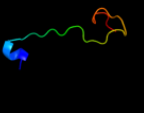

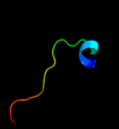
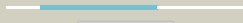






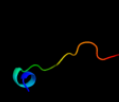
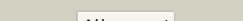



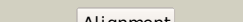

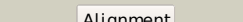
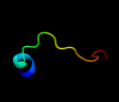
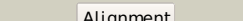
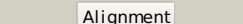
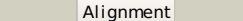
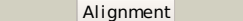
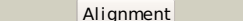
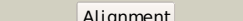
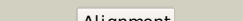
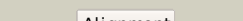
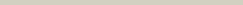


| # | Template | Alignment Coverage | 3D Model | Confidence | % i.d. | Template Information |
|----|-------------------------|--|---|------------|--------|---|
| 1 | d1tv8a_ |  Alignment |  | 82.0 | 18 | Fold: TIM beta/alpha-barrel Superfamily: Radical SAM enzymes Family: MoCo biosynthesis proteins |
| 2 | d1g5aa2 |  Alignment |  | 57.3 | 16 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 3 | c3k1dA_ |  Alignment |  | 52.4 | 23 | PDB header: transferase Chain: A: PDB Molecule: 1,4-alpha-glucan-branching enzyme; PDBTitle: crystal structure of glycogen branching enzyme synonym: 1,4-alpha-d-2 glucan:1,4-alpha-d-glucan 6-glucosyl- transferase from mycobacterium3 tuberculosis h37rv |
| 4 | c2kgrA_ |  Alignment |  | 51.0 | 12 | PDB header: protein binding Chain: A: PDB Molecule: intersectin-1; PDBTitle: solution structure of protein itsn1 from homo sapiens.2 northeast structural genomics consortium target hr5524a |
| 5 | c3amkA_ |  Alignment |  | 49.1 | 17 | PDB header: transferase Chain: A: PDB Molecule: os06g0726400 protein; PDBTitle: structure of the starch branching enzyme i (bei) from oryza sativa l |
| 6 | c1jgiA_ |  Alignment |  | 49.1 | 16 | PDB header: transferase Chain: A: PDB Molecule: amylsucrase; PDBTitle: crystal structure of the active site mutant glu328gln of2 amylsucrase from neisseria polysaccharea in complex with3 the natural substrate sucrose |
| 7 | c2fhfA_ |  Alignment |  | 48.8 | 8 | PDB header: hydrolase Chain: A: PDB Molecule: pullulanase; PDBTitle: crystal structure analysis of klebsiella pneumoniae2 pullulanase complexed with maltotetraose |
| 8 | c3amlA_ |  Alignment |  | 44.5 | 17 | PDB header: transferase Chain: A: PDB Molecule: os06g0726400 protein; PDBTitle: structure of the starch branching enzyme i (bei) from oryza sativa l |
| 9 | d1tz7a1 |  Alignment |  | 42.3 | 17 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 10 | c3czkA_ |  Alignment |  | 40.7 | 19 | PDB header: hydrolase Chain: A: PDB Molecule: sucrose hydrolase; PDBTitle: crystal structure analysis of sucrose hydrolase(suh) e322q-2 sucrose complex |
| 11 | c3ucqA_ |  Alignment |  | 39.8 | 16 | PDB header: transferase Chain: A: PDB Molecule: amylsucrase; PDBTitle: crystal structure of amylsucrase from deinococcus geothermalis |

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|----|-------------------------|---|-----------|---|------|----|--|
| 12 | c3faxA_ |  | Alignment |  | 36.3 | 26 | PDB header: hydrolase Chain: A: PDB Molecule: reticulocyte binding protein; PDBTitle: the crystal structure of gbs pullulanase sap in complex with2 maltotetraose |
| 13 | c3l51B_ |  | Alignment |  | 35.6 | 13 | PDB header: cell cycle Chain: B: PDB Molecule: structural maintenance of chromosomes protein 4; PDBTitle: crystal structure of the mouse condensin hinge domain |
| 14 | d2obba1 |  | Alignment |  | 35.3 | 11 | Fold: HAD-like Superfamily: HAD-like Family: BT0820-like |
| 15 | d2aaaa2 |  | Alignment |  | 34.9 | 10 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 16 | c2ya1A_ |  | Alignment |  | 34.4 | 33 | PDB header: hydrolase Chain: A: PDB Molecule: putative alkaline amylopullulanase; PDBTitle: product complex of a multi-modular glycogen-degrading2 pneumococcal virulence factor spua |
| 17 | c3eyiB_ |  | Alignment |  | 33.9 | 27 | PDB header: dna binding protein/dna Chain: B: PDB Molecule: z-dna-binding protein 1; PDBTitle: the crystal structure of the second z-dna binding domain of2 human dai (zbp1) in complex with z-dna |
| 18 | d1gjwa2 |  | Alignment |  | 33.9 | 21 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 19 | d1iq3a_ |  | Alignment |  | 33.5 | 15 | Fold: EF Hand-like Superfamily: EF-hand Family: Eps15 homology domain (EH domain) |
| 20 | c2e8yA_ |  | Alignment |  | 33.3 | 28 | PDB header: hydrolase Chain: A: PDB Molecule: amyx protein; PDBTitle: crystal structure of pullulanase type i from bacillus subtilis str.2 168 |
| 21 | c1bf2A_ |  | Alignment | not modelled | 32.3 | 21 | PDB header: hydrolase Chain: A: PDB Molecule: isoamylase; PDBTitle: structure of pseudomonas isoamylase |
| 22 | c2wanA_ |  | Alignment | not modelled | 32.2 | 33 | PDB header: hydrolase Chain: A: PDB Molecule: pullulanase; PDBTitle: pullulanase from bacillus acidopullulyticus |
| 23 | d1fi6a_ |  | Alignment | not modelled | 28.1 | 13 | Fold: EF Hand-like Superfamily: EF-hand Family: Eps15 homology domain (EH domain) |
| 24 | c2wd5A_ |  | Alignment | not modelled | 25.6 | 9 | PDB header: cell cycle Chain: A: PDB Molecule: structural maintenance of chromosomes protein 1a; PDBTitle: smc hinge heterodimer (mouse) |
| 25 | c2ya0A_ |  | Alignment | not modelled | 24.1 | 32 | PDB header: hydrolase Chain: A: PDB Molecule: putative alkaline amylopullulanase; PDBTitle: catalytic module of the multi-modular glycogen-degrading2 pneumococcal virulence factor spua |
| 26 | c2vncB_ |  | Alignment | not modelled | 23.9 | 29 | PDB header: hydrolase Chain: B: PDB Molecule: glycogen operon protein glgx; PDBTitle: crystal structure of glycogen debranching enzyme trex from2 sulfolobus solfataricus |
| 27 | c3m07A_ |  | Alignment | not modelled | 23.0 | 19 | PDB header: unknown function Chain: A: PDB Molecule: putative alpha amylase; PDBTitle: 1.4 angstrom resolution crystal structure of putative alpha2 amylase from salmonella typhimurium. |
| 28 | c1bagA_ |  | Alignment | not modelled | 22.9 | 14 | PDB header: alpha-amylase Chain: A: PDB Molecule: alpha-1,4-glucan-4-glucanohydrolase; PDBTitle: alpha-amylase from bacillus subtilis complexed with2 maltopentaose |
| | |  | | | | | Fold: EF Hand-like |

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|----|--------------------------|-----------|--------------|------|----|---|
| 29 | d1eg3a1 | Alignment | not modelled | 22.6 | 17 | Superfamily: EF-hand Family: EF-hand modules in multidomain proteins |
| 30 | c3rh3A | Alignment | not modelled | 22.2 | 13 | PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized duf3829-like protein; PDBTitle: crystal structure of an uncharacterized duf3829-like protein (bt 1908)2 from bacteroides thetaiotaomicron vpi-5482 at 2.10 a resolution |
| 31 | d1bf2a3 | Alignment | not modelled | 21.9 | 17 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 32 | d1br1b | Alignment | not modelled | 21.5 | 11 | Fold: EF Hand-like Superfamily: EF-hand Family: Calmodulin-like |
| 33 | c2wskA | Alignment | not modelled | 21.4 | 27 | PDB header: hydrolase Chain: A: PDB Molecule: glycogen debranching enzyme; PDBTitle: crystal structure of glycogen debranching enzyme glgx from2 escherichia coli k-12 |
| 34 | c1gjuA | Alignment | not modelled | 21.3 | 21 | PDB header: transferase Chain: A: PDB Molecule: maltodextrin glycosyltransferase; PDBTitle: maltosyltransferase from thermotoga maritima |
| 35 | d1ugla | Alignment | not modelled | 20.2 | 57 | Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Plant defensins |
| 36 | d1mxga2 | Alignment | not modelled | 19.4 | 17 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 37 | d1libia1 | Alignment | not modelled | 19.2 | 26 | Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: LIM domain |
| 38 | d1ua7a2 | Alignment | not modelled | 19.2 | 13 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 39 | c2x4bA | Alignment | not modelled | 19.2 | 21 | PDB header: hydrolase Chain: A: PDB Molecule: limit dextrinase; PDBTitle: barley limit dextrinase in complex with beta-cyclodextrin |
| 40 | d1m7xa3 | Alignment | not modelled | 18.9 | 22 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 41 | d1vlia2 | Alignment | not modelled | 18.6 | 7 | Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: NeuB-like |
| 42 | d1avaa2 | Alignment | not modelled | 18.4 | 29 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 43 | c3fmaA | Alignment | not modelled | 18.0 | 15 | PDB header: ligase Chain: A: PDB Molecule: dethiobiotin synthetase; PDBTitle: crystal structure of mycobacterium tuberculosis dethiobiotin2 synthetase complexed with 7,8 diaminopelargonic acid carbamate |
| 44 | d1cyga4 | Alignment | not modelled | 17.9 | 14 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 45 | c2taaA | Alignment | not modelled | 17.3 | 13 | PDB header: hydrolase (o-glycosyl) Chain: A: PDB Molecule: taka-amylase a; PDBTitle: structure and possible catalytic residues of taka-amylase a |
| 46 | d2bvca1 | Alignment | not modelled | 17.2 | 21 | Fold: beta-Grasp (ubiquitin-like) Superfamily: Glutamine synthetase, N-terminal domain Family: Glutamine synthetase, N-terminal domain |
| 47 | c1m7xC | Alignment | not modelled | 17.2 | 20 | PDB header: transferase Chain: C: PDB Molecule: 1,4-alpha-glucan branching enzyme; PDBTitle: the x-ray crystallographic structure of branching enzyme |
| 48 | c2k7bA | Alignment | not modelled | 17.1 | 13 | PDB header: metal binding protein Chain: A: PDB Molecule: calcium-binding protein 1; PDBTitle: nmr structure of mg2+-bound cabp1 n-domain |
| 49 | c2by0A | Alignment | not modelled | 16.6 | 23 | PDB header: hydrolase Chain: A: PDB Molecule: maltooligosyltrehalose trehalohydrolase; PDBTitle: is radiation damage dependent on the dose-rate used during2 macromolecular crystallography data collection |
| 50 | c2amiA | Alignment | not modelled | 16.4 | 11 | PDB header: cell cycle Chain: A: PDB Molecule: caltractin; PDBTitle: solution structure of the calcium-loaded n-terminal sensor2 domain of centrin |
| 51 | c1jaeA | Alignment | not modelled | 15.9 | 15 | PDB header: glycosidase Chain: A: PDB Molecule: alpha-amylase; PDBTitle: structure of tenebrio molitor larval alpha-amylase |
| 52 | d2fhfa5 | Alignment | not modelled | 15.8 | 13 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 53 | d2guya2 | Alignment | not modelled | 15.8 | 7 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 54 | c3edeB | Alignment | not modelled | 15.4 | 17 | PDB header: hydrolase Chain: B: PDB Molecule: cyclomalto-dextrinase; PDBTitle: structural base for cyclodextrin hydrolysis |
| 55 | d2r7ca1 | Alignment | not modelled | 15.3 | 22 | Fold: HIT-like Superfamily: Rotavirus NSP2 fragment, C-terminal domain Family: Rotavirus NSP2 fragment, C-terminal domain |
| | | | | | | PDB header: hydrolase |

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|----|-------------------------|-----------|--------------|------|----|---|
| 56 | c1jd7A_ | Alignment | not modelled | 15.0 | 13 | Chain: A: PDB Molecule: alpha-amylase; PDBTitle: crystal structure analysis of the mutant k300r of 2 pseudoalteromonas haloplactis alpha-amylase |
| 57 | c3sibA_ | Alignment | not modelled | 14.9 | 9 | PDB header: dna binding protein Chain: A: PDB Molecule: ure3-bp sequence specific dna binding protein; PDBTitle: crystal structure of ure3-binding protein, wild-type |
| 58 | d1h3ga3 | Alignment | not modelled | 14.9 | 16 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 59 | c1gviA_ | Alignment | not modelled | 14.9 | 17 | PDB header: hydrolase Chain: A: PDB Molecule: maltogenic amylase; PDBTitle: thermus maltogenic amylase in complex with beta-cd |
| 60 | d1v95a_ | Alignment | not modelled | 14.5 | 13 | Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS |
| 61 | c3nwcA_ | Alignment | not modelled | 14.2 | 24 | PDB header: cell cycle Chain: A: PDB Molecule: smc protein; PDBTitle: crystal structure of the pyrococcus furiosus smc protein hinge domain |
| 62 | c2k7cA_ | Alignment | not modelled | 14.1 | 18 | PDB header: metal binding protein Chain: A: PDB Molecule: calcium-binding protein 1; PDBTitle: nmr structure of mg2 +-bound cabp1 c-domain |
| 63 | d1u1ha2 | Alignment | not modelled | 13.8 | 15 | Fold: TIM beta/alpha-barrel Superfamily: UROD/MetE-like Family: Cobalamin-independent methionine synthase |
| 64 | d1c07a_ | Alignment | not modelled | 13.7 | 11 | Fold: EF Hand-like Superfamily: EF-hand Family: Eps15 homology domain (EH domain) |
| 65 | c3dhuC_ | Alignment | not modelled | 13.4 | 13 | PDB header: hydrolase Chain: C: PDB Molecule: alpha-amylase; PDBTitle: crystal structure of an alpha-amylase from lactobacillus2 plantarum |
| 66 | c2fcdA_ | Alignment | not modelled | 13.1 | 11 | PDB header: cell cycle Chain: A: PDB Molecule: myosin light chain 1; PDBTitle: solution structure of n-lobe myosin light chain from2 saccharomices cerevisiae |
| 67 | c1lwhA_ | Alignment | not modelled | 13.0 | 23 | PDB header: transferase Chain: A: PDB Molecule: 4-alpha-glucanotransferase; PDBTitle: crystal structure of t. maritima 4-alpha-glucanotransferase |
| 68 | c2dh3A_ | Alignment | not modelled | 13.0 | 11 | PDB header: transport protein, signaling protein Chain: A: PDB Molecule: 4f2 cell-surface antigen heavy chain; PDBTitle: crystal structure of human ed-4f2hc |
| 69 | c1e40A_ | Alignment | not modelled | 12.8 | 21 | PDB header: hydrolase Chain: A: PDB Molecule: alpha-amylase; PDBTitle: tris/maltotriose complex of chimaeric amylase from b.2 amyloliquefaciens and b. licheniformis at 2.2a |
| 70 | c1ehaA_ | Alignment | not modelled | 12.6 | 20 | PDB header: hydrolase Chain: A: PDB Molecule: glycosyltrehalose trehalohydrolase; PDBTitle: crystal structure of glycosyltrehalose trehalohydrolase2 from sulfobolus solfataricus |
| 71 | c1mwoA_ | Alignment | not modelled | 12.5 | 17 | PDB header: hydrolase Chain: A: PDB Molecule: alpha amylase; PDBTitle: crystal structure analysis of the hyperthermostable2 pyrococcus woesei alpha-amylase |
| 72 | c1ea9D_ | Alignment | not modelled | 12.5 | 14 | PDB header: hydrolase Chain: D: PDB Molecule: cyclomaltodextrinase; PDBTitle: cyclomaltodextrinase |
| 73 | d1ea9c3 | Alignment | not modelled | 12.4 | 14 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 74 | d1x1na1 | Alignment | not modelled | 12.3 | 24 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 75 | d1w7ib1 | Alignment | not modelled | 12.2 | 14 | Fold: EF Hand-like Superfamily: EF-hand Family: Calmodulin-like |
| 76 | d1gvia3 | Alignment | not modelled | 12.1 | 13 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 77 | c2bl0B_ | Alignment | not modelled | 12.1 | 18 | PDB header: muscle protein Chain: B: PDB Molecule: myosin regulatory light chain; PDBTitle: physarum polycephalum myosin ii regulatory domain |
| 78 | c3l7sA_ | Alignment | not modelled | 11.8 | 14 | PDB header: transferase Chain: A: PDB Molecule: 5-methyltetrahydropteroyltriglutamate--homocysteine PDBTitle: crystal structure of mete coordinated with zinc from streptococcus2 mutans |
| 79 | c2wcsA_ | Alignment | not modelled | 11.8 | 13 | PDB header: hydrolase Chain: A: PDB Molecule: alpha amylase, catalytic region; PDBTitle: crystal structure of debranching enzyme from nostoc2 punctiforme (npde) |
| 80 | d1uoka2 | Alignment | not modelled | 11.6 | 26 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 81 | c1jibA_ | Alignment | not modelled | 11.3 | 10 | PDB header: hydrolase Chain: A: PDB Molecule: neopullulanase; PDBTitle: complex of alpha-amylase ii (tva ii) from thermoactinomyces2 vulgaris r-47 with maltotetraose based on a crystal soaked3 with maltohexaose. |
| 82 | d1lwha2 | Alignment | not modelled | 11.0 | 25 | Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases |

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|----|-------------------------|-----------|--------------|------|--|
| | | | | | Family: Amylase, catalytic domain |
| 83 | c2aaaA_ | Alignment | not modelled | 11.0 | 10 PDB header: glycosidase Chain: A: PDB Molecule: alpha-amylase; PDBTitle: calcium binding in alpha-amylases: an x-ray diffraction2 study at 2.1 angstroms resolution of two enzymes from3 aspergillus |
| 84 | c3ghgD_ | Alignment | not modelled | 10.9 | 19 PDB header: blood clotting Chain: D: PDB Molecule: fibrinogen alpha chain; PDBTitle: crystal structure of human fibrinogen |
| 85 | d2cuja1 | Alignment | not modelled | 10.9 | 13 Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: SWIRM domain |
| 86 | dlj0ha3 | Alignment | not modelled | 10.9 | 17 Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 87 | dlwzla3 | Alignment | not modelled | 10.7 | 10 Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 88 | d1tn4a_ | Alignment | not modelled | 10.7 | 14 Fold: EF Hand-like Superfamily: EF-hand Family: Calmodulin-like |
| 89 | d1qhoa4 | Alignment | not modelled | 10.5 | 28 Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 90 | dleswa_ | Alignment | not modelled | 10.5 | 26 Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain |
| 91 | c3ogzA_ | Alignment | not modelled | 10.3 | 10 PDB header: transferase Chain: A: PDB Molecule: udp-sugar pyrophosphorylase; PDBTitle: protein structure of usp from l. major in apo-form |
| 92 | c3p09A_ | Alignment | not modelled | 10.3 | 12 PDB header: hydrolase Chain: A: PDB Molecule: beta-lactamase; PDBTitle: crystal structure of beta-lactamase from francisella tularensis |
| 93 | c3blpX_ | Alignment | not modelled | 10.2 | 13 PDB header: hydrolase Chain: X: PDB Molecule: alpha-amylase 1; PDBTitle: role of aromatic residues in human salivary alpha-amylase |
| 94 | d2b4jc1 | Alignment | not modelled | 10.1 | 14 Fold: N-cbl like Superfamily: HIV integrase-binding domain Family: HIV integrase-binding domain |
| 95 | c2jmiA_ | Alignment | not modelled | 10.1 | 30 PDB header: protein binding Chain: A: PDB Molecule: protein yng1; PDBTitle: nmr solution structure of phd finger fragment of yeast yng12 protein in free state |
| 96 | c3ey5A_ | Alignment | not modelled | 10.0 | 13 PDB header: transferase Chain: A: PDB Molecule: acetyltransferase-like, gnat family; PDBTitle: putative acetyltransferase from gnat family from bacteroides2 thetaiotaomicron. |
| 97 | c2jmlA_ | Alignment | not modelled | 9.9 | 18 PDB header: transcription Chain: A: PDB Molecule: dna binding domain/transcriptional regulator; PDBTitle: solution structure of the n-terminal domain of cara repressor |
| 98 | c2xtdB_ | Alignment | not modelled | 9.9 | 17 PDB header: transcription Chain: B: PDB Molecule: tbl1 f-box-like/wd repeat-containing protein tbl1x; PDBTitle: structure of the tbl1 tetramerisation domain |
| 99 | c2yx0A_ | Alignment | not modelled | 9.8 | 12 PDB header: metal binding protein Chain: A: PDB Molecule: radical sam enzyme; PDBTitle: crystal structure of p. horikoshii tyw1 |