

# Phyre2

|               |                              |
|---------------|------------------------------|
| Email         | l.a.kelley@imperial.ac.uk    |
| Description   | P08506                       |
| Date          | Wed Jan 25 15:20:14 GMT 2012 |
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Detailed template information

| #  | Template                | Alignment Coverage   | 3D Model  | Confidence | % i.d. | Template Information   |
|----|-------------------------|--|---|------------|--------|--|
| 1  | <a href="#">c3it9B_</a> | <br>Alignment   |    | 100.0      | 100    | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> d-alanyl-d-alanine carboxypeptidase dac;<br><b>PDBTitle:</b> crystal structure of penicillin-binding protein 6 (pbp6)2 from e. coli in apo state                                       |
| 2  | <a href="#">c1z6fA_</a> | <br>Alignment   |    | 100.0      | 64     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 5;<br><b>PDBTitle:</b> crystal structure of penicillin-binding protein 5 from e. coli in2 complex with a boronic acid inhibitor                             |
| 3  | <a href="#">c3a3jA_</a> | <br>Alignment   |    | 100.0      | 54     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> pbp5;<br><b>PDBTitle:</b> crystal structures of penicillin binding protein 5 from2 haemophilus influenzae  |
| 4  | <a href="#">c1xp4C_</a> | <br>Alignment   |    | 100.0      | 25     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> d-alanyl-d-alanine carboxypeptidase;<br><b>PDBTitle:</b> crystal structure of a peptidoglycan synthesis regulatory2 factor (pbp3) from streptococcus pneumoniae                        |
| 5  | <a href="#">c3mfdB_</a> | <br>Alignment |  | 100.0      | 31     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> d-alanyl-d-alanine carboxypeptidase dacb;<br><b>PDBTitle:</b> the structure of the beta-lactamase superfamily domain of d-alanyl-d-2 alanine carboxypeptidase from bacillus subtilis   |
| 6  | <a href="#">c1tvfA_</a> | <br>Alignment |  | 100.0      | 24     | <b>PDB header:</b> penicillin binding<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin binding protein 4;<br><b>PDBTitle:</b> crystal structure of penicillin-binding protein 4 (pbp4)2 from staphylococcus aureus  |
| 7  | <a href="#">c3humB_</a> | <br>Alignment |  | 100.0      | 24     | <b>PDB header:</b> hydrolase/antibiotics<br><b>Chain:</b> B: <b>PDB Molecule:</b> penicillin-binding protein 4;<br><b>PDBTitle:</b> crystal structure of penicillin binding protein 4 from2 staphylococcus aureus col in complex with cefotaxime             |
| 8  | <a href="#">d1tvfa2</a> | <br>Alignment |  | 100.0      | 28     | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase  |
| 9  | <a href="#">d3beca2</a> | <br>Alignment |  | 100.0      | 67     | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase  |
| 10 | <a href="#">d1xp4a2</a> | <br>Alignment |  | 100.0      | 28     | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase  |
| 11 | <a href="#">c2bcfA_</a> | <br>Alignment |  | 100.0      | 30     | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> probable d-alanyl-d-alanine carboxypeptidase<br><b>PDBTitle:</b> crystal structure of a evolved putative penicillin-binding2 protein homolog, rv2911, from mycobacterium tuberculosis. |

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|----|-------------------------|-----------|--------------|-------|----|---|
| 12 | <a href="#">d1es5a_</a> | Alignment |              | 100.0 | 33 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 13 | <a href="#">c2v20A_</a> | Alignment |              | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase tem;<br><b>PDBTitle:</b> structure of a tem-1 beta-lactamase insertant2 allosterically regulated by kanamycin and anions. complex3 with sulfate.   |
| 14 | <a href="#">d1m40a_</a> | Alignment |              | 100.0 | 16 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 15 | <a href="#">d1n9ba_</a> | Alignment |              | 100.0 | 19 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 16 | <a href="#">c2j7vA_</a> | Alignment |              | 100.0 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> tlI2115 protein;<br><b>PDBTitle:</b> structure of pbp-a   |
| 17 | <a href="#">c3qhyA_</a> | Alignment |              | 100.0 | 16 | <b>PDB header:</b> hydrolase/hydrolase inhibitor<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> structural, thermodynamic and kinetic analysis of the picomolar2 binding affinity interaction of the beta-lactamase inhibitor protein-3 ii (blip-ii) with class a beta-lactamases |
| 18 | <a href="#">d1dy6a_</a> | Alignment |              | 100.0 | 15 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 19 | <a href="#">d1o7ea_</a> | Alignment |              | 100.0 | 19 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 20 | <a href="#">c3cg5A_</a> | Alignment |              | 100.0 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of the covalent adduct formed between tb2 b-lactamase and clavulanate   |
| 21 | <a href="#">c3dw0B_</a> | Alignment | not modelled | 100.0 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> class a carbapenemase kpc-2;<br><b>PDBTitle:</b> crystal structure of the class a carbapenemase kpc-2 at 1.62 angstrom resolution   |
| 22 | <a href="#">d1hzoa_</a> | Alignment | not modelled | 100.0 | 18 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 23 | <a href="#">c3p09B_</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of beta-lactamase from francisella tularensis   |
| 24 | <a href="#">c1i2sa_</a> | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> beta-lactamase from bacillus licheniformis bs3  |
| 25 | <a href="#">d1i2sa_</a> | Alignment | not modelled | 100.0 | 15 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 26 | <a href="#">d1iysa_</a> | Alignment | not modelled | 100.0 | 21 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 27 | <a href="#">c3cjmA_</a> | Alignment | not modelled | 100.0 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> putative beta-lactamase;<br><b>PDBTitle:</b> crystal structure of putative beta-lactamase (np_815223.1) from2 enterococcus faecalis v583 at 1.50 a resolution   |
| 28 | <a href="#">c2ov5A_</a> | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> carbapenemase;<br><b>PDBTitle:</b> crystal structure of the kpc-2 carbapenemase   |

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| 29 | <a href="#">d2cc1a1</a> | Alignment | not modelled | 100.0 | 19 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 30 | <a href="#">d1bsga</a>  | Alignment | not modelled | 100.0 | 14 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 31 | <a href="#">d1buea</a>  | Alignment | not modelled | 100.0 | 18 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 32 | <a href="#">c2wuqA</a>  | Alignment | not modelled | 100.0 | 19 | <b>PDB header:</b> transcription<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase regulatory protein blab;<br><b>PDBTitle:</b> crystal structure of blab protein from streptomyces cacaoi  |
| 33 | <a href="#">d1g6aa</a>  | Alignment | not modelled | 100.0 | 15 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 34 | <a href="#">c2qpnA</a>  | Alignment | not modelled | 100.0 | 15 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase ges-1;<br><b>PDBTitle:</b> ges-1 beta-lactamase  |
| 35 | <a href="#">c3lezA</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of a halotolerant bacterial beta-lactamase  |
| 36 | <a href="#">c3p09A</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of beta-lactamase from francisella tularensis   |
| 37 | <a href="#">c1w7fB</a>  | Alignment | not modelled | 100.0 | 16 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of the class a beta-lactamase bs32 inhibited with isocitrate  |
| 38 | <a href="#">c2wuqB</a>  | Alignment | not modelled | 100.0 | 18 | <b>PDB header:</b> transcription<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-lactamase regulatory protein blab;<br><b>PDBTitle:</b> crystal structure of blab protein from streptomyces cacaoi  |
| 39 | <a href="#">d1alga</a>  | Alignment | not modelled | 100.0 | 20 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 40 | <a href="#">d1djaa</a>  | Alignment | not modelled | 100.0 | 18 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 41 | <a href="#">d1e25a</a>  | Alignment | not modelled | 100.0 | 17 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 42 | <a href="#">c2xftA</a>  | Alignment | not modelled | 100.0 | 14 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> orf12;<br><b>PDBTitle:</b> structural and mechanistic studies on a cephalosporin esterase from2 the clavulanic acid biosynthesis pathway  |
| 43 | <a href="#">c3a3eB</a>  | Alignment | not modelled | 99.9  | 23 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> penicillin-binding protein 4;<br><b>PDBTitle:</b> crystal structure of penicillin binding protein 4 (dacb)2 from haemophilus influenzae, complexed with novel beta-3 lactam (cmv) |
| 44 | <a href="#">d1w5da1</a> | Alignment | not modelled | 99.9  | 24 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> Dac-like  |
| 45 | <a href="#">d1w79a1</a> | Alignment | not modelled | 99.9  | 24 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> Dac-like  |
| 46 | <a href="#">d2ex2a1</a> | Alignment | not modelled | 99.8  | 21 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> Dac-like  |
| 47 | <a href="#">d3beca1</a> | Alignment | not modelled | 99.8  | 55 | <b>Fold:</b> Penicillin-binding protein associated domain<br><b>Superfamily:</b> Penicillin-binding protein associated domain<br><b>Family:</b> PBP5 C-terminal domain-like   |
| 48 | <a href="#">c3i7jB</a>  | Alignment | not modelled | 99.6  | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-lactamase mb2281c;<br><b>PDBTitle:</b> crystal structure of a beta-lactamase (mb2281c) from2 mycobacterium bovis, northeast structural genomics3 consortium target mbr246    |
| 49 | <a href="#">d1nrfa</a>  | Alignment | not modelled | 99.6  | 15 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 50 | <a href="#">d1xa1a</a>  | Alignment | not modelled | 99.6  | 17 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 51 | <a href="#">c2iwdA</a>  | Alignment | not modelled | 99.5  | 11 | <b>PDB header:</b> antibiotic resistance<br><b>Chain:</b> A: <b>PDB Molecule:</b> methicillin resistance mecR1 protein;<br><b>PDBTitle:</b> oxacilloyl-acylated mecR1 extracellular antibiotic-sensor2 domain.  |
| 52 | <a href="#">c2jc7A</a>  | Alignment | not modelled | 99.4  | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase oxa-24;<br><b>PDBTitle:</b> the crystal structure of the carbapenemase oxa-24 reveals2 new insights into the mechanism of carbapenem-hydrolysis                    |
| 53 | <a href="#">d1k38a</a>  | Alignment | not modelled | 99.3  | 14 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 54 | <a href="#">c3hbrD</a>  | Alignment | not modelled | 99.3  | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> D: <b>PDB Molecule:</b> oxa-48;<br><b>PDBTitle:</b> crystal structure of oxa-48 beta-lactamase  |
|    |                         |           |              |       |    | <b>PDB header:</b> hydrolase  |

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|----|-------------------------|-----------|--------------|------|----|---|
| 55 | <a href="#">c3if6C_</a> | Alignment | not modelled | 99.2 | 19 | <b>Chain:</b> C: <b>PDB Molecule:</b> oxa-46 oxacillinase;<br><b>PDBTitle:</b> crystal structure of oxa-46 beta-lactamase from p.2 aeruginosa   |
| 56 | <a href="#">d1vqqa3</a> | Alignment | not modelled | 99.2 | 15 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 57 | <a href="#">c3pbqA_</a> | Alignment | not modelled | 99.1 | 23 | <b>PDB header:</b> hydrolase/antibiotic<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 3;<br><b>PDBTitle:</b> crystal structure of pbp3 complexed with imipenem  |
| 58 | <a href="#">d1k55a_</a> | Alignment | not modelled | 99.1 | 19 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 59 | <a href="#">c3oc2A_</a> | Alignment | not modelled | 99.1 | 29 | <b>PDB header:</b> penicillin-binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 3;<br><b>PDBTitle:</b> crystal structure of penicillin-binding protein 3 from pseudomonas2 aeruginosa   |
| 60 | <a href="#">c3lo7A_</a> | Alignment | not modelled | 99.1 | 22 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein a;<br><b>PDBTitle:</b> crystal structure of pbpa from mycobacterium tuberculosis   |
| 61 | <a href="#">d1xp4a1</a> | Alignment | not modelled | 99.1 | 19 | <b>Fold:</b> Penicillin-binding protein associated domain<br><b>Superfamily:</b> Penicillin-binding protein associated domain<br><b>Family:</b> PBP5 C-terminal domain-like   |
| 62 | <a href="#">c2qmiH_</a> | Alignment | not modelled | 99.0 | 17 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> H: <b>PDB Molecule:</b> pbp related beta-lactamase;<br><b>PDBTitle:</b> structure of the octameric penicillin-binding protein2 homologue from pyrococcus abyssi   |
| 63 | <a href="#">d1yqsa1</a> | Alignment | not modelled | 99.0 | 22 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 64 | <a href="#">d1ci9a_</a> | Alignment | not modelled | 99.0 | 20 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 65 | <a href="#">d1pyya4</a> | Alignment | not modelled | 99.0 | 17 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 66 | <a href="#">c2qz6A_</a> | Alignment | not modelled | 99.0 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> first crystal structure of a psychrophile class c beta-2 lactamase  |
| 67 | <a href="#">c1qmfA_</a> | Alignment | not modelled | 99.0 | 19 | <b>PDB header:</b> peptidoglycan synthesis<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 2x;<br><b>PDBTitle:</b> penicillin-binding protein 2x (pbp-2x) acyl-enzyme complex   |
| 68 | <a href="#">c2wadB_</a> | Alignment | not modelled | 99.0 | 18 | <b>PDB header:</b> peptide binding protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> penicillin-binding protein 2b;<br><b>PDBTitle:</b> penicillin-binding protein 2b (pbp-2b) from streptococcus2 pneumoniae (strain 5204)  |
| 69 | <a href="#">c3hleA_</a> | Alignment | not modelled | 98.9 | 21 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> transesterase;<br><b>PDBTitle:</b> simvastatin synthase (lovd), from aspergillus terreus, s5 mutant, s76a2 mutant, complex with monacolin j acid  |
| 70 | <a href="#">c3fwlA_</a> | Alignment | not modelled | 98.9 | 18 | <b>PDB header:</b> transferase, hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 1b;<br><b>PDBTitle:</b> crystal structure of the full-length transglycosylase pbp1b2 from escherichia coli  |
| 71 | <a href="#">d2dcfa1</a> | Alignment | not modelled | 98.9 | 28 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 72 | <a href="#">c3equB_</a> | Alignment | not modelled | 98.9 | 23 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> B: <b>PDB Molecule:</b> penicillin-binding protein 2;<br><b>PDBTitle:</b> crystal structure of penicillin-binding protein 2 from neisseria2 gonorrhoeae  |
| 73 | <a href="#">c3ue3A_</a> | Alignment | not modelled | 98.9 | 25 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> septum formation, penicillin binding protein 3,<br><b>PDBTitle:</b> crystal structure of acinetobacter baumannii pbp3   |
| 74 | <a href="#">d1rgya_</a> | Alignment | not modelled | 98.9 | 26 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 75 | <a href="#">c3tg9A_</a> | Alignment | not modelled | 98.9 | 17 | <b>PDB header:</b> penicillin binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein;<br><b>PDBTitle:</b> the crystal structure of penicillin binding protein from bacillus2 halodurans  |
| 76 | <a href="#">d1rp5a4</a> | Alignment | not modelled | 98.8 | 16 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 77 | <a href="#">c1mwuA_</a> | Alignment | not modelled | 98.8 | 16 | <b>PDB header:</b> biosynthetic protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 2a;<br><b>PDBTitle:</b> structure of methicillin acyl-penicillin binding protein 2a2 from methicillin resistant staphylococcus aureus strain3 27r at 2.60 a resolution. |
| 78 | <a href="#">c2wzzA_</a> | Alignment | not modelled | 98.8 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> amp-c beta-lactamase (pseudomonas aeruginosa)in complex2 with compound m-03   |
| 79 | <a href="#">d1m6ka_</a> | Alignment | not modelled | 98.8 | 14 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 80 | <a href="#">d1ei5a3</a> | Alignment | not modelled | 98.8 | 14 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 81 | <a href="#">d1onha_</a> | Alignment | not modelled | 98.8 | 25 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like   |

|     |                         |           |              |      |    |   |
|-----|-------------------------|-----------|--------------|------|----|---|
|     |                         |           |              |      |    | <b>Family:</b> beta-Lactamase/D-ala carboxypeptidase  |
| 82  | <a href="#">d2hdsa1</a> | Alignment | not modelled | 98.7 | 21 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 83  | <a href="#">d2drwa1</a> | Alignment | not modelled | 98.7 | 21 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 84  | <a href="#">c1ei5A</a>  | Alignment | not modelled | 98.7 | 18 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> d-aminopeptidase;<br><b>PDBTitle:</b> crystal structure of a d-aminopeptidase from ochrobactrum2 anthropi   |
| 85  | <a href="#">c1zkjA</a>  | Alignment | not modelled | 98.7 | 19 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> extended-spectrum beta-lactamase;<br><b>PDBTitle:</b> structural basis for the extended substrate spectrum of cmv-2 10, a plasmid-encoded class c beta-lactamase  |
| 86  | <a href="#">c3o3vB</a>  | Alignment | not modelled | 98.7 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> beta-lactamase;<br><b>PDBTitle:</b> crystal structure of clbp peptidase domain  |
| 87  | <a href="#">c3udiA</a>  | Alignment | not modelled | 98.6 | 15 | <b>PDB header:</b> penicillin-binding protein/antibiotic<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 1a;<br><b>PDBTitle:</b> crystal structure of acinetobacter baumannii pbp1a in complex with2 penicillin g   |
| 88  | <a href="#">c3ozhA</a>  | Alignment | not modelled | 98.5 | 22 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> beta-lactamase/d-alanine carboxypeptidase;<br><b>PDBTitle:</b> crystal structure of beta-lactamase/d-alanine carboxypeptidase from2 yersinia pestis   |
| 89  | <a href="#">d2c5wb1</a> | Alignment | not modelled | 98.4 | 17 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 90  | <a href="#">c3dwcC</a>  | Alignment | not modelled | 98.1 | 19 | <b>PDB header:</b> transferase<br><b>Chain:</b> C: <b>PDB Molecule:</b> penicillin-binding protein 2;<br><b>PDBTitle:</b> identification of dynamic structural motifs involved in2 peptidoglycan glycosyltransfer   |
| 91  | <a href="#">d2bg1a1</a> | Alignment | not modelled | 98.1 | 20 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 92  | <a href="#">d2olua2</a> | Alignment | not modelled | 98.0 | 19 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 93  | <a href="#">c2olvA</a>  | Alignment | not modelled | 98.0 | 16 | <b>PDB header:</b> transferase<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 2;<br><b>PDBTitle:</b> structural insight into the transglycosylation step of bacterial cell2 wall biosynthesis : donor ligand complex   |
| 94  | <a href="#">c1pmdA</a>  | Alignment | not modelled | 98.0 | 12 | <b>PDB header:</b> peptidoglycan synthesis<br><b>Chain:</b> A: <b>PDB Molecule:</b> peptidoglycan synthesis multifunctional enzyme;<br><b>PDBTitle:</b> penicillin-binding protein 2x (pbp-2x)  |
| 95  | <a href="#">c2bg1A</a>  | Alignment | not modelled | 97.9 | 23 | <b>PDB header:</b> peptidoglycan<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 1b;<br><b>PDBTitle:</b> active site restructuring regulates ligand recognition in2 classa penicillin-binding proteins (pbps)   |
| 96  | <a href="#">d1k25a4</a> | Alignment | not modelled | 97.7 | 21 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> beta-Lactamase/D-ala carboxypeptidase   |
| 97  | <a href="#">c2jciA</a>  | Alignment | not modelled | 97.6 | 21 | <b>PDB header:</b> drug-binding protein<br><b>Chain:</b> A: <b>PDB Molecule:</b> penicillin-binding protein 1b;<br><b>PDBTitle:</b> structural insights into the catalytic mechanism and the2 role of streptococcus pneumoniae pbp1b  |
| 98  | <a href="#">c2pbyB</a>  | Alignment | not modelled | 51.9 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> B: <b>PDB Molecule:</b> glutaminase;<br><b>PDBTitle:</b> probable glutaminase from geobacillus kaustophilus hta426  |
| 99  | <a href="#">d1u60a</a>  | Alignment | not modelled | 50.8 | 18 | <b>Fold:</b> beta-lactamase/transpeptidase-like<br><b>Superfamily:</b> beta-lactamase/transpeptidase-like<br><b>Family:</b> Glutaminase   |
| 100 | <a href="#">c3czdA</a>  | Alignment | not modelled | 44.5 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> glutaminase kidney isoform;<br><b>PDBTitle:</b> crystal structure of human glutaminase in complex with l-glutamate  |
| 101 | <a href="#">c2dfwA</a>  | Alignment | not modelled | 40.2 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> salt-tolerant glutaminase;<br><b>PDBTitle:</b> crystal structure of a major fragment of the salt-tolerant2 glutaminase from micrococcus luteus k-3  |
| 102 | <a href="#">c3ih9A</a>  | Alignment | not modelled | 38.2 | 21 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> salt-tolerant glutaminase;<br><b>PDBTitle:</b> crystal structure analysis of mglu in its tris form  |
| 103 | <a href="#">c3nqyA</a>  | Alignment | not modelled | 34.2 | 26 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> A: <b>PDB Molecule:</b> secreted metalloprotease mcp02;<br><b>PDBTitle:</b> crystal structure of the autoprocessed complex of vibriolysin mcp-022 with a single point mutation e346a  |
| 104 | <a href="#">c3uo9B</a>  | Alignment | not modelled | 33.6 | 13 | <b>PDB header:</b> hydrolase/hydrolase inhibitor<br><b>Chain:</b> B: <b>PDB Molecule:</b> glutaminase kidney isoform, mitochondrial;<br><b>PDBTitle:</b> crystal structure of human gac in complex with glutamate and bptes   |
| 105 | <a href="#">d2jova1</a> | Alignment | not modelled | 33.4 | 21 | <b>Fold:</b> CPE0013-like<br><b>Superfamily:</b> CPE0013-like<br><b>Family:</b> CPE0013-like  |
| 106 | <a href="#">c3ss4C</a>  | Alignment | not modelled | 33.2 | 13 | <b>PDB header:</b> hydrolase<br><b>Chain:</b> C: <b>PDB Molecule:</b> glutaminase c;<br><b>PDBTitle:</b> crystal structure of mouse glutaminase c, phosphate-bound form<br><b>PDB header:</b> oxidoreductase<br><b>Chain:</b> E: <b>PDB Molecule:</b> putative thiol-disulfide isomerase or |

|     |                         |           |              |      |    |  |
|-----|-------------------------|-----------|--------------|------|----|--|
| 107 | <a href="#">c3l9vE_</a> | Alignment | not modelled | 23.0 | 12 | thioredoxin;<br><b>PDBTitle:</b> crystal structure of salmonella enterica serovar typhimurium srga |
|-----|-------------------------|-----------|--------------|------|----|--|