

1000

628

1000

793

725

1000

988

999

1000

801

1000

1000

Figure S7. Phylogenetic tree of carbapenemases from pathogens and some β-lactamases from *Streptomyces* species on the basis of their amino acid sequences. The tree was constructed by using ClustalX2 as described previously [5]. GenBank accession numbers and derived bacterial species are shown in the figure. The bootstrap probabilities are shown at branching nodes. Class C β-lactamase from *Actinosynnema mirum* (Amir\_3080) was used as outgroup.　The antibiotic producers are marked with red square.