

S3 Table. A list of KEGG orthology-based antimicrobial resistant (AMR) genes.

Evidence	KEGG orthology
(Protein BLAST) NCBI Beta-lactamase resources ⁺	56
(Protein BLAST) PRJNA313047: Bacterial Antimicrobial Resistance Reference Gene Database	187
KEGG BRITE: Antimicrobial resistance	237
KEGG pathway: beta-Lactam resistance, Vancomycin resistance, CAMP resistance, Penicillin	184
KEGG module: penicillin-binding protein, multidrug efflux system, antibiotic resistance	212
KEGG orthology: penicillin-binding protein, multidrug efflux system, antibiotic resistance	179
PubMed MeSH: "Drug Resistance, Bacterial", "beta-lactamases" reported in KEGG	202
Total	537

⁺: NCBI Beta-lactamase resources <https://www.ncbi.nlm.nih.gov/pathogens/beta-lactamase-data-resources/>

^{*}: PRJNA313047: Bacterial Antimicrobial Resistance Reference Gene Database <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA313047>

This resource includes the following: CARD[8], Lahey, Pasteur Institute Beta Lactamases, ResFinder[9], NCBI AMR FTP, NCBI AMR HMMs.