



- Aminoacyl tRNA
- Arginine and proline metabolism
- Aromatic amino acid metabolism
- Aromatics degradataion
- ATP synthesis
- Bacterial secretion system
- Branched-chain amino acid metabolism
- Carbon fixation
- Central carbohydrate metabolism
- Cofactor and vitamin biosynthesis
- Cysteine and methionine metabolism
- DNA polymerase
- Fatty acid metabolism
- Glycosaminoglycan metabolism
- Histidine metabolism
- Lipopolysaccharide metabolism
- Lysine metabolism
- Metallic cation, iron-siderophore and vitamin B12 transport system
- Methane metabolism
- Nitrogen metabolism
- Nucleotide sugar
- Other amino acid metabolism
- Other carbohydrate metabolism
- Other terpenoid biosynthesis
- Pathogenicity
- Peptide and nickel transport system
- Phosphate and amino acid transport system
- Polyamine biosynthesis
- Purine metabolism
- Pyrimidine metabolism
- Ribosome
- RNA polymerase
- Saccharide and polyol transport system
- Serine and threonine metabolism
- Sugar metabolism
- Sulfur metabolism
- Terpenoid backbone biosynthesis
- Two-component regulatory system

**Figure S2**