

Additional File4 – The average PPV rate of *E.coli* pathways based on the 2nd level of KEGG orthology.

The pathways ($|G(P)| \geq 5$) are calculated with $system(error) = 0.06, K = 5, \alpha = 380, \beta = 5, \gamma = 10$.

CM: Carbohydrate Metabolism, AAM: Amino Acid Metabolism, BPNP: Biosynthesis of Polyketides and Nonribosomal Peptides, BSM: Biosynthesis of Secondary Metabolism, CELLM: Cell motility, EM: Energy Metabolism, FSD: Folding Sorting and Degradation, GBM: Glycan Biosynthesis and Metabolism, LM: Lipid Metabolism, MT: Membrane Transport MCV: Metabolism of cofactors and Vitamins, MOAA: Metabolism of Other Amino Acids, NM: Nucleotide Metabolism RR: Replication and Repair, ST: Signal Transduction, TSC: Transcription, TSL: Translation, XBM: Xenobiotics Biodegradation and Metabolism.

