

Table S7: Pathways per Subsystem.

Amino Acid Metabolism	Central Metabolism	Nucleotide Metabolism	Others	Vitamins and Cofactor Metabolism	Cell Wall Metabolism
Alanine Metabolism	Entner-Doudouff Pathway	ATP de novo Synthesis	Nitrite Metabolism Other reactions	Biotin Biosynthesis	Aminosugar Metabolism
Asparagine Metabolism	Glycolysis	dATP Biosynthesis		Folate Biosynthesis	Fatty Acid Synthesis
Aspartate Metabolism	Glyoxylate Metabolism	dCTP Biosynthesis		Heme biosynthesis	Fucose Biosynthesis
Chorismate Metabolism	Pentose-Phosphate-Pathway	dGTP Biosynthesis		Isoprenoid Biosynthesis	Glycerolipid Synthesis
Glutamate Metabolism	Respiratory chain	dTTP Biosynthesis		Menaquinone Biosynthesis	LPS Biosynthesis
Glutamine Biosynthesis	ROS detoxification	dUTP Biosynthesis		Nicotinate Biosynthesis	Peptidoglycan Biosynthesis
Glycine Metabolism	TCA cycle	GTP de novo Synthesis		Pantothenate/ CoA Biosynthesis	
Isoleucine Metabolism	Urea Cycle	IMP Synthesis		Riboflavin Metabolism	
Leucine Metabolism		Nucleotide Interconversion		Spermidine Biosynthesis	
Lysine Biosynthesis		Purine metabolism		THF Metabolism	
Methionine Metabolism		Salvage pathway of ATP		Thiamin Biosynthesis	
Methionine Salvage Pathway		Salvage pathway of GTP		Ubiquinone Biosynthesis	
Phenylalanine Biosynthesis		Salvage pathway of XTP			
Phenylalanine Biosynthesis		UTP/CTP de novo Synthesis			
Proline Metabolism					
Serine Metabolism					
Threonine Biosynthesis					
Tryptophan Biosynthesis					
Tyrosine Biosynthesis					
Valine Metabolism					