	mRNA	Protein
lowMg Exp	1. Ribosome 2. Purine metabolism 3. ABC transporters 4. Pyrimidine metabolism 5. Aminoacyl−tRNA biosynthesis	
highMg Exp	1. Ribosome 2. ABC transporters 3. Oxidative phosphorylation 4. Valine, leucine and isoleucine biosynthesis 5. Phenylalanine, tyrosine and tryptophan biosynthesis	1. Two−component system 2. Butanoate metabolism 3. Valine, leucine and isoleucine degradation 4. Terpenoid backbone biosynthesis 5. Amino sugar and nucleotide sugar metabolism
highNa Exp	1. Flagellar assembly 2. ABC transporters 3. Pentose phosphate pathway 4. Glycine, serine and threonine metabolism 5. Two−component system	1. Two−component system 2. Purine metabolism 3. ABC transporters 4. Pyrimidine metabolism 5. Ribosome
glycerol Exp	1. Ribosome 2. Purine metabolism 3. ABC transporters 4. Aminoacyl−tRNA biosynthesis 5. Pyrimidine metabolism	1. Aminoacyl−tRNA biosynthesis 2. Pyrimidine metabolism 3. Phenylalanine, tyrosine and tryptophan biosynthesis 4. Purine metabolism 5. Cysteine and methionine metabolism
gluconate Exp		1. Ribosome
lactate Exp	1. Pyruvate metabolism 2. Phosphotransferase system (PTS) 3. Glycolysis / Gluconeogenesis 4. Fructose and mannose metabolism 5. Arginine and proline metabolism	1. ABC transporters 2. Citrate cycle (TCA cycle) 3. Pyruvate metabolism 4. Ribosome 5. Butanoate metabolism
lowMg Sta	1. Oxidative phosphorylation 2. Pyruvate metabolism 3. Citrate cycle (TCA cycle) 4. Arginine and proline metabolism 5. Protein export	
highMg Sta	1. Ribosome 2. ABC transporters 3. Purine metabolism 4. Glycine, serine and threonine metabolism 5. Valine, leucine and isoleucine biosynthesis	1. Flagellar assembly
highNa Sta	1. Pyruvate metabolism 2. Amino sugar and nucleotide sugar metabolism 3. Glycolysis / Gluconeogenesis 4. Citrate cycle (TCA cycle) 5. Fructose and mannose metabolism	1. Ribosome 2. Alanine, aspartate and glutamate metabolism 3. Purine metabolism 4. Phenylalanine, tyrosine and tryptophan biosynthesis 5. Aminoacyl−tRNA biosynthesis
glycerol Sta	1. Arginine and proline metabolism 2. ABC transporters 3. Aminoacyl−tRNA biosynthesis 4. Starch and sucrose metabolism	1. Biosynthesis of siderophore group nonribosomal peptides 2. Arginine and proline metabolism
gluconate Sta		1. Pentose and glucuronate interconversions 2. Pentose phosphate pathway 3. ABC transporters
lactate Sta	1. Oxidative phosphorylation 2. Ribosome 3. Glycine, serine and threonine metabolism 4. Valine, leucine and isoleucine biosynthesis 5. Citrate cycle (TCA cycle)	1. Citrate cycle (TCA cycle) 2. Propanoate metabolism 3. ABC transporters 4. Butanoate metabolism 5. Oxidative phosphorylation