

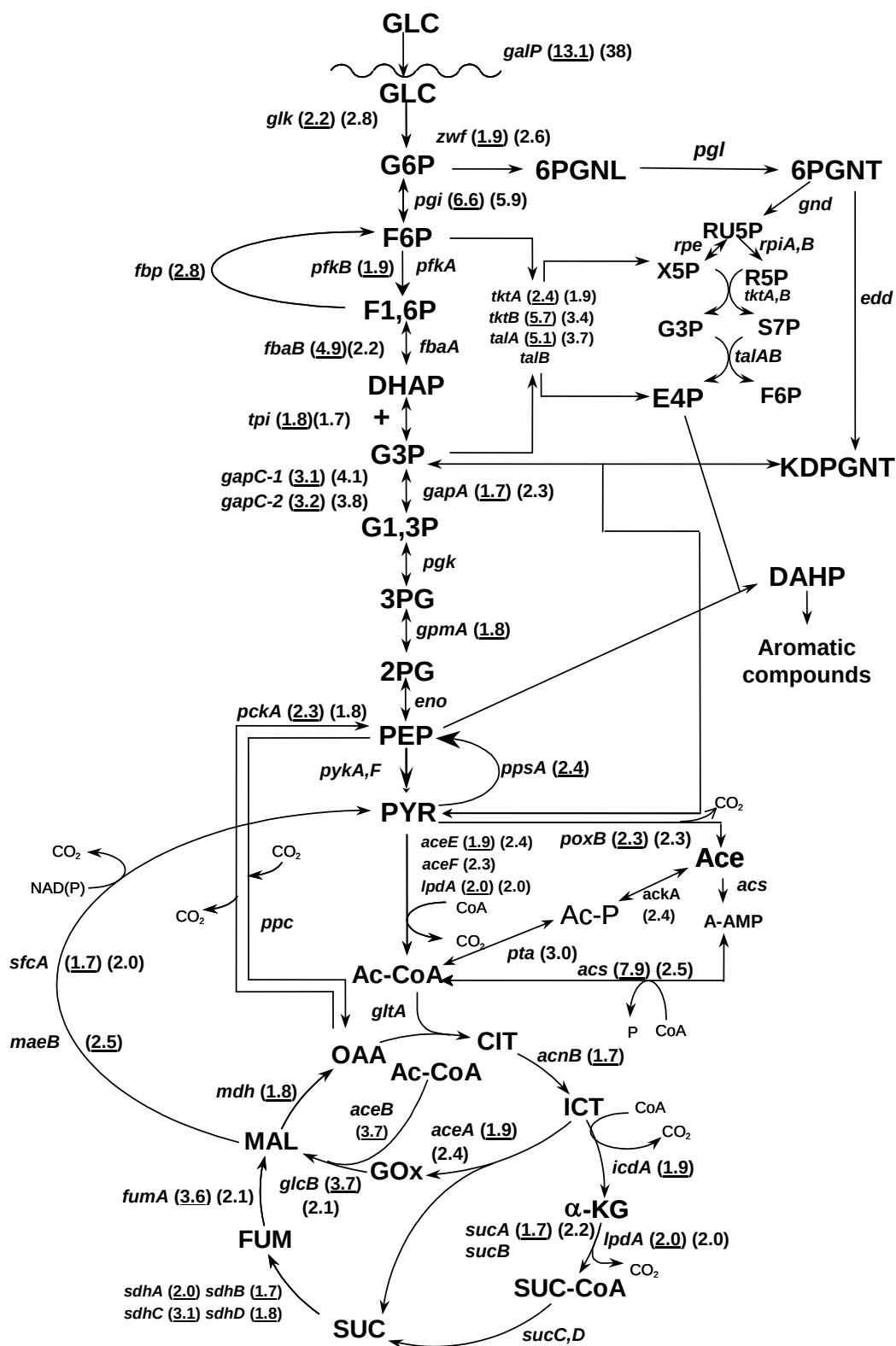


Figure S1. Central metabolic routes showing key metabolites and the genes involved in their transformation. RT-qPCR values of those upregulated genes (1.7-fold or higher) are shown close to the gene underlined in parenthesis for PB12 and in parenthesis for PB13; see Table S3 in additional file 4 for the complete set of RT-qPCR values. The abbreviations are as follows: glucose (GLC), glucose-6-phosphate (G6P), fructose-6-phosphate (F6P), fructose-1,6-phosphate (F1,6P), dihydroxy-acetone phosphate (DHAP), glyceraldehyde-3-phosphate (G3P), glyceraldehyde-1,3-phosphate (G1,3P), 3-phosphoglycerate (3PG), 2-phosphoglycerate (2PG), phosphoenolpyruvate (PEP), pyruvate (PYR), acetyl-CoA (AcCoA), acetyl phosphate (Ac-P), acetyl-AMP (A-AMP), citrate (CIT), isocitrate (ICT), glyoxylate (Gox), α -ketoglutarate (α -KG), succinyl-coenzyme A (SUC-CoA), succinate (SUC), fumarate (FUM), malate (MAL), oxaloacetate (OAA), 6-phosphogluconolactone (6PGNL), 6-phosphogluconate (6PGNT), ribulose-5-phosphate (RU5P), ribose-5-phosphate (R5P), xylulose-5-phosphate (X5P), pseudoheptulose-7-phosphate (S7P), erythrose-4-phosphate (E4P), 2-keto-3-deoxy-6-phosphogluconate (KDPGNT), 3-deoxy-D-arabino-heptulosonate-7-phosphate (DAHHP).