

Effect of anaplerotic enzymes on C4 metabolism of *Escherichia coli*

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To increase the C4 metabolism of *Escherichia coli*, anaplerotic enzymes mediating carboxylation of C3 metabolites including PEP carboxylase (*ppc*), PEP carboxykinase (*pck*), malic dehydrogenase (*mae*), and pyruvate carboxylase (*pyc*), were expressed. The carbon flux for C4 metabolism was estimated based on the metabolites profiles and biomass in each anaplerotic enzyme expression. We are describing the effect of each anaplerotic enzyme on the C4 metabolism and on the physiology of *E. coli*. The metabolic engineering strategy for high C4 metabolite production is also discussed.

Reference

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