

Regulatory metabolic flux analysis on different pH and temperature of *Escherichia coli* W3110

우한민, 김태용, 송효학, 이동엽, 이상엽*
한국과학기술원
(leesy@kaist.ac.kr*)

Flux balance analysis (FBA) is a tool to estimate the intracellular flux on linear programming. *In silico* prediction of carbon source consumed and by-product excreted with the specific rate calculated by FBA of fermentation results of *Escherichia coli* W3110 supports the intracellular flux distributions on metabolic pathway are reliable. It should be not overlooked that FBA may lead the incorrect prediction when effects of regulation are not ignored. Regulations of *Escherichia coli* W3110 under different pH and temperature conditions from literature studies were applied to conventional metabolic flux analysis. Those applications of regulations based on the literature to do FBA were followed under different stress responses. Consequently, one can expect the rational intracellular flux of cell inside on the different pH and temperature experiments.

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