

A web-based simulation environment for metabolic control analysis of cellular network systems

윤좌문^{1,2}, 이동엽³, 오영균^{1,2}, 이상엽^{1,3}, 박선원^{1,2,*}
¹한국과학기술원 생명화학공학과; ²초미세화학공정센터;
³한국과학기술원 Bioinformatics Research Center
(sunwon@kaist.ac.kr*)

We developed a web-based environment for elucidating the parameters responsible for the control of flux, which is one of the most important goals of metabolic engineering for new knowledge discovery. Metabolic control analysis aims to characterize the sensitivity of metabolic responses with respect to changes in enzyme activities or parameters at the steady state. It is designed as a user-friendly web interface, allowing users to efficiently analysis and simulates biological reaction network models, thereby facilitating kinetic modeling and simulation of biological systems under development. This makes it suitable for scientists and students with limited computer experience.

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