

综述

磷酸化蛋白质组学方法在信号网络解析中的应用

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摘要

信号转导是细胞对各种外界刺激的应答反应, 蛋白磷酸化或去磷酸化是信号从胞外流向胞内并导致细胞效应过程中的关键机制。磷酸化蛋白质组学(phosphoproteomics)是采用蛋白质组学的分析方法, 研究细胞中所有磷酸化蛋白质及其修饰过程, 从整体上观察细胞中被修饰的磷酸化蛋白质的状态及其变化, 进而分析特定磷酸化修饰对生命过程的调控作用及其分子机制。

关键词 [磷酸化蛋白质组学](#); [信号转导](#); [网络](#)

分类号

Phosphoproteomic and its application in cellular signaling network analysis

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Abstract

Signal transduction is cellular responses for the outside various stimulators. Reversible phosphorylation of protein is a key mechanism for the extracellular signal flowing to intracellular and leading to cell biological processes. The identification of various stimulating phosphoproteins and the characterization of their phosphorylation sites have become the hotspot. Phosphoproteomics is using proteomics approach to analyze global phosphorylation proteins in the cell and their modified course, to observe the state and the changes of the phosphorylation modified protein as a whole, and further analysis of the specific phosphorylated modification of the protein on the regulation of the vital processes and its molecular mechanism.

Key words [phosphoproteomic](#) [signal transduction](#) [network](#)

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