

农学—研究进展

基于双向电泳技术的植物差异蛋白质组学研究进展

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摘要:

随着拟南芥、水稻等模式植物基因组测序的完成, 植物基因组学的研究重点已经转变为功能基因组学研究, 蛋白质组学研究是功能基因组学的核心内容之一, 它有助于从分子水平上了解植物功能。经典的双向电泳技术是蛋白质组学研究的支撑技术, 本文综述了基于双向电泳技术的植物在生长发育过程中和外界环境胁迫下不同器官及亚细胞结构的差异蛋白质组学研究进展, 最后提出了蛋白质组学技术目前所面临的问题并展望了其前景。

关键词: 环境胁迫

Advances in differential proteomics based on 2-DE in Botany

Abstract:

The Genome has been sequenced for the model plant of Arabidopsis and rice, and functional genome researches become the focus of genomics research in plant. Proteomics study is one of the cores of functional genome researches, which helps to understand plant functions on molecular level. Two-dimensional electrophoresis is one of the main techniques of proteomics. This article gave an overview of the advances in plant differential proteomics study based on 2-DE, which included the differential proteomic study of the plant tissues, organs and subcellular compositions in the development and under stress by the external environmental conditions. At last, the problems in this area were analyzed and the prospects were provided.

Keywords: environmental stress

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