

综合评述

转录因子网络与植物对环境胁迫的响应

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摘要 转录因子所介导的基因表达调控网络在植物抵御各种环境胁迫的反应中具有重要功能. 已鉴定的参与植物环境胁迫响应的转录因子及家族有APETALA2/EREBP、BZIP、WRKY和MYB等. 这些转录因子组成调控网络, 精细调控植物胁迫反应中各种相关基因的表达. 转录因子及其调控网络的遗传修饰已成为从系统水平上探索胁迫生物学和提高植物胁迫耐性和抗性的有效工具.

关键词 [环境胁迫](#) [转录因子](#) [调控网络](#)

分类号

Transcription factors networks and their roles in plant responses to environmental stress

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Abstract

The regulation networks of gene expression mediated by transcription factors play important roles in plant responses to a range of environmental stresses. Transcription factors and their families identified to be involved in plant stress responses include APETALA2/EREBP, bZIP, WRKY, MYB, etc., which can constitute regulation networks to regulate the temporal-spatial expression of each kind of related genes in plant stress responses. The genetic modifications of transcription factors and their regulation networks are increasingly becoming the effective approaches for understanding stress biology at system level, and a new way for enhancing the stress tolerance and resistance of plants.

Key words [Environmental stress](#) [Transcription factor](#) [Regulation network](#)

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