

专论与综述

## 植物microRNAs研究进展

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摘要

植物microRNAs(miRNAs)是一类与RNA诱导沉默复合体相关的约由22个核苷酸组成的单链小RNA分子,其主要功能是通过特异性剪切靶mRNA或阻遏靶mRNA的正常翻译在转录后水平调控基因的负表达。植物miRNAs的靶标主要是参与调控植物生长发育和防御应答的转录因子家族。文章主要综述miRNAs在植物体内的生物发生、作用机制及其调控作用研究新进展。

关键词 [植物microRNAs](#) [转录后基因调控](#) [植物生长发育](#)。

分类号

## Advances in the study of plant microRNAs

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### Abstract

<P> Plant microRNAs (miRNAs) are single-stranded RNA molecules of around 22 nucleotides (nt) in length that are associated with the RNA-induced silencing complex (RISC). They act as post-transcriptional negative regulators of gene expression mainly by guiding cleavage or attenuating the translation of target transcripts. The targets of plant miRNAs often belong to transcription factors families involved in the control of developmental processes and defense responses. In the present paper, we reviewed the recent advances in our understanding of the biogenesis and mechanism of action of plant miRNAs, as well as the regulatory roles in plants. </P>

**Key words** [plant microRNAs](#) [post-transcriptional gene regulation](#) [plant growth and development](#)

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