

植物miRNA的进化

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摘要 鉴于miRNA在植物基因表达调控中的重要作用,人们已经开展对植物miRNA的预测、鉴定、功能和进化等方面的研究。随着许多模式植物基因组测序的完成,miRNA的基因组学和进化信息的整合为miRNA的起源和进化研究提供了越来越多的证据和假说,然而尚未见关于植物miRNA进化方面的系统报道。文章从miRNA的起源以及相应的几种假说、miRNA的产生和消亡、miRNA的功能进化等几方面来分析和综述植物miRNA进化的研究进展。

关键词: miRNA 进化 产生和消亡 起源假说

Abstract: Due to the important role of miRNA in regulation of plant gene expression, researchers have focused on the prediction, identification, functional and evolutionary analysis of miRNA. As genome sequencing has been completed in many species, the integration of genomic sequences with evolutionary data of miRNA provides more and more evidence and hypotheses for the origin and evolution of miRNA. However, the evolution of miRNA in plants has not been extensively reviewed. In this article, we reviewed several aspects of the evolution of miRNA in plants, including the origin hypothesis of miRNA, the birth and death of miRNA, and the functional evolution of miRNA, which provides a reference for future research.

Keywords: miRNA, evolution, birth and death, origin hypothesis

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