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miRNA在脂代谢中的研究进展

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Research Advances of miRNA in Lipid Metabolism

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摘要 脂肪是人和动物用以贮存能量的主要形式,脂类代谢在机体生命活动中发挥着重要作用,而脂类代谢调控对于畜牧生产以及人类疾病治疗都有重要意义。miRNA(microRNA,译作微RNA或小分子RNA)是近年来在真核生物体内发现的一类长度约22个核苷酸的内源性非编码单链RNA,主要通过与靶基因mRNA靶标区域的互补配对,发挥降解靶mRNA或抑制mRNA翻译的作用。它能参与多种生物学过程包括细胞凋亡、分化和癌变等,近几年其关于脂代谢的重要调节作用也相继被报导。本文主要对调节脂代谢的一些关键miRNA的研究进行综述。

关键词： miRNA 脂代谢 靶基因

Abstract： Fat is the main form for energy storage in human beings and animals. Lipid metabolism plays an important role in a variety of life activities, and the regulation has important implications for livestock production and treatments of human diseases. miRNAs (microRNAs) are found in eukaryotes, and they are a class of non-coding single-stranded RNA molecules with the length of about 22 nt. miRNAs mainly act the functions of destabilization and translational repression of mRNA by binding to complementary target sites in target mRNAs. miRNAs take parts in regulating multiple physiological processes including apoptosis, cell differentiation, and canceration, ect. The importance of these miRNAs in regulating lipid metabolism has been reported recently. This review summarized the researches on some key miRNAs in regulating lipid metabolism.

Keywords： miRNA, lipid metabolism, target gene

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