

## 细胞外微RNA: 一种新型的肺癌分子生物标志物

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**摘要** 尽管癌症的早期诊断和治疗在不断发展和进步, 但寻找一种敏感、准确和微创的分子生物标志物, 用于肿瘤的诊断仍是一项艰巨任务。微RNA(miRNA)是一类长约21~24个核苷酸的内源性非编码小分子RNA。细胞外miRNA作为一种新型的分子生物标志物, 在癌症诊断方面具有微创、高灵敏度和高特异性等许多潜在特征。近年来, 细胞外miRNA研究成果颇丰。文章就细胞外miRNA的来源、功能、检测以及作为分子标志物在肺癌诊断中的作用和目前存在的一些问题进行了综述。

**关键词:** 细胞外微RNA 分子生物标志物 微创 肺癌

**Abstract:** Though continuous development and progress have been made in the early diagnosis and treatment of cancer, it is still difficult to find a sensitive, accurate and minimally invasive biomarker for cancer diagnosis and treatment. MicroRNA (miRNA) is a class of non-coding small endogenous RNAs of 21-24 nucleotides in length. As a novel molecular biomarker, extracellular miRNA (ec-miRNA) has the potential to be a minimally invasive, highly sensitive and highly specific marker in cancer diagnosis. Many research achievements of ec-miRNA have been accumulated in recent years. In this paper, the origin, function and detection of ec-miRNA, its role in lung cancer diagnosis as a novel molecular biomarker, and some issues are reviewed.

**Keywords:** extracellular microRNA, molecular biomarker, minimally invasive, lung cancer

收稿日期: 2012-01-12; 出版日期: 2012-06-25

基金资助:

浙江省自然科学基金项目(编号: Y12C060009), 浙江省教育厅重点项目(编号: Z201119414), 宁波市科技创新团队项目(2011B82014)和宁波大学王宽诚教育基金项目资助

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

引用本文:

杨丽华, 董琢, 龚朝辉. 细胞外微RNA: 一种新型的肺癌分子生物标志物[J] 遗传, 2012, V34(6): 651-658

YANG Li-Hua, DONG Zhuo, GONG Zhao-Hui. Extracellular miRNA: a novel molecular biomarker for lung cancer[J] HEREDITAS, 2012, V34(6): 651-658

链接本文:

http://www.chinagene.cn/Jwk\_yc/CN/10.3724/SP.J.1005.2012.00651 或 http://www.chinagene.cn/Jwk\_yc/CN/Y2012/V34/I6/651

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