



2018年11月15日 星期四

首页

期刊概况

编委会

专家学者

网上投稿

过刊浏览

期刊订阅

广告合作

中国肿瘤临床 » 2015, Vol. 42 » Issue (18): 900-905 DOI: doi:10.3969/j.issn. 1000-8179.2015.18.709

基础研究

最新目录| 下期目录| 过刊浏览| 高级检索

◀ 前一篇 | 后一篇 ▶

miRNA-143 靶向MACC1 抑制宫颈癌细胞侵袭

许常娟, 邓丹玲, 丁彦青, 廖雯婷

作者单位: 南方医科大学基础医学院病理系 (广州市510515)

Inhibitory effect of miRNA-143 on the invasiveness of cervical cancer cells by targeting MACC1

Changjuan XU, Danling DENG, Yanqing DING, Wenting LIAO

Department of Pathology, Southern Medical University School of Basic Medical Sciences, Guangzhou510515, China

摘要

图表

参考文献(0)

相关文章(15)

全文: PDF (3174 KB) HTML (1 KB)

输出: BibTeX | EndNote (RIS)

摘要

目的: 探讨miRNA-143对宫颈癌细胞侵袭能力的影响。方法: 采用脂质体转染法瞬时转染miRNA-143过表达和干扰质粒, Transwell迁移实验检测miRNA-143过表达和抑制后宫颈癌细胞侵袭能力的改变, 生物信息学预测miRNA-143的作用靶点。miRNA-143过表达和抑制后Western blot及双荧光素酶报告基因检测其靶点MACC1表达, RT-qPCR检测20例患者宫颈癌和癌旁正常组织标本中miRNA-143和MACC1 mRNA的表达, 分析20例患者宫颈癌组织中miRNA-143和MACC1 mRNA表达的相关性。结果: Transwell迁移实验显示miRNA-143过表达的宫颈癌细胞的侵袭能力降低, 抑制miRNA-143后侵袭能力增强。生物信息学预测显示miRNA-143作用于MACC1的3'-UTR, Western blot及双荧光素酶报告基因结果进一步证实miRNA-143作用于MACC1的3'-UTR。RT-qPCR显示miRNA-143过表达的MACC1 mRNA表达下降, 而抑制miRNA-143后MACC1 mRNA表达上升。抑制miRNA-143表达的宫颈癌细胞中MACC1被干扰后, 宫颈癌细胞的侵袭能力显著被抑制。宫颈癌组织中miRNA-143表达水平显著低于正常宫颈上皮组织, MACC1表达水平显著高于正常宫颈上皮组织, 20例患者的宫颈癌组织中miRNA-143与MACC1 mRNA表达呈负相关。结论: miRNA-143在宫颈癌中表达水平下降, 并可能通过靶向MACC1调节宫颈癌细胞的侵袭能力。

关键词: 宫颈癌, miRNA-143, 侵袭, MACC1

Abstract:

Objective: To illustrate the role of miRNA-143 on the invasiveness of cervical cancer cells. Methods: miRNA-143 mimics or inhibitor sequences were transiently expressed in the cervical cancer cells by liposome transfection. Transwell assay was applied to test the invasive ability of cervical cancer cells after miRNA-143 over-expression or inhibition. Bioinformatics assay was used to predict the targets of miRNA-143. RT-qPCR and luciferase reporter assay were performed to detect the expression of MACC1 mRNA in the cancer cells. RT-qPCR was conducted to test the expression of miRNA-143 and MACC1 mRNA in 20 fresh primary cervical cancer and their matched paraneoplastic tissues. Statistical analyses were performed to evaluate the association between the expression of miRNA-143 and MACC1 mRNA in the 20 cases of cervical cancer. Results: Transwell assays revealed that the miRNA-143 over-expression inhibited the cell invasiveness, while miRNA-143 inhibition promoted the invasive ability of the cervical cancer cells. Bioinformatics analyses revealed that miRNA-143 could target the 3'-UTR of MACC1. Dual luciferase reporter assay confirmed that miRNA-143 can affect 3'-UTR sequence in MACC1 genes. RT-qPCR analyses indicated that the expression of MACC1 mRNA was obviously down-regulated after miRNA-143 over-expression, while significantly increased after the miRNA-143 inhibition. The migration in Caski/miRNA-143 inhibitor cells was obviously elevated after being transfected with MACC1 shRNAs. RT-qPCR analyses showed that the expression of miRNA-143 was obviously decreased in the cancer tissues compared with the normal tissues, while MACC1 mRNA was apparently decreased in cancer tissues compared with the normal ones. Statistical analyses revealed that miRNA-143 was negatively correlated with MACC1 mRNA in the 20 cases of cervical cancer. Conclusion: This study reveals that miRNA-143 is down-regulated in the cervical cancer tissues. miRNA-143 may play an important role in the regulation of cell invasiveness by targeting MACC1 in the cervical cancer cells.

Key words: cervical cancer miRNA-143 invasiveness MACC1

收稿日期: 2015-07-01 出版日期: 2015-09-30

通讯作者: 廖雯婷 E-mail: liaowt2002@gmail.com

引用本文:

许常娟, 邓丹玲, 丁彦青, 廖雯婷. miRNA-143 靶向MACC1 抑制宫颈癌细胞侵袭[J]. 中国肿瘤临床, 2015, 42(18): 900-905. Changjuan XU, Danling DENG, Yanqing DING, Wenting LIAO. Inhibitory effect of miRNA-143 on the invasiveness of cervical cancer cells by targeting MACC1. Chinese Journal of Clinical Oncology, 2015, 42(18): 900-905.

链接本文:

http://www.cjco.cn/CN/doi:10.3969/j.issn. 1000-8179.2015.18.709 或 http://www.cjco.cn/CN/Y2015/V42/I18/900

服务

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ E-mail Alert
- ▶ RSS

作者相关文章

- ▶ 许常娟
- ▶ 邓丹玲
- ▶ 丁彦青
- ▶ 廖雯婷



版权所有 © 2013 《中国肿瘤临床》编辑部

地址：天津市河西区体院北环湖西路肿瘤医院内 300060

电话/传真：(022)23527053 E-mail: cjco@cjco.cn cjcotj@sina.com 津ICP备09011441号-3