

研究报告

*B-RAF*基因特异的siRNA干扰对胃癌BGC823细胞的影响

付浩^{1, 2}, 赵丹懿³, 孙秀菊¹, 滑君¹, 阎杨¹, 邱广蓉¹, 尚超¹, 富伟能¹, 孙开来¹

1. 沈阳中国医科大学医学遗传教研室, 沈阳110001;
2. 沈阳医学院生物化学教研室, 沈阳110046;
3. 中国医科大学第一附属医院肿瘤外科, 沈阳110001

收稿日期 2006-11-29 修回日期 2007-3-2 网络版发布日期 2007-5-8 接受日期

摘要

为探讨*B-RAF*基因特异的siRNA干扰对胃癌BGC823细胞的增殖和凋亡的影响, 设计并合成*B-RAF*小分子干扰RNA (*B-RAF*-siRNA)和阴性对照siRNA, 用TransMessenger介导转染胃癌BGC823细胞, RT-PCR分析检测胃癌BGC823细胞中*B-RAF*基因以及*Bcl-2*基因的表达; MTT检测胃癌BGC823细胞增殖情况; 流式细胞仪检测细胞凋亡情况, 并与对照组进行比较。TransMessenger能够有效介导*B-RAF*-siRNA和阴性对照siRNA转染胃癌BGC823细胞, TransMessenger介导的*B-RAF*-siRNA有效地抑制胃癌BGC823细胞*B-RAF*以及*Bcl-2*基因的表达, 与对照组相比, 抑制率达90.0%以上, 最高达100%; 同时明显抑制胃癌BGC823细胞增殖; 促进胃癌BGC823细胞的凋亡($P < 0.01$)。B-RAF基因特异的siRNA干扰能有效地抑制胃癌BGC823细胞中*B-RAF*基因以及*Bcl-2*基因的表达, 同时促进胃癌细胞凋亡和抑制胃癌细胞增殖。

关键词 [RNA干扰](#) [B-RAF基因](#) [胃癌细胞](#) [细胞凋亡](#)

分类号

Effect of B-RAF-specific RNA interference on gastric cancer BGC823 cell line

FU Hao^{1, 2}, ZHAO Dan-Yi³, SUN Xiu-Ju¹, HUA Jun¹, YAN Yang¹, QIU Guang-Rong¹, SHANG Chao¹, FU Wei-Neng¹, SUN Kai-Lai¹

1. Department of Medical Genetics, China Medical University, Shenyang 110001, China;
2. Department of Biochemistry, Shenyang Medical Colleg, Shenyang 110046, China;
3. Department of Surgical Oncology, First Affiliated Hospital, China Medical University, Shenyang 110001, China

Abstract

<P>To investigate the influence of B-RAF-specific RNA interference on the proliferation and apoptosis of gastric cancer BGC823 cell line. B-RAF-siRNA and scramble-siRNA were synthesized and transfected into BGC823 cells by TransMessenger. The expression of B-RAF gene and Bcl-2 gene in BGC823 cells was detected by RT-PCR and the level of apoptosis was evaluated in transfected cells by flow cytometry. Results showed that TransMessenger could effectively transfect B-RAF-siRNA and scramble-siRNA into BGC823 cells. B-RAF-siRNA significantly inhibited the expression of B-RAF gene and Bcl-2 gene in BGC823 cells by more than 90% to 100%. B-RAF-siRNA inhibited BGC823 cell proliferation and induced apoptosis (P < 0.01). In conclusion, B-RAF-siRNA can effectively inhibit the expression of B-RAF gene and Bcl-2 gene, induce cell apoptosis and inhibit the proliferation of gastric cancer BGC823 cells.</P>

Key words [RNA interference](#) [B-RAF gene](#) [gastric cancer](#) [cell apoptosis](#)

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)

复制索引

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“RNA干扰”的 相关文章](#)

▶ 本文作者相关文章

- [付浩](#)
- [赵丹懿](#)
- [孙秀菊](#)
- [滑君](#)
- [阎杨](#)
- [邱广蓉](#)
- [尚超](#)
- [富伟能](#)
- [孙开来](#)

