

论著

人突变p27基因转染大肠癌细胞凋亡的实验研究

陈珺¹, 徐少勇¹, 熊玲¹, 王家宁², 黄永章²

鄢阳医学院1附属人民医院消化内科, 2临床医学研究所, 湖北 十堰 442000

收稿日期 2005-2-28 修回日期 2005-4-19 网络版发布日期 2009-10-16 接受日期 2005-4-19

摘要 目的: 探讨人突变p27基因对大肠癌细胞凋亡的诱导作用。方法: 构建重组腺病毒Ad-p27mt, 转染大肠癌细胞SW480, 用流式细胞仪、DNA片段分析法、TUNEL法观察Ad-p27mt对大肠癌细胞凋亡的诱导作用。结果: 成功构建了Ad-p27mt, 在感染复数 ≥ 50 时, 可达100%的转导效率。Ad-p27mt转染SW480 24 h后流式细胞仪检测在G1期前出现了亚二倍体凋亡峰, 细胞DNA提取电泳后出现了凋亡特征性梯带, TUNEL法检测凋亡指数实验组和对照组分别为 82.6 ± 3.2 和 5.0 ± 3.5 , 差异显著 ($P < 0.01$)。结论: 人突变p27基因能有效诱导大肠癌细胞的凋亡。

关键词 [结直肠肿瘤](#); [基因,p27mt](#); [细胞凋亡](#)

分类号 [R735.2](#)

Apoptosis of colorectal cancer cells transfected with human mutant p27

CHEN Jun¹, XU Shao-yong¹, XIONG Ling¹, WANG Jia-ning², HUANG Yong-zhang²

1Department of Gastroenterology, Remin Hospital, 2Institute of Clinical Medicine, Yunyang Medical College, Shiyan 442000, China

Abstract

AIM: To study the inducing effect of human mutant p27 gene on apoptosis of the colorectal cancer cells. METHODS: The recombinant adenovirus Ad-p27mt was constructed to infect the colorectal cancer cell SW480. The inducing effect of Ad-p27mt on apoptosis in colorectal cancer cells was measured by flow cytometry, DNA fragment analysis and TUNEL method. RESULTS: Ad-p27mt was successfully constructed. When the multiplicity of infection (MOI) was ≥ 50 , the infection efficiency reached 100%. After 24 h of infection, there was an apoptotic hypodiploid peak observed by flow cytometry before G1 and there were apoptotic characteristic bands in the DNA electrophoresis. The apoptotic index detected by TUNEL method was 82.6 ± 3.2 (Ad-p27mt group) and 5.0 ± 3.5 (control group), respectively, the difference of which was significant ($P < 0.01$). CONCLUSION: Human mutant p27 gene transfection effectively induces apoptosis in the colorectal cancer cells.

Key words [Colorectal neoplasms](#) [Genes](#) [p27mt](#) [Apoptosis](#)

DOI: 1000-4718

通讯作者 陈珺 cjdwh@sycatv.net

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(4385KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [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“结直肠肿瘤; 基因,p27mt; 细胞凋亡”的相关文章](#)
- ▶ [本文作者相关文章](#)

- [陈珺](#)
- [徐少勇](#)
- [熊玲](#)
- [王家宁](#)
- [黄永章](#)