

实验方法

人胚肺成纤维细胞 *c-Ha-ras*^{V12G} 基因转染细胞系促癌剂检测模型的建立

吴涛*, 印木泉

(第二军医大学卫生毒理学教研室, 上海 200433)

收稿日期 2000-9-14 修回日期 网络版发布日期 2009-2-25 接受日期 2001-5-10

摘要 为建立一个促癌剂检测模型, 采用电穿孔法, 将突变的 *c-Ha-ras*^{V12G} 基因转入人胚肺成纤维细胞 WI-38 中, 将获得的 G418^r 抗性 (G418^r) 单克隆细胞株进行 DNA Dot-印迹及 RT-PCR 分析后, 进一步用佛波醇酯 (PMA) 处理, 并选用克隆形成率, 锚着独立性生长及裸鼠成瘤性等表型改变对受试细胞进行了恶性程度检测. 结果表明: 在促癌剂 PMA 作用下, WI 38 基因转染细胞发生了恶性转化, *c-Ha-ras*^{V12G} 基因使细胞对 PMA 的促癌敏感性增强. 由此可见, 该模型可直接用于促癌剂的检测.

关键词 [基因转染细胞](#) [促癌剂](#), [佛波醇酯](#)

分类号 [R965.2](#)

Development of a tumor promoter testing model with transfected human embryo lung fibroblast lines harboring *c-Ha-ras*^{V12G}

WU Tao*, YIN Mu-Quan

(Department of Health Toxicology, the Second Military Medical University, Shanghai 200433, China)

Abstract

To develop a tumor promoter testing system, by electroporation, human mutant *c-Ha-ras*^{V12G} gene was introduced into human embryo lung fibroblast line WI 38. After DNA Dot-blotting and RT-PCR analysis, the phenotypes, such as colony forming efficiency (CFE), anchor independent growth (AIG), and the ability to form tumor in nude mouse, of selected G418^r monoclonies exposed to phorbol-12-myristate-13-acetate (PMA) were observed. Results show that the neoplastic transformation of transfected WI 38 cell lines could be induced by PMA and the sensitivity of WI 38 cells to tumor promoter could be enhanced by the introduction of *c-Ha-ras*^{V12G} gene. So, the model could be used to detect tumor promoter.

Key words [transfected cells](#) [tumor promoter](#) [phorbol-12-myristate-13-acetate](#)

DOI:

通讯作者 吴涛 wjwutao@yahoo.com.cn

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(1135KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [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“基因转染细胞”的相关文章](#)
- ▶ 本文作者相关文章
- [吴涛](#)