

论著

野生型P53、P16基因联合抑制人胃癌细胞HGC27生长的实验研究

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摘要 背景与目的: 探讨逆转录病毒介导的野生型P53、P16基因协同抑制人胃癌细胞生长的作用。材料与方
法: 用脂质体转染法将携有野生型P53基因、P16基因的逆转录病毒载体pLNCX, 转染人未分化胃癌细胞系
HGC27, 对转染后细胞进行生长曲线、MTT生长抑制率、Southern杂交、流式细胞术分析, 观察其生物学特性
变化。结果: 野生型P53、P16蛋白的过表达对胃癌细胞系均呈现出生长抑制作用; 野生型P53基因与P16基因
联合导入HGC27细胞, 对细胞生长抑制、促使凋亡效果高于单种基因转染。结论: 野生型P53、P16基因联
合治疗效果高于利用个别基因的治疗效果。

关键词 [胃肿瘤](#); [基因](#); [P53](#); [P16](#); [基因治疗](#)

Study on the Growth Inhibition of Human Gastric Carcinoma Cell HGC27 by Combination of Wild-Type P53, P16 Genes

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Abstract **BACKGROUND & AIM:** To investigate the suppression effect on human gastric carcinoma cell HGC27 by combination of wild-type P53, P16 genes mediated by retrovirus vector. **MATERIAL AND METHODS:** Human gastric carcinoma cell line HGC27 was transfected via two retrovirus vectors pLNCX containing wild-type P53, P16 genes by lipofectamine. By using cell growth curve, MTT growth inhibition rate, Southern blot and flow cytometry assay, the clones obtained were detected and observed for the changes of their biologic characteristics. **RESULTS:** Overexpression of wild-type P53 and P16 gene inhibited the growth of human gastric carcinoma cell line. The HGC27 cell growth inhibition and apoptosis caused by combination transfection of wild-type P53 and P16 gene were higher than those caused by single gene transfection. **CONCLUSION:** The therapeutic effect of P53 and P16 gene combination therapy is significantly higher than that of single gene therapy.

Keywords [gastric neoplasm](#) [P53](#) [P16](#) [gene therapy](#)

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