

高低转移肺腺癌细胞系Anip973和AGZY83-a中P21过表达的研究 Overexpression of Tumor Suppressor Gene P21 in a Pair of Lung Adenocarcinoma Cell Lines, Anip973 and AGZY83-a, with Different Metastasis Potential

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摘要 为探讨肿瘤抑制基因对肺腺癌细胞生长的抑制作用, 利用FuGene转染方法将P21基因的表达质粒转入一对分别具高、低转移能力的肺腺癌细胞系An ip973和AGZY83-a中。对p21蛋白过表达的细胞系进行了细胞生长曲线, 克隆形成率, 原位末端标记分析和流式细胞仪分析。p21蛋白过表达的一对细胞系细胞生长曲线斜率降低, 克隆形成能力下降并出现明显的G1期阻滞, 但未检测到凋亡信号。结果表明p21基因的过表达通过G1期阻滞抑制这一对肺腺癌细胞的生长, P21基因可以作为肺腺癌基因治疗的候选基因。

Abstract: In order to investigate the suppression effect of tumor suppressor genes in lung adenocarcinoma, we transfected P21 expression vector into a pair of lung adenocarcinoma cell lines with different metastasis potential: Anip973 (high metastasis potential) and AGZY83-a (low metastasis potential). The suppression effects of p21 were evaluated by cell growth curve, cloning efficiency assay, flow cytometric analysis and Tunel technique. We found that increased expression of p21 in both cell lines was associated with significant lengthening of G1 phase, decreased proliferation potential and decreased cloning efficiency. No apoptosis was found in the cell lines with overexpressed P21 gene. The results showed that increased expression of P21 gene suppressed the lung adenocarcinoma cells by G1 arrest and P21 gene proved a candidate gene in lung adenocarcinoma gene therapy.

关键词 [P21基因](#) [基因治疗](#) [肺腺癌](#) **Key words** [P21 gene](#) [gene therapy](#) [lung adenocarcinoma](#)

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