

兽医—研究报告

慢病毒介导的shRNA对MFC细胞生长抑素的沉默及对细胞增殖的影响

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摘要:

SS能够抑制肿瘤细胞的增殖, 其与肿瘤的关系已成为肿瘤学的研究热点。本研究将包装获得的靶向生长抑素的lv-shRNA病毒液感染肿瘤细胞MFC, 同时, 以pcDNA3.1-SS (pSS) 转染细胞组作为SS过表达细胞对照, 通过荧光显微镜观察到了GFP的高效表达, RIA检测发现49.55% (P<0.05) 的SS受到了抑制。MTT法绘制细胞的生长曲线可知, pSS转染细胞的生长明显受到抑制, 抑制效率为8.14% (P<0.05); 而LV-shRNA组细胞的生长密度比对照组细胞提高了19.27% (P<0.05)。表明SS对肿瘤细胞的增殖具有抑制作用。本研究首次采用SS过表达和低表达细胞表型同时验证SS对细胞的作用, 为SS及其类似物在肿瘤方面的治疗提供了理论依据。

关键词: 细胞增殖

the Effects of Lentiviral-directed shRNA on Somatostatin Silencing and the Cell Proliferation of MFC Cells

Abstract:

Somatostatin could inhibit the growth of the tumor cell, and the correlation between somatostatin and the tumor is becoming a hot topic in oncology. In our research, MFC cells were infected with the lv-shRNA viral stocks targeting somatostatin with pcDNA3.1-SS transfected cells as the positive controls. The results showed that high infection efficiency was gained at 96 h with the fluorescence observation. SS protein level in LV-shRNA infected cells were reduced 49.55% in protein level (P<0.05) detected with RIA. Cell growth curve measured using the MTT assay showed that high levels of SS inhibit the cell growth ability significantly (8.14%, P<0.05). Reversely, lowering SS could stimulate the cell growth ability (19.27%, P<0.05), which identified that SS could inhibit the growth of the tumor cells MFC. This is the first research of the inhibition effects of SS on cell growth via high and ow levels of SS in vitro, and lays theoretical basis for the SS or the SS analogue on the oncotherapy.

Keywords: cell proliferation

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