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促进人胰腺癌Aspc1细胞凋亡 点此下载全文

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摘要：

目的： 探讨 IL-27 基因对人胰腺癌Aspc1细胞凋亡的影响及其体内抗肿瘤作用。 方法： 重组载体PA317/IL-27转染Aspc1细胞，G418筛选稳定转染 IL-27 基因的Aspc1细胞（Aspc1/IL-27）。ELISA、细胞计数法和流式细胞术分别检测IL-27对Aspc1细胞IL-27表达、细胞增殖和MHC-Ⅰ类分子表达的影响。将Aspc1/IL-27、Aspc1/LXSN（稳定转染空质粒的Aspc1细胞）和Aspc1细胞接种于裸鼠右背部皮下，观察Aspc1细胞移植瘤的生长情况和小鼠的生存期;TUNEL法检测移植瘤细胞的凋亡，电镜观察移植瘤细胞的超微结构变化。 结果： 成功建立稳定转染PA317/IL-27载体的Aspc1/IL-27细胞株。Aspc1/IL-27细胞高表达IL-27，而Aspc1/LXSN和Aspc1细胞不表达IL-27（ P <0.01）。PA317/IL-27载体转染不影响Aspc1细胞表面MHC-Ⅰ类分子的表达（ P >0.05）。Aspc1/IL-27组裸鼠移植瘤生长速度明显慢于Aspc1/LXSN组及Aspc1组（ P <0.05），且生存期延长（ P <0.05）。Aspc1/IL-27组移植瘤细胞凋亡率明显高于Aspc1/LXSN和Aspc1组\[（19.5±2.4）% vs （8.5±0 3）%、（9.1±0.8）%， P <0.01\]。 结论： IL-27 基因转染胰腺癌Aspc1细胞后通过诱导肿瘤细胞凋亡发挥抗肿瘤作用。

关键词：基因 胰腺肿瘤 Aspc1细胞 凋亡 增殖

promotes apoptosis of human pancreatic carcinoma Aspc1 cells Download Fulltext

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Abstract:

Objective : To investigate the effect IL-27 on apoptosis of human pancreatic carcinoma Aspc1 cells and its in vivo anti-tumor activity. Methods: PA317/IL-27 retrovirus vector was transfected into Aspc1 cells and the stable clones (Aspc1/IL-27) were obtained by selecting with G418. The effects of IL-27 on production of IL-27, proliferation, and MHC-Ⅰ expression of Aspc1 cells were determined by ELISA, cell counting and flow cytometry, respectively. Aspc1/IL-27, Aspc1/LXSN (Aspc1 cells stably transfected with empty vector) and Aspc1 cells were subcutaneously injected into nude mice, and the growth of transplanted tumors and survival time of mice were observed. Apoptosis and ultramicrostructure of the implanted-tumor cells were examined by TUNEL and electron microscope respectively. Results: Aspc1 cells stably transfected with PA317/IL-27 (Aspc1/IL-27) were successfully prepared. Aspc1/IL-27 cells secreted high levels of IL-27, while Aspc1/IL-27 and Aspc1 cells did not secreted IL-27 (P <0.01). Aspc1/IL-27 transfection did not affect the expression of MHC-Ⅰ on Aspc1 cells (P >0.05). The growth of implanted-tumors was significantly slower and the survival time was longer in Aspc1/IL-27 group than those in Aspc1/LXSN and Aspc1 groups (P <0.05). Apoptosis rate of implanted-tumor cells in Aspc1/IL-27 cells was significantly higher than those in Aspc1/LXSN and Aspc1 groups (\[19.5±2.4\]%, \[8.5±0.3\]%, \[9.1±0.8\]%, P <0.01) . Conclusion: IL-27 gene transfection exerts in vivo anti-tumor activity by inducing apoptosis of human pancreatic carcinoma cells.

Keywords:gene pancreatic neoplasms Aspc1 cell apoptosis proliferation

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