

Ku80基因沉默对人食管癌细胞黏附、侵袭能力的影响

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Effects of Silencing Ku80 Gene on Cell Adhesion and Invasion of Human Esophageal Carcinoma Cells

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全文: PDF (1173 KB) HTML (0 KB) 输出: BibTeX | EndNote (RIS) 背景资料

摘要 目的 利用shRNA抑制Ku80蛋白表达来研究Ku80对人食管癌细胞黏附、侵袭能力的影响。方法 用Western blot和RT-PCR方法证实RNA干扰的有效性和可行性。用细胞黏附实验、细胞侵袭实验来研究Ku80基因沉默对人食管癌细胞黏附、侵袭能力的影响。结果 干扰载体shRNA-H2, K3抑制Ku80蛋白的表达, 抑制率分别为63%和50% ($P<0.01$), 且抑制Ku80 mRNA的含量, 达84%和58% ($P<0.01$)。同时, 干扰载体shRNA-H2, K3抑制人食管癌细胞的黏附率分别(63.19±4.93)%和(52.87±2.67)%及抑制人食管癌细胞的侵袭能力, 抑制率为69.6%和62.1% ($P<0.01$)。结论 Ku80在食管癌的侵袭及转移过程中起作用, Ku80基因沉默有望成为肿瘤基因治疗的一个靶点。

关键词: shRNA Ku80 细胞黏附 细胞侵袭

Abstract: Abstract: Objective To investigate the effects of Ku80 on cell adhesion and invasion of human esophageal carcinoma cells by using shRNA vector to evaluate the inhibition of Ku80 expression. Methods The effectiveness and feasibility of RNA interference were confirmed by Western blot and RT-PCR methods. Effects of silencing Ku80 gene on cell adhesion and invasion of esophageal carcinoma cells were investigated by cell adhesion assay and cell invasion assay, respectively. Results The express of Ku80 protein was reduced by shRNA-H2 and K3. The inhibition rate was 63% and 50% for shRNA H and K3, respectively ($P<0.01$). Content of Ku80 mRNA was reduced by shRNA H2 and K3, respectively to 84% and 58% ($P<0.01$). Adhesion rate of human esophageal carcinoma cells was inhibited by shRNA-H2 and K3, respectively (63.19±4.93)% and (52.87±2.67)%. Cell invasion was inhibited by shRNA H2 and K3. Its inhibition rate was 69.6% and 62.1% ($P<0.01$), respectively. Conclusion Ku80 plays a role in invasion and migration of esophageal cancer. The inhibition of Ku80 expression was induced by shRNA, which means that silencing Ku80 gene may become a target of gene therapy to tumor.

Key words: shRNA Ku80 Adhesion Invasion

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