中国医学科学院学报 2007 29 (1): 67-72 ISSN: 1000-503x CN: 11-2237/R

论著

CD44表达减弱致人鼻咽癌细胞CNE-2L2体外生长的抑制

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收稿日期 2006-3-29 修回日期 网络版发布日期 2007-3-6 接受日期

摘要 摘要：目的 探讨CD44表达抑制对人鼻咽癌细胞株CNE-2L2生长的影响。方法 采用RNA干扰技术抑制细胞CD44表达,基因组PCR检测siRNA整合,Western blot检测CD44表达,CellTiter 96 AQueous One Solution Cell Proliferation Assay kit检测细胞生长,PI染色流式细胞仪检测细胞DNA含量。 结果 藉逆转录病毒转导入CNE-2L2细胞的siRNA均整合入了细胞基因组DNA。与整合了siegfp的对照细胞相比,整合了siCD44的细胞CD44表达均明显抑制,以整合了siCD44-1或siCD44-2的细胞中抑制最强。整合了siCD44-1或siCD44-2的细胞在培养中的生长明显受抑。细胞DNA含量分析显示野生型细胞、整合了siegfp的细胞、整合了siCD44-1的细胞及整合了siCD44-2的细胞处于G0/G1期的比例分别为44.4%、45.5%、53.9%及53.3%,处于S期的比例分别为39.3%、40.0%、27.1%及28.2%,处于G2/M期的比例分别为16.3%、14.5%、19.0%及18.5%。结论 CD44表达减弱抑制了CNE-2L2细胞在培养中的生长,抑制细胞从G0/G1期进入S期,但略促进细胞从S期进入G2/M期。

关键词 siRNA CD44 鼻咽癌细胞 生长 DNA含量

分类号

Reduction of CD44 Expression Results in Growth Inhibition of Human Nasopharyngeal Carcinoma Cell CNE-2L2 in Vitro

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Abstract ABSTRACT:Objective To study the effect of the inhibition of CD44 gene expression on the growth of human nasopharyngeal carcinoma cell CNE-2L2 in vitro. Methods CD44 gene expression in cells was suppressed by siRNA which was introduced into cells through retrovirus infection. Integration of siRNA into genomic DNA was examined by genomic PCR. CD44 gene expression in cells was detected by Western blot analysis. Cell growth in vitro was assayed using Cell Titer 96 AQueous One Solution Cell Proliferation Assay kit Promega. Cells were stained with propidium iodium and cell DNA content was detected upon a flowcytometer. Results siRNA was integrated into genomic DNA of host cells. The 4 cell pools integrated with one of the 4 siCD44s showed a significant inhibition of CD44 gene expression comparing to the controls, the wild type cell and the cell pool integrated with siegfp. The cell pools integrated with siCD44-1 or siCD44-2 showed the most profound inhibition. Growth of these 2 cells in vitro was compared to that of the controls and was found to be significantly inhibited. Cell DNA content analysis indicated 44.4%, 45.5%, 53.9%, and 53.3% in G0/G1 phase; 39.3%, 40.0%, 27.1%, and 28.2% in S phase; and 16.3%, 14.5%, 19.0%, and 18.5% in G2/M phase for the wild type cell, the cell pool integrated with siegfp, the cell pools integrated with siCD44-1, and the cell pools integrated with siCD44-2, respectively. Conclusion Reduction in CD44 expression inhibit the growth of CNE-2L2 cell and affects the development of cells from G0/G1 into S phase, but may somehow promote cells to develop from S into G2/M phase.

Key words siRNA CD44 nasopharyngeal carcinoma cell growth DNA content

DOI:

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