

基础研究

靶向PTTG和survivin基因共干扰质粒对U251细胞的沉默效率

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摘要:

的: 探讨共干扰质粒pGenesil-2.1-PTTG-survivin siRNA对U251细胞人垂体瘤转化基因(PTTG)和生存素(survivin)基因表达的影响。方法: U251细胞分为5组, 分别为正常细胞对照组、Lipo2000+〔JP〕pGenesil-2.1 HK组(HK阴性对照组)、Lipo2000+pGenesil-2.1-PTTG siRNA、Lipo2000+ pGenesil-2.1-survivin siRNA及Lipo2000+pGenesil-2.1-PTTG-survivin siRNA。应用RT-PCR法、流式细胞术和Western blotting方法检测转染36 h后的各组U251细胞PTTG与survivin基因 mRNA和蛋白表达。结果: 3个干扰组的U251细胞中PTTG和survivin基因mRNA和蛋白表达水平均较HK阴性对照组显著降低(P<0.01), 以共干扰质粒pGenesil-2.1-PTTG-survivin siRNA组降低最明显。结论: 共干扰pGenesil1-PTTG-survivin siRNA质粒对U251细胞中PTTG与survivin基因的沉默效应强于单独沉默其中某一基因的干扰质粒。

关键词: 垂体肿瘤转化基因; 生存素; RNA干扰; 胶质瘤

Silence effects of double interfering vector targeting PTTG and survivin genes on U251 cells

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Abstract:

Abstract: Objective

To explore the effects of double interfering vector pGenesil-2.1-PTTG-survivin siRNA on PTTG and survivin gene expressions in human U251 glioma cell line. Methods U251 cells were divided in to five groups: normal control, negative control (Lipo2000+ pGenesil-2.1 HK), Lipo2000+ pGenesil-2.1-PTTG siRNA, Lipo2000+ pGenesil-2.1- survivin siRNA and Lipo2000+ pGenesil-2.1-PTTG-survivin siRNA groups. The PTTG and survivin protein and mRNA levels in every group were measured with flow cytometry, Western blotting and RT-PCR method after U251 cells were transfected with these plasmids.

Results The PTTG and survivin protein and mRNA levels in Lipo2000+pGenesil-2.1 PTTG siRNA, Lipo2000+ pGenesil-2.1 survivin siRNA and Lipo2000+pGenesil-2.1-PTTG-survivin siRNA groups were decreased significantly compared with negative control group (P<0.01), especially in pGenesil-2.1-PTTG-survivin siRNA group. Conclusion The silence effects of double interfering vector pGenesil-2.1-PTTG-survivin siRNA on PTTG and survivin gene in U251 cells are stronger than those of pGenesil-2.1-PTTG siRNA or pGenesil-2.1- survivin siRNA.

Keywords: pituitary tumor transforming gene; survivin; RNAi; glioma

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