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36-39. pEGFC1-IGFBP7诱导恶性黑色素瘤SK-MEL-28 细胞的凋亡[J].陈嵘祎,樊翌明,涂亚庭,陈宏翔,沈 琴,许 莉.中国肿瘤

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摘要:

目的: 构建胰岛素样生长因子结合蛋白7 (insulin like growth factor binding protein 7, IGFBP7) 表达质粒(pEGFC1-IGFBP7)并研究其对恶性黑色素瘤SK-MEL-28细胞凋亡的影响。方法: 构建pEGFC1-IGFBP7质粒, 并将pEGFC1-IGFBP7质粒及空质粒分别转染入SK-MEL-28细胞, 用Annexin-FITC/PI检测转染后SK-MEL-28细胞的凋亡。结果: 成功构建pEGFC1-IGFBP7质粒, 用Effectene试剂能转染SK-MEL-28细胞, 转染效率达61%。流式细胞仪结果显示pEGFC1-IGFBP7可明显促进SK-MEL-28细胞凋亡, 转染24 h后的凋亡率分别为(5.8±0.44)%和(6.4±0.71)% (F=406.138, P<0.05)。结论: pEGFC1-IGFBP7为IGFBP7为基础的黑色素瘤基因治疗提供了实验依据。

关键词: [胰岛素样生长因子结合蛋白7\(IGFBP7\)](#) [黑色素瘤](#) [SK-MEL-28细胞](#) [凋亡](#)

pEGFC1-IGFBP7 induces apoptosis of malignant melanoma cell line SK-MEL-28 [Download Fulltext](#)

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Abstract:

Objective: To construct the insulin like growth factor binding protein 7 (IGFBP7) expression plasmid (pEGFC1-IGFBP7) and study its effect on the apoptosis of SK-MEL-28 (human malignant melanoma cell line) cells. Methods: pEGFC1-IGFBP7 and empty plasmids were transfected into SK-MEL-28 cells separately. The apoptosis of SK-MEL-28 cells after transfection was detected by Annexin-FITC/PI. Results: The pEGFC1-IGFBP7 plasmid was successfully constructed and was effectively transfected into SK-MEL-28 cells, with the transfection rate being 61%. The results of flow cytometry showed that pEGFC1-IGFBP7 could significantly promote the apoptosis of SK-MEL-28 cells, with the apoptotic rates of pEGFC1-IGFBP7, empty vector, and non-transfected cells being (5.8±0.44)%, (6.4±0.71)% and (2.57)%, respectively (F=406.138, P<0.05). Conclusion: pEGFC1-IGFBP7 provides an experimental basis for the gene therapy of malignant melanoma.

Keywords: [insulin like growth factor binding protein 7\(IGFBP7\)](#) [melanoma](#) [SK-MEL-28 cell](#) [apoptosis](#)

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