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67-70. 高表达GRIM-19诱导结肠癌SW480细胞凋亡[J]. 王桂华, 罗学来, 孙黎, 邓豫, 王珅, 李兆明, 李小兰, 陶德定, 胡俊波, 龚

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摘要:

目的: 研究干扰素/维甲酸诱导死亡基因 (retinoid interferon induced mortality, GRIM 19) 对结肠癌SW480细胞凋亡的影响。构建pCMV Flag GRIM 19真核表达载体, 转染入SW480细胞中, Western blotting检测GRIM 19及凋亡相关蛋白Bcl xl的表达。结果: 成功构建pCMV Flag GRIM 19真核表达载体。pCMV-Flag-GRIM-19质粒转染SW480细胞后, Bcl xl的表达则下调。转染空质粒pCMV Flag组SW480细胞凋亡率为 (7.7±1.39)%, 转染pCMV-Flag-GRIM-19质粒组SW480细胞凋亡率为 (15.0±2.52)%, (P<0.05)。线粒体膜电位检测显示转染空质粒pCMV Flag组SW480细胞膜电位降低细胞为 (7.5±2.09)%, 转染pCMV-Flag-GRIM-19质粒组SW480细胞膜电位降低细胞为 (17.5±3.07)%, (P<0.05)。结论: GRIM-19 体外转染可有效诱导结肠癌SW480细胞凋亡。

关键词: [结肠肿瘤](#) [GRIM 19](#) [凋亡](#) [Annexin V/PI](#) [线粒体膜电位](#)

Grim-19 overexpression induces apoptosis of colon cancer SW480 cells [Download Fulltext](#)

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Abstract:

Objective: To investigate the effect of retinoid interferon induced mortality (GRIM-19) gene on the apoptosis of colon cancer SW480 cells. GRIM 19 eukaryotic expression vector (pCMV-Flag-GRIM-19) was constructed and transfected into SW480 cells. Apoptosis related proteins were detected by Western blotting analysis. Apoptosis of SW480 cells was detected by Annexin V/PI staining and mitochondrial membrane potential JC-1 staining. Results: The GRIM 19 eukaryotic expression vector was successfully constructed. Expression of GRIM 19 in SW480 cells was up regulated and that of apoptosis related proteins was down regulated after transfection with pCMV-Flag-GRIM-19. Apoptosis rate was (7.7±1.39)% in SW480 cells transfected with pCMV-Flag vector and (15.0±2.52)% in pCMV-Flag-GRIM-19 transfected cells (P<0.05). Mitochondrial membrane potential was decreased in (7.5±2.09)% of pCMV Flag transfected cells and (17.5±3.07)% of pCMV-Flag-GRIM-19 transfected cells (P<0.05). GRIM-19 transfection can effectively induce apoptosis of colon cancer SW480 cells.

Keywords: [colon cancer](#) [GRIM 19](#) [apoptosis](#) [Annexin V/PI](#) [mitochondrial membrane potential](#)

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