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靶向XIAP的siRNA抑制结肠癌LoVo细胞体内外的增殖 [点此下载全文](#)

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摘要:

目的: 研究siRNA干扰X连锁凋亡抑制蛋白(X linked inhibitor of apoptosis protein, XIAP)基因表达对结肠癌细胞LoVo真核表达于载体pSil2.1 shXIAP1和pSil2.1 shXIAP2, 脂质体转染结肠癌细胞株LoVo, G418筛选出稳定转染LoVo细胞系, 应用RT-PCR和Western blotting方法检测XIAP mRNA和蛋白的表达。MTT法和平板克隆形成实验检测LoVo细胞的增殖; 流式细胞仪检测细胞的凋亡; 探讨对结肠癌体内增殖活性的影响。结果: LoVo shXIAP2细胞中 XIAP mRNA和蛋白表达水平均显著下调。相对于对照组细胞, 克隆形成率显著降低($P < 0.01$), 凋亡率显著增加($P < 0.01$)。LoVo shXIAP2移植瘤组织中XIAP蛋白表达明显下调, 抑制(均 $P < 0.05$)。结论: pSil2.1 shXIAP2能够抑制结肠癌LoVo细胞中XIAP蛋白的表达, 抑制LoVo细胞体内外的增殖, 有望

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XIAP targeting siRNA inhibits proliferation of colorectal cancer cells in vitro and in vivo [Download Fulltext](#)

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Abstract:

Objective: To investigate the effect of XIAP (X linked inhibitor of apoptosis protein) targeting siRNA on the proliferation of colorectal cancer cells in vitro and in vivo. Methods: The XIAP targeting siRNA pSil2.1 shXIAP1 and pSil2.1 shXIAP2 vectors were constructed and were transfected into LoVo cells using Lipofectamine; the stable transfectants were selected by G418. The expressions of XIAP mRNA and protein were determined by RT-PCR and Western blotting. The proliferation of LoVo cells in vitro and in vivo was observed in LoVo bearing nude mice. Results: The expressions of XIAP mRNA and protein in LoVo shXIAP2 cells were significantly down regulated in LoVo shXIAP2 cells. Compared with untransfected LoVo cells, the proliferation abilities of LoVo shXIAP2 cells were significantly inhibited ($P < 0.05$); the apoptosis rate of LoVo shXIAP2 cells was significantly increased ($P < 0.05$). The expression of XIAP protein in LoVo shXIAP2 implanted tumors was down regulated significantly ($P < 0.05$). Conclusion: pSil2.1 shXIAP2 plasmid can down regulate the expression of XIAP protein in LoVo cells and inhibit proliferation of LoVo cells in vitro and in vivo, making XIAP targeting siRNA a potential novel therapy for colorectal cancer.

Keywords: [colorectal cancer](#) [RNA interference](#) [XIAP](#) [proliferation](#) [apoptosis](#)

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