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Notch3-siRNA增强结肠癌细胞对托泊替康的化疗敏感性 [点此下载全文](#)

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摘要:

目的: 探讨下调Notch3表达是否可增强结肠癌SW620细胞对化疗药托泊替康 (topotecan) 的敏感性。方法: 将Notch3 siRNA转染到SW620细胞中, Western blotting检测转染后SW620细胞中Notch3的表达水平。转染后不同时间加入托泊替康, MTT法检测SW620细胞的增殖; Hoechst 33342染色和流式细胞仪检测SW620细胞的凋亡; Caspase 3活化试剂盒检测SW620细胞中caspase 3的活化。结果: Notch3 siRNA转染可明显抑制SW620细胞中Notch3蛋白的表达; 托泊替康作用于Notch3 siRNA转染组细胞的IC₅₀ 较对照Ctrl siRNA转染组显著降低 (P<0.05); 流式细胞仪检测显示沉默Notch3的表达可显著增强托泊替康诱导的结肠癌细胞凋亡 (P<0.05) 和caspase 3活化 (P<0.05)。结论: siRNA沉默Notch3的表达可增强SW620细胞对托泊替康的化疗敏感性。

关键词: [Notch3](#) [托泊替康](#) [结肠肿瘤](#) [凋亡](#) [化疗敏感性](#)

Notch3-siRNA enhances chemosensitivity of colon cancer cells to topotecan [Download Fulltext](#)

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Abstract:

Objective: To elucidate the relationship between Notch3 expression and chemosensitivity of human colon carcinoma cell line SW620 to topotecan. :Methods: : Notch3 siRNA was transfected into SW620 cells, and the expression of Notch3 in SW620 cells was examined by Western blotting. After transfected with Notch3 siRNA for different time periods, SW620 cells were further treated with topotecan, and the proliferation of SW620 cells was detected by MTT assay; the apoptosis of SW620 cells was detected by Hoechst 33342 staining and flow cytometry. Caspase 3 activation in SW620 cells was examined by caspase 3 activation kit. :Results: : Notch3 siRNA transfection remarkably inhibited Notch3 protein expression in SW620 cells. The IC₅₀ of topotecan in Notch3 siRNA transfected group was significantly decreased compared with that in the Ctrl siRNA group (P <0.05). Silence of Notch3 expression in SW620 cells by Notch3 siRNA remarkably promoted apoptosis (P <0.05) and caspase 3 activation (P <0.05) of SW620 cells induced by topotecan. : Conclusion: : Notch3 down regulation by siRNA in SW620 cells can enhance the chemosensitivity cells to topotecan.

Keywords: [Notch3](#) [topotecan](#) [colonal neoplasms](#) [apoptosis](#) [chemosensitivity](#)

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