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Survivin-siRNA抑制肺癌A549细胞的增殖并增强其对顺铂的敏感性 [点此下载全文](#)

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摘要:

目的: 构建靶向存活素 (survivin) 的干扰RNA (siRNA) 质粒, 观察其对A549细胞增殖、凋亡以及顺铂敏感性的影响。方法: 应用pSilencer U6质粒构建survivin siRNA干扰质粒, RT-PCR和Western blotting检测survivin mRNA和蛋白的表达, DAPI染色法检测细胞的凋亡, MTT法检测细胞的增殖。结果: 成功构建了survivin siRNA干扰质粒。Survivin siRNA质粒转染可明显下调A549细胞中survivin mRNA和蛋白的表达、抑制A549细胞的增殖、促进细胞的凋亡、增强A549细胞对顺铂的敏感性。结论: Survivin siRNA沉默survivin在肺癌细胞中的表达能够抑制肿瘤细胞的增殖、促进细胞凋亡, 并能增强肿瘤细胞对化疗药物顺铂的敏感性, survivin可作为肺癌治疗的潜在靶点。

关键词: [存活素](#) [RNA干扰](#) [肺肿瘤](#) [A549细胞](#) [顺铂](#)

Survivin-siRNA inhibits proliferation of lung cancer A549 cells and enhances their chemosensitivity to cisplatin [Download Fulltext](#)

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Abstract:

Objective: To investigate the effect of survivin siRNA plasmid on survivin expression in human lung cancer cell line A549, and to observe its effect on the apoptosis, proliferation, and chemosensitivity of A549 cells. :Methods: :pSilencer survivin siRNA (survivin siRNA) plasmid was constructed using pSilencer U6 plasmid and was transfected into A549 cells. Expression of survivin mRNA and protein was examined by RT-PCR and Western blotting analysis, respectively. Apoptosis and proliferation of A549 cells were examined by DAPI staining and MTT, respectively. :Results: :Survivin siRNA plasmid was successfully constructed, and it significantly inhibited survivin mRNA and protein expression in A549 cells. Survivin siRNA transfection induced apoptosis, inhibited proliferation and increased chemosensitivity of A549 cells to cisplatin. :Conclusion: :pSilencer survivin siRNA can silence survivin expression in A549 cells and subsequently inhibit proliferation, promote apoptosis, and enhance chemosensitivity of A549 cells to cisplatin. Survivin may serve as a potential target for gene therapy of lung cancer.

Keywords: [survivin](#) [RNA inference](#) [lung neoplasms](#) [A549 cell](#) [cisplatin](#)

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