



52-55. 曲古抑菌素A通过上调KLF4表达诱导人子宫内膜癌Ishikawa细胞凋亡[J]. 赵智凝, 周强, 白久旭, 闫博, 秦炜炜, 王涛, 贾林涛, 杨安钢. 中国肿瘤生物治疗杂志, 2012, (1)

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基金项目: 国家重点基础研究发展计划(973计划)资助项目(No. 2010CB529905)

DOI:

摘要:

目的: 观察组蛋白乙酰基转移酶(histone deacetylase, HDAC)抑制剂曲古抑菌素A(trichostatin A, TSA)对子宫内膜癌Ishikawa细胞凋亡的影响, 并研究其与Krupell样因子4(Krupell-like factor 4, KLF4)的关系。方法: 0、50、100、200、300、500 ng/ml TSA作用于Ishikawa细胞24 h, 或100 ng/ml TSA作用于Ishikawa细胞0、4、8、12、24、48 h, 流式细胞术检测Ishikawa细胞凋亡情况, qRT-PCR检测Ishikawa细胞中KLF4 mRNA的表达情况; 将KLF4真核表达载体pcDNA3-KLF4转染Ishikawa细胞, 流式细胞术检测Ishikawa细胞凋亡情况。结果: 100 ng/ml TSA作用于Ishikawa细胞24 h后, Ishikawa细胞的凋亡率显著高于对照组[(30.6±4.5)% vs (7.53±0.93)%, P<0.05]; 不同质量浓度TSA处理Ishikawa细胞24 h后或100 ng/ml TSA作用Ishikawa细胞不同时间后, KLF4 mRNA表达水平以剂量依赖和时间依赖方式明显增高(P<0.05); pcDNA3-KLF4转染后Ishikawa细胞凋亡率显著增加[(27.3±2.7)% vs (4.53±1.75)%, P<0.05]。结论: TSA能通过诱导子宫内膜癌Ishikawa细胞中KLF4的表达, 促进Ishikawa细胞发生凋亡。

关键词: [曲古抑菌素A](#) [子宫内膜癌](#) [Ishikawa细胞](#) [Krupell样因子4](#) [凋亡](#)

Trichostatin A induces apoptosis of endometrial cancer Ishikawa cells by up-regulating expression of Krupell-like factor 4 [Download Fulltext](#)

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Fund Project: Project supported by the National Major Basic Research Program (973 Program) of China (No. 2010CB529905)

Abstract:

Objective: To observe the effect of Trichostatin A (TSA) on the apoptosis of endometrial cancer Ishikawa cells and to study its relationship with Krupell-like-factor 4 (KLF4) in this course. Methods: Ishikawa cells were cultured with different concentrations of TSA 0, 50, 100, 200, 300, 500 ng/ml for 24 h or 100 ng/ml TSA for 0, 4, 8, 12, 24 and 48 h. FACS and qRT-PCR were used to detect apoptosis and KLF4 mRNA level, respectively. Results: The apoptosis rate was increased compared to the control in the Ishikawa cells treated with 100 ng/ml TSA for 24 h [(30.6±4.5)% vs (7.53±0.93)%, P<0.05]. The mRNA levels of KLF4 were up-regulated after Ishikawa cells were stimulated with different concentrations of TSA for 24 h or with 100 ng/ml TSA for 4, 8, 12, 24, 48 h (P<0.05). Those effects were in a dose-dependent or time-dependent manner. The apoptosis rate was increased compared to the control in the Ishikawa cells over-expressed KLF4 [(27.3±2.7)% vs (4.53±1.75)%, P<0.05]. Conclusion: TSA induces apoptosis of Ishikawa cells by up-regulating the expression of KLF4.

Keywords: [trichostatin A](#) [endometrial cancer](#) [Ishikawa cell](#) [Krupell-like factor 4](#) [apoptosis](#)

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