

# YM155对肝癌HepG2细胞增殖和凋亡的影响

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**Title:** Effect of YM155 on proliferation and apoptosis of Hepatic carcinoma HepG2 cells

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**关键词:** YM155; 肝肿瘤; 生存素; 细胞增殖; 细胞凋亡

**Keywords:** YM155; liver neoplasms; survivin; cell proliferation; apoptosis

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**摘要:** 目的: 探讨YM155对肝癌HepG2细胞增殖和凋亡的影响及可能的机制。方法: 采用CCK-8法检测细胞生长抑制率; 应用流式细胞仪检测细胞凋亡率的变化; Western blot法检测细胞中蛋白表达的变化, 实时定量RT-PCR检测survivin mRNA表达的变化。结果: YM155对人肝癌HepG2细胞的生长抑制作用呈现剂量和时间依赖性。流式细胞术结果显示, HepG2细胞凋亡率明显升高, 呈现剂量依赖性。YM155可引起survivin mRNA及蛋白表达下降, 而caspase-3、caspase-9和PARP蛋白表达上升。结论: YM155可以抑制人肝癌HepG2细胞的增殖并促进其凋亡, 其机制可能是通过激活caspase凋亡途径来实现。

**Abstract:** Objective: To investigate the effects of YM155 on human hepatic carcinoma cell lines HepG2 and the possible mechanisms. Methods: Cell growth inhibition rates were determined by CCK-8 assay. The apoptosis rates of HepG2 cells were analyzed by flow cytometry. The expression levels of proteins were detected by Western blot. Survivin mRNA expression was determined by real time polymerase chain reaction (RT-PCR). Results: The proliferation rate of HepG2 cells in the YM155 treated group decreased in a dose-and-time-dependent manner. FCM results showed that the apoptosis rate of HepG2 cells was increased in a dose-dependent manner. YM155 could significantly down-regulate mRNA and protein levels of survivin. It can also up-regulate caspase-3, caspase-9 and PARP protein levels. Conclusion: YM155 can inhibit proliferation and induce apoptosis of HepG2 cells through activating the apoptotic signal pathway of caspase.

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备注/Memo: -

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