

论著

白桦酯醇对食管癌细胞EC109的抑制作用

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摘要 背景与目的: 白桦酯醇是一种重要的三萜类生物活性分子, 本文从白桦树皮中提取获得白桦酯醇纯品, 然后研究该生物活性分子抑制食管癌细胞的活性。 材料与方法: 取一定量的白桦树皮干粉, 通过乙醇回流, 减压浓缩和甲醇-氯仿重结晶等步骤获得白桦酯醇纯品。用不同剂量的白桦酯醇作用于EC109食管癌细胞48 h, 噻唑蓝(Methylthiazolotetrazolium, MTT)法检测细胞抑制率。 结果: 白桦酯醇作用于食管癌细胞EC109后, EC109细胞形态发生明显改变, 细胞抑制率随白桦酯醇浓度的增高而增高, 呈现剂量依赖关系。 结论: 白桦酯醇对食管癌细胞EC109有明显抑制活性。

关键词 [白桦酯醇](#); [食管癌细胞](#); [抗肿瘤活性](#)

Inhibition Effect of Betulin on Oesophageal Cancer EC109 Cell Line

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Abstract **BACKGROUND & AIM:** Betulin is an important triterpene. We investigated the antitumor activity of betulin, extracted from the bark of silver birch (*Betula platyphylla* Suk). **MATERIAL AND METHODS:** Betulin was isolated from dry powder of the bark of silver birch (*Betula platyphylla* Suk) by using ethanol circumfluence, decompress concentration and methanol-chloroform recrystallization. The inhibition rate on EC109 cell growth was detected by MTT (Methylthiazolotetrazolium) method, after the oesophageal cancer EC109 cells have been treated for 48h with different doses of betulin. **RESULTS:** With the increasing doses of betulin, the inhibition rate of EC109 cell growth was increased, and their morphological characteristics were changed significantly. The inhibition rate showed dose-dependent relation. **CONCLUSION:** Betulin had potent inhibiting effects on EC109 cells growth in vitro.

Keywords [betulin](#) [oesophageal cancer cells](#) [antitumor activity](#)

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