

论著

鳞盖肉齿菌的抗肿瘤细胞增殖活性及其机制的研究

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摘要 背景与目的: 从鳞盖肉齿菌 (*Sarcodon scabrosus karst*) 的二氯甲烷提取物中分离纯化得到Sarcodonin G, 对Sarcodonin G进行抗肿瘤细胞增殖活性及其机制的研究。材料与amp;方法: 利用四唑盐 (MTT) 比色法测定Sarcodonin G对HeLa细胞增殖的抑制率; 利用流式细胞术检测Sarcodonin G对HeLa细胞的凋亡和P53基因蛋白表达的影响; 利用电镜技术观察Sarcodonin G对HeLa细胞形态学改变。结果: Sarcodonin G对体外培养的HeLa细胞的增殖具有明显地抑制作用, 其半数抑制率 (IC₅₀) 为7.19 μmol/L, 并有较好量效关系; 流式细胞学检查发现Sarcodonin G处理后的HeLa细胞出现凋亡现象、对P53基因蛋白表达影响与对照组比较有统计学意义 (P < 0.01); 超微结构发现Sarcodonin G处理后的HeLa细胞的胞核染色质浓缩, 边集, 核固缩及形成新月体, 线粒体肿胀, 空泡样变, 胞浆出现大量空泡等凋亡的形态学改变。结论: 鳞盖肉齿菌的纯化物Sarcodonin G能抑制体外培养的HeLa细胞的增殖, 可能是通过调节HeLa细胞P53蛋白表达, 诱导HeLa细胞的凋亡来实现其抗肿瘤增殖作用的。

关键词 [鳞盖肉齿菌](#); [Sarcodonin G](#); [抗肿瘤细胞增殖活性](#); [细胞凋亡](#); [P53](#)

Anti-tumor Effects and Mechanisms of Sarcodon Scabrosus Karst Extracts

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Abstract **BACKGROUND & AIM:** To study the anti-tumor effects of Sarcodonin G, extracted from *Sarcodon scabrosus karst* by dichloromethane on HeLa cell in vitro and explore the possible mechanisms. **MATERIAL AND METHODS:** The effect of Sarcodonin G on HeLa cell line was determined by MTT assay in vitro. The apoptosis induced by Sarcodonin G was studied by FCM. The morphological changes of HeLa cells were assessed by transmission electron microscope. **RESULTS:** Sarcodonin G dose dependently inhibited the proliferation of cultured HeLa cells, the IC₅₀ was 7.19 μmol/L. Compared with the control group, the apoptosis rate and the expression of P53 in HeLa cells were markedly higher in the three Sarcodonin G group (P < 0.01). The morphological changes of HeLa cells incubated with Sarcodonin G showed chromatin condensation, marginal and nuclear fragmentation. **CONCLUSION:** Sarcodonin G could inhibit the proliferation of HeLa cells in vitro. Its anti-tumor effect might be associated with up-regulating the expression of P53 and inducing apoptosis.

Keywords [sarcodon scabrosus karst](#) [sarcodonin G](#); [anti-tumor](#); [apoptosis](#) [P53](#)

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