

论著

中药五加皮抗肿瘤活性成分的分离

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摘要 背景与目的: 分离中药五加皮抗肿瘤活性成分, 确定其分子量, 为抗肿瘤新药开发研制提供依据。材料与方法: 采用3H-TdR掺入法测定五加皮有效成分对肿瘤细胞增殖反应的影响; 经凝胶层析进一步分离五加皮抗肿瘤成分; 用SDS-PAGE电泳、二次元电泳分离并确定其成分和分子量; 经蛋白酶E和NaIO4处理分析了有效成分的化学组成。结果: 经凝胶层析和SDS-PAGE电泳分析, 我们从五加皮提取物(S200F2)中分离得到分子量约64 kDa的单一成分, 该成分对MT-2细胞增殖有抑制作用。经蛋白酶E和NaIO4处理分析, 该成分的抗肿瘤作用与蛋白质成分有关, 与糖成分无关, 说明该成分是蛋白质。经二次元电泳法分离后确认该成分是单一蛋白质。结论: 以上结果提示, 五加皮抗肿瘤活性是一种分子量约64 kDa的单纯蛋白质成分, 该成分的进一步纯化将为抗肿瘤新药物的开发和中药有效成分的研究提供实验依据。

关键词 [五加皮](#); [有效成分分离](#); [抗肿瘤](#)

The Isolation of Anti-tumor Component of Acanthopanax Gracilistylus

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Abstract **BACKGROUND & AIM:** The anti-tumor active components were isolated from *Acanthopanax gracilistylus* to identify its molecular weight and supply the scientific evidence for developing new anti-tumor drugs. **MATERIAL AND METHODS:** The effects of the active component on the proliferation of tumor cells was investigated by 3H-TdR incorporation methods. The active component was isolated 2D by chromatography. Its elements and molecular weight were measured by SDS-PAGE and 2D electrophoresis. Its chemical nature was analyzed by treatment with pronase E and NaIO4. **RESULTS:** By gel-filtration and SDS-PAGE, an 64 kDa protein was isolated(G100F), which inhibited the proliferation of MT-2 tumor cells. The anti-tumor active component being not a polysaccharide but a protein was measured by treatment with pronase E and NaIO4. This result was further confirmed by 2D electrophoresis. **CONCLUSION:** The anti-tumor active component of *Acanthopanax gracilistylus* is a 64 kDa protein. The purification of this component will supply scientific evidence for the development of new anti-tumor drugs and the study of the active component.

Keywords [acanthopanax gracilistylus](#); [active component](#); [purification](#); [anti-tumor effect](#)

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