

羟乙基化牛膝多糖的合成及其活性研究

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摘要 以环氧乙烷为羟乙基化试剂,在碱性水溶液中,对牛膝多糖进行羟乙基化,经过丙酮沉淀、膜分离、Sephadex G-25柱层析等分离方法得到羟乙基化牛膝多糖纯品,检测其理化性质,并通过甲基化、GC-MS分析,初步确证糖链中羟乙基主要取代在葡萄糖6位和果糖的1位上。药理实验表明,羟乙基化牛膝多糖对荷Lewis肺癌小鼠NK活性具有一定促进作用。

关键词 [牛膝](#) [羟乙基牛膝多糖](#) [结构](#) [抗肿瘤药](#) [环氧乙烷](#) [色谱-质谱](#) [药理](#)

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Studies on Synthesis, Structure and Bioactivity of Hydroxyethylated Abps

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Abstract Achyrantes bidentata polysaccharides (Achyranthan, Abps) was hydroxyethylated by ethylene oxide in aqueous NaOH. The crude product was purified by acetone precipitation, dialysis, and Sephadex G-25 column chromatography to give hydroxyethylated Abps (Abps-HE), which was identified by some physicochemical properties. By the methylation method and GC-MS analysis, it is concluded that the hydroxyethyl groups are mainly substituted on 6-position of the glucopyranose and fructofuranose of the sugar backbone. The product possesses antitumor activity and improves NK cell activity in Lewis lung cancer mice.

Key words [achyrantes bidentata](#) [hydroxyethylated abps](#) [STRUCTURE](#) [ANTITUMOR DRUGS](#) [ETHYLENE OXIDE](#) [CHROMATOGRAPHY-MASS SPECTROMETRY](#) [PHARMACOLOGY](#)

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