

羧甲基牛膝多糖的制备、结构及生物活性研究

邓乐华,田庚元

中国科学院上海有机化学研究所.上海(200032)

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摘要 在NaOH水溶液中,以ClCH₂COOH为羧甲基化试剂,对牛膝多糖(AbPS)进行了羧甲基化,粗产物经DEAE-Cellulose及Sephadex G-25两次柱层析纯化,得到羧甲基牛膝多糖(CM-AbPS)纯品,经高效液相法(HPLC)及毛细管电泳法(CE)检测表明具有较好的均一性,并通过样品甲基化和GC-MS分析,对羧甲基牛膝多糖链中羧甲基的分布进行了研究,

结果表明羧甲基牛膝多糖中羧甲基主要取代的糖链中呋喃果糖的4-位上。该产物具有抗肿瘤活性。

关键词 [牛膝多糖](#) [羧甲基](#) [高速液体色谱](#) [抗肿瘤药](#)

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Studies on the Preparation, Structure and Bioactivity of CM-AbPS

Deng Lehua, Tian Gengyuan

State Key Laboratory of Bio-organic and Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences. Shanghai(200032)

Abstract Achyrantes bidentata Polysaccharides (AbPS) was carboxymethylated by ClCH₂COOH in aqueous NaOH and the crude product was purified by successive DEAE-Cellulose and Sephadex G-25 column chromatography to yield homogeneous carboxymethylated product (CM-AbPS), which was detected by high performance liquid chromatography (HPLC) and capillary electrophoresis (CE). By the methylation method and GC-MS analysis, we studied the distribution of carboxymethyl groups in the sugar backbone of CM-AbPS and conclude that the carboxymethyl groups mainly substitute on 4-position of the fructofuranose of the sugar backbone. The product has anti-tumor activity.

Key words [achyrantes bidentata](#) [POLYSACCHARIDE](#) [CARBOXYMETHYL GROUP](#) [HPLC](#) [ANTITUMOR DRUGS](#)

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