

论文

小刺猴头液体深层发酵浸膏多糖提取工艺的优化及分离纯化

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摘要:

采用热水浸提法提取小刺猴头液体深层发酵浸膏多糖,在液料比、提取时间和提取温度单因素试验的基础上,利用SAS 9 2(the SAS System for Windows 9 2)软件设计响应面,以多糖得率作为响应值,优化得最佳提取条件:液料比(mL/g)29:1,提取时间452 h,提取温度79 5℃,2次平行多糖得率12 28%。通过乙醇分级、脱蛋白、透析、过凝胶柱分离多糖,采用醋酸纤维素薄膜电泳、柱层析、紫外光谱及反复冻融鉴定为均一多糖。

关键词: 小刺猴头 液体深层发酵浸膏 多糖 热水浸提法 响应面法 醋酸纤维素薄膜电泳

Optimization of Extraction Technology and Isolation Purification of Polysaccharides from *Hericium caputmedusae* Liquid Submerged Fermentation Extractum

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Abstract:

Warm water extraction was used for *Hericium caputmedusae* liquid submerged fermentation extractum polysaccharides, based on solventsolid ratio, extracting time, extracting temperature single factor experiments. The SAS 9 2 software was employed to design response surface and the yield of polysaccharides was used as the responsive values. The optimum ultrasonieassisted extraction conditions were as follows: solvent / solid ratio 29 : 1 (mL / g), extracting time452h, extracting temperature 79 5℃, the yield of polysaccharides rate was 12 28%. Ethyl alcohol fractionation, purified through deproteinization, dialysis and freezedry. The polysaccharides were identified as uniform after film electrophoresis, column chromatography, the spectrum of ultraviolet spectra and repeat freeze thawing.

Keywords: *Hericium caput medusae*; liquid submerged fermentation extractum polysaccharides warm water extraction response surface analysis methodology film electrophoresis

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