

原位微提 – 固相萃取 – 液相色谱法 测定玄参中五种指标性成分^{*}

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摘要:目的 建立原位微提 – 固相萃取 – 液相色谱法(原位微提 – SPE – HPLC 法), 应用于玄参中桃叶珊瑚苷、安格洛苷 C、哈巴苷、肉桂酸、哈巴俄苷的快速提取、净化、测定。方法 注溶剂于玄参药材微孔中, 快速提取后使用 C18 固相萃取法净化, 采用液相色谱法测定指标性成分。结果 采用 7.5g 的玄参块, 在 35℃、微孔大小 1mm × 1mm 时, 用比例为 50% 的甲醇溶液 1mL 进行固相萃取提取, 玄参各指标性成分分离度高、峰形较好。结论 原位微提 – 固相萃取 – 液相色谱法以原位预处理操作简便、用样极少、取样快、试剂用量少且净化效果良好的优点, 实现了快速提取、净化、测定玄参指标性成分, 为快速测定玄参指标性成分含量提供了新方案。

关键词: 原位微提; 固相萃取 – 液相色谱法; 玄参; 桃叶珊瑚苷; 哈巴苷; 安格洛苷 C; 哈巴俄苷; 肉桂酸

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Determination of Five Index Components in Radix Scrophulariae by in Situ Microextraction – Solid Phase Extraction – Liquid Chromatography

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Abstract: Objective To establish an in situ microextraction – solid phase extraction – liquid chromatography (SPE – HPLC) method for the rapid extraction, purification and determination of aucubin, angloride C, harpagoside, cinnamic acid and harpagoside in Radix Scrophulariae. **Methods** The solvent was injected into the micropores of Radix Scrophulariae, which was quickly extracted and purified by C18 solid phase extraction. The index components were determined by liquid chromatography. **Results** When 7.5g Radix Scrophulariae was used, the solid phase extraction was carried out at 35 °C and the micropore size was 1 mm × 1 mm with 1 ml of 50% methanol solution. **Conclusion** In situ microextraction solid phase extraction liquid chromatography has the advantages of simple in situ pretreatment, few samples, fast sampling, less reagent consumption and good purification effect. It realizes the rapid extraction, purification and determination of the index components of Radix Scrophulariae, and provides a new scheme for the rapid determination of the index components of Radix Scrophulariae.

Keywords: In situ microextraction; Solid phase extraction liquid chromatography; Radix Scrophulariae; Aucubin; Harpagoside; Angloride C; Harpagoside; Cinnamic acid

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