



HPLC同时测定菊花中6种活性成分含量

投稿时间: 2010-10-10 责任编辑: 丁广治 [点击下载全文](#)

引用本文: 覃珊,温学森.HPLC同时测定菊花中6种活性成分含量[J].中国中药杂志,2011,36(11):1474.

DOI: 10.4268/cjcm20111115

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中文摘要:目的:利用HPLC同时测定菊花中绿原酸、1,5-二咖啡酰奎宁酸、异绿原酸A、异绿原酸C、木犀草素-7-O-β-D-葡萄糖苷和芹菜素-7-O-β-D-葡萄糖苷含量。方法:以Phenomenex Gemini-NX C₁₈色谱柱(4.6 mm×250 mm, 5 μm),甲醇-0.4%磷酸水溶液梯度洗脱,流速1 mL·min⁻¹,柱温25℃,检测波长350 nm。结果:6种活性成分均达到基线分离,线性关系良好($r \geq 0.9997$);平均加样回收率为100.6%~102.4%,RSD<3%。除异绿原酸A外,其他5种成分在蒸制样品中均显著高于直接晒干样品。蒸制后,半开放菊花绿原酸和异绿原酸A含量分别比全开放菊花高53%和41%。结论:本方法方法灵敏、准确、可靠、重复性好,可用于菊花药材的质量评价。

中文关键词:菊花 绿原酸类成分 黄酮类成分 高效液相色谱法

Simultaneous determination of 6 active components in *Chrysanthemum morifolium* by HPLC

Abstract: Objective: To develop a HPLC method quantitative method for simultaneous determination of chlorogenic acid, 1,5-dicaffeoylquinic acid, isochlorogenic acid A, isochlorogenic acid C, luteolin-7-O-β-D-glucoside and apigenin-7-O-β-D-glucoside in *Chrysanthemum morifolium* Ramat. Method: A Phenomenex Gemini-NX C₁₈ column (4.6 mm×250 mm, 5 μm) was used with CH₃OH and 0.4% H₃PO₄ as mobile phases. The flow rate was 1 mL·min⁻¹, the column temperature was 25℃, and the detection wavelength was set at 350 nm. Result: The 6 active components were in baseline separation. The linearity of this method was good ($r \geq 0.9997$), and the average recoveries were 100.6%~102.4%, RSD<3%. Except isochlorogenic acid A, the contents of the determined components in the steam-blanching flower heads were significantly higher than those non blanching. The contents of chlorogenic acid and isochlorogenic acid A in the steam-blanching semiopened flower heads were higher than fully opened ones by 53% and 41%, respectively. Conclusion: The method is sensitive, accurate, reliable and repeatable, which can be used for quality evaluation of *Chrysanthemum*.

keywords: *Chrysanthemum morifolium* caffeoylquinic acids flavonoids HPLC

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