

论文

柱前衍生化HPLC法测定积雪草及三金片中积雪草苷的含量

肖隽;车镇涛;毕开顺

1.沈阳药科大学药物分析研究室, 辽宁 沈阳 110015;2.香港中文大学中医学院, 香港

摘要:

目的 建立积雪草中积雪草苷的柱前衍生化高效液相色谱测定法,并用该法测定积雪草和三金片中积雪草苷的含量。方法 以吡啶-苯甲酰氯为衍生化试剂,对积雪草苷分子中的羟基进行苯甲酰化后,采用RP-HPLC法测定。色谱柱: Spherisorb ODS C₁₈柱;流动相: 甲醇-四氢呋喃-水(90:4:6, 0.1%三乙胺);柱温: 25℃;流速:

0.8 ml.min⁻¹;检测波长: 235 nm;内标物: V_{D3}。结果 积雪草苷0.396~3.960 μg与峰面积比呈线性关系,相关系数为0.9985。用此法对不同产地的积雪草和三金片中积雪草苷进行测定,结果积雪草中积雪草苷的平均回收率为99.6%,RSD为2.3%(n=6);三金片中积雪草苷的平均回收率为99.2%,RSD为2.7%(n=6)。结论 此法准确、灵敏度高、重现性好,为中药积雪草和中成药三金片的质量评价提供了科学依据。

关键词: 积雪草;三金片;积雪草苷;衍生化;高效液相色谱法

PRE-COLUMN DERIVATIZATION HPLC METHOD FOR THE DETERMINATION OF ASIATICOSIDE IN CENTELLA ASIATICA AND SANJINPIAN

XIAO Jun;BI Kai-shun;CHE Zhun-tao

Abstract:

AIM To develop a pre-column derivatization HPLC method for the determination of asiaticoside in *Centella asiatica* samples from different habitats and the traditional Chinese medicine (TCM) recipe Sanjinpien containing *Centella asiatica*. METHODS The derivatizing reagent was benzoyl chloride in pyridine; the eluent consisted of methanol-tetrahydrofuran-water (90:4:6, 0.1% triethylamine); VD₃ served as internal standard. The detection wavelength was set at 235 nm. RESULTS Assay linearity was obtained in the range of 0.396~3.960 μg (γ=0.9985). The average recovery of asiaticoside from *Centella asiatica* and Sanjinpien were 99.6% and 99.2%, respectively. The results suggest that the method developed is suitable for estimating asiaticoside in plant material and Sanjinpien. CONCLUSION This method was accurate, sensitive and reproducible. It offered a scientific basis for the routine assay of *Centella asiatica* and the TCM recipe Sanjinpien containing *Centella asiatica*.

Keywords: Sanjinpien asiaticoside derivatization high performance liquid chromatography *Centella asiatica*

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