

高效液相色谱法同时测定中药材虎掌南星的核苷类成分

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Determination of nucleosides in Rhizoma Pinelliae by high performance liquid chromatography

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摘要	参考文献	相关文章
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摘要 建立了高效液相色谱同时测定中药材虎掌南星中核苷类活性成分(腺嘌呤、次黄嘌呤、黄嘌呤、尿苷、胸腺嘧啶、腺苷、鸟苷)含量的方法。以Lichrospher C18色谱柱(150 mm×4.6 mm, 5 μm)分离,以乙腈-水(含0.1%甲酸)为流动相,梯度洗脱,在254 nm下检测,腺嘌呤、次黄嘌呤、黄嘌呤、尿苷及鸟苷分别在1.6~50 mg/L范围内、胸腺嘧啶和腺苷分别在1.2~40 mg/L范围内的线性关系良好,相关系数均大于0.9995,加标回收率为98.9%~101.2%,相对标准偏差均小于3%。方法学考察结果显示符合含量测定要求,并应用于不同产地虎掌南星的测定。该方法操作简便、快速,结果可靠,重现性好,可作为虎掌南星质量评价的参考依据。

关键词: 高效液相色谱法 核苷 虎掌南星; 中药材

Abstract: A high performance liquid chromatographic (HPLC) method was established to determine nucleosides in Rhizoma Pinelliae, which is a dried stem tuber of Pinellia pedatisecta Schott in Pinellia plant belonging to Araceae family and has multiple efficiencies about downbear counterflow and check vomiting, eliminating dampness and phlegm, etc. The separation of adenine, hypoxanthine, xanthine, uridine, thymine, adenosine and guanosine was achieved on a Lichrospher C18 column (150 mm×4.6 mm, 5 μm) with the detection at 254 nm and gradient elution by acetonitrile-water containing 0.1% formic acid as the mobile phase. The linear ranges were from 1.6 mg/L to 50 mg/L for adenine, hypoxanthine, xanthine, uridine and guanosine, while from 1.2 mg/L to 40 mg/L for thymine and adenosine with correlation coefficients above 0.9995. The average recoveries were between 98.9% and 101.2% with the relative standard deviations below 3%. The results of methodological study demonstrated that the method met the requirements of the determination. The nucleosides in Rhizoma Pinelliae from different districts were determined. The method is convenient and accurate with good reproducibility and can be used to evaluate the quality of Rhizoma Pinelliae.

Keywords: high performance liquid chromatography (HPLC) nucleosides Rhizoma Pinelliae; traditional Chinese medicinal materials

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