

研究报告

# 1-氧-乙酰大花旋覆花内酯对照品的制备及其在欧亚旋覆花中的含量测定

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收稿日期 2005-6-21 修回日期 网络版发布日期 2006-2-27 接受日期

**摘要** 从欧亚旋覆花的氯仿提取物中分离制备了1-氧-乙酰大花旋覆花内酯对照品,经紫外光谱、红外光谱、核磁共振和质谱确定结构,其相关数据与文献一致,纯度为99.5%,符合中药化学对照品含量测定用要求。以所制备的1-氧-乙酰大花旋覆花内酯为对照品,建立了用高效液相色谱-蒸发光散射检测器(HPLC-ELSD)测定欧亚旋覆花中1-氧-乙酰大花旋覆花内酯含量的方法。色谱条件为Hypersil ODS-2色谱柱,流动相为甲醇-水(体积比为52:48),流速为1.0 mL/min。ELSD的漂移管温度为90 °C,载气(空气)流速为2.5 L/min。1-氧-乙酰大花旋覆花内酯在进样量为1.37~8.21 μg时与其峰面积的线性关系良好( $r=0.9998$ )。平均加样回收率为100.2%,相对标准偏差(RSD)为1.3%( $n=6$ )。该法准确,简单,省时,重复性好,适用于欧亚旋覆花的质量控制。

**关键词** [高效液相色谱](#) [蒸发光散射检测](#) [1-氧-乙酰大花旋覆花内酯](#) [对照品](#) [欧亚旋覆花](#)

分类号

## Preparation and Determination of 1-O-Acetylbritannilactone in Inula Britannica L.

Cheng Wei

### Abstract

To prepare reference substance for quality control of Inula Britannica L., 1-O-acetylbritannilactone was extracted and separated from chloroform extraction of Inula Britannica L. Chemical structure of the 1-O-acetylbritannilactone product was elucidated by ultraviolet spectrometry (UV), infrared spectroscopy (IR), nuclear magnetic resonance (NMR) and mass spectrometry (MS), and the results were in agreement with the reference. The purity of the 1-O-acetylbritannilactone product was 99.5%, which satisfies the need of reference substances of traditional Chinese medicines. A method of high performance liquid chromatography-evaporative light scattering detection (HPLC-ELSD) is described for the determination of 1-O-acetylbritannilactone in Inula Britannica L. The chromatographic conditions include Hypersil ODS-2 column, a mixture of methanol-water (52: 48, v/v) with the flow rate of 1.0 mL/min used as mobile phase. The temperature of drift tube of the ELSD was 90 °C. Flow rate of carrier gas was 2.5 L/min. Linear range of 1-O-acetylbritannilactone was 1.37-8.21 μg ( $r=0.9998$ ). The average recovery of 1-O-acetylbritannilactone was 100.2% with the relative standard deviation (RSD) of 1.3% ( $n=6$ ). The method is simple, accurate, time saving and reproducible.

**Key words** [high performance liquid chromatography](#) [evaporative light scattering detection](#) [1-O-acetylbritannilactone](#) [reference substance](#) [Inula Britannica L.](#)

DOI:

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