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HPLC测定不同产地灵芝中9种三萜酸

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中文摘要:目的:建立HPLC测定灵芝子实体中9种三萜酸的方法。方法:采用Alltima C_{18}色谱柱(4.6 mm×150 mm,5 μm),流动相为乙腈-0.04%甲酸溶液,检测波长254 nm,流速1.0 mL·min^{-1},柱温15 ℃。结果:灵芝酸C_2、灵芝酸G、灵芝烯酸B、灵芝酸B、灵芝烯酸A、灵芝酸A、赤芝酸A、灵芝烯酸D、灵芝酸C_1的线性范围分别为6.81～40.88,6.38～38.25,6.75～40.50,6.38～38.25,5.95～35.65,5.90～35.25,7.00～42.00,6.20～37.15,6.05～36.4 mg·L^{-1}(r=0.999 4,0.999 2,0.999 4,0.999 2,0.999 2,0.994 5,0.999 0,0.999 2,0.998 4),加样回收率分别为102.1%,102.3%,100.6%,103.3%,104.1%,103.2%,96.42%,102.5%,101.5%,RSD为1.5%,0.96%,1.9%,1.3%,1.7%,2.5%,0.62%,2.9%,1.3%。测定了31个不同地区、不同栽培条件下灵芝样品的三萜含量。结论:该方法可行、重复性好,可定量测定灵芝中三萜酸的含量。

中文关键词:HPLC 灵芝 三萜酸

Determination of nine triterpenoid acids from *Ganoderma lucidum* of different producting areas by HPLC

Abstract:Objective: To establish an HPLC method for determining nine triterpenes contained in *Ganoderma lucidum*. **Method:** Chromatography conditions: Alltima C_{18} (4.6 mm×150 mm, 5 μm) was adopted as the chromatographic column, with acetonitrile-0.04% formic acid solution as the mobile phase. The detective wavelength was set at 254 nm, and the column temperature was 15 ℃. **Result:** The linearities of ganoderic acid C_2, ganoderic acid G, ganoderenic acid B, ganoderic acid B, ganoderenic acid A, ganoderic acid A, lucideric acid A, ganoderenic acid D, and ganoderic acid C_1 ranged between 6.81-40.88, 6.38-38.25, 6.75-40.50, 6.38-38.25, 5.95-35.65, 5.90-35.25, 7.00-42.00, 6.20-37.15 and 6.05-36.4 mg·L^{-1}(r=0.999 4, 0.999 2, 0.999 4, 0.999 2, 0.999 2, 0.994 5, 0.999 0, 0.999 2 and 0.998 4). Their recoveries were 102.1%, 102.3%, 100.6%, 103.3%, 104.1%, 103.2%, 96.42%, 102.5% and 101.5%, with RSD being 1.5%, 0.96%, 1.9%, 1.3%, 1.7%, 2.5%, 0.62%, 2.9% and 1.3%. The content of triterpenes contained in *G. lucidum* samples from 31 different areas and under different cultivation conditions. **Conclusion:** The method is so feasible and highly reproducible that it can be used for quantitatie determination of the content of triterpenoid acid contained in *G. lucidum*.

keywords:HPLC *Ganoderma lucidum* triterpenoid acid

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