

论文

盾叶薯蓣中水溶性甾体皂苷成分

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摘要:

为研究盾叶薯蓣的水溶性化学成分, 用溶剂提取, 色谱法分离, 光谱法鉴定结构。从盾叶薯蓣的水溶液中分离到5个甾体皂苷(I~V), 经分析¹H NMR、¹³C NMR、¹³⁵DEPT、HMQC、HMBC和TOCSY谱, 鉴定了化合物的结构, 其中4个为原甾体皂苷, 1个为甾体皂苷。化合物V为(25R)-26-O-(β-D-glucopyranosyl)-furost-5-en-3β,22ξ,26-triol-4β-acetoxyl-3-O-β-D-glucopyranosyl-(1→3)-β-D-glucopyranosyl-(1→4)-[α-L-rhamnopyranosyl-(1→2)]-β-D-glucopyranoside, 为1新化合物, 命名为zingiberenin G, 化合物I、II、III在盾叶薯蓣中为首次报道。

关键词: 盾叶薯蓣 甾体皂苷 zingiberenin G

Isolation and structure determination of steroidal saponin from *Dioscorea zingiberensis*

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Abstract:

To study the chemical constituents of *Dioscorea zingiberensis* Wright, the EtOH extract of fresh rhizomes of *D. zingiberensis* was concentrated and partitioned further to produce petroleum ether-, ethylacetate-, n-butanol- and water-soluble fractions. The water-soluble fraction was subjected to column chromatography on macro resin AB-8, and the final products were obtained by repeated reversed-phase ODS and MCI gel CHP 20P column chromatography. Structures of compounds were elucidated by means of ¹H NMR, ¹³C NMR, ¹³⁵DEPT, HMQC, HMBC and TOCSY spectroscopic analyses. Five steroidal saponins were isolated, in which one new steroidal saponin was identified as (25R)-26-O-(β-D-glucopyranosyl)-furost-5-en-3β,22ξ,26-triol-4β-acetoxyl-3-O-β-D-glucopyranosyl-(1→3)-β-D-glucopyranosyl-(1→4)-[α-L-rhamnopyranosyl-(1→2)]-β-D-glucopyranoside (V). The compound V is a new compound, named as zingiberenin G. The compounds I, II and III were reported for the first time from *D. zingiberensis* Wright.

Keywords: steroidal saponin zingierenin G *Dioscorea zingiberensis*

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