三七水煎液中还原型谷胱甘肽及腺嘌呤的分离与鉴定

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摘要 三七经水煎提取,阴、阳离子交换树脂分离以及RP-HPLC分离获得多种含肽类化合物组分,采用游离及酸水解后氨基酸组成及含量对照分析的方法预示了提取液中肽类化合物的存在,

经氨基酸组成分析、聚丙烯酰胺薄膜双向层析、羧肽酶C-末端序列分析、质谱测定等方法分析,将YN-3H12组分鉴定为还原型谷胱甘肽, YN-3H11组分鉴定为腺嘌呤,

本研究方法可为植物中水溶性肽类化合物等活性成分的研究提供参考。

关键词 三七 谷胱甘肽 腺嘌呤 分离 高速液体色谱

分类号 Q51

Isolation and identification of reduced glutathione and adenine in the boiling water extract of panax notoginseng

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Abstract Many peptide constituents were separated from the boiling water extract of Panax notoginseng by extraction, anion and cation ion exchange resin separation and RP-HPLC separation methods. Peptide components were predicted to be existed in the boiling water extract by comparison of the composition and content of free amino acid and that after hydrolysis. YN-3H12 obtained from the boiling water extract of Panax notoginseng was identified as reduced glutathione by amino acid analysis, two dimentional chromatogram of polyacrylamide film, C-terminal analysis by carboxypeptidase digestion and mass chromatography analysis, The compound YN-3H11 was determined as adenine by analysis of its 1^H-, 13^C-NMR, MS spectra and by comparison with an authentic sample. This experiment provided an effective method to study the water-soluble peptide compounds and other bioactive components in the plants.

Key wordsPANAX PSEUDOGINSENG VAR. NOTOGINSENGGLUTATHIONEADENINESEPARATIONHIGH SPEED LIQUID CHROMATOGRAPHY

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