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毛菊苣药材不同部位主要活性成分含量

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中文摘要:目的: 比较毛菊苣 根、茎、种子3个部位中绿原酸、秦皮乙素、山莴苣素和山莴苣苦素的含量。 方法 :Inertsil ODS-SP色谱柱(4.6 mm× 250 mm, 5 μm),流速1.0 mL·min^{-1},柱温32 ℃,流动相甲醇-0.2%甲酸, 0~40 min,30%~70%甲醇梯度洗脱,进样量5 μL; 检测波长分别为256,350,299和229 nm。 结果 :绿原酸、秦皮乙素、山莴苣素和山莴苣苦素的回收率分别为98.2%, 99.57%, 100.50%和99.46%,线性范围分别为0.97~97.2(r=1.000), 2.2~88.0(r=0.998 9), 21.0~210.0 (r=0.999 8),和2.6~533.3 mg·L^{-1}(r=1.000),RSD分别为1.6%,1.5 %,0.77 %,2.0%。毛菊苣根山莴苣苦素和山莴苣素质量分数分别为0.678 9,0.752 0 mg·g^{-1},而种子里的分别为0.239 6,0.052 0 mg·g^{-1},种子中秦皮乙素、绿原酸的质量分数分别为0.071 0,0.189 0 mg·g^{-1},而根中质量分数分别为0.004 8,0.004 3 mg·g^{-1}。 结论 :本方法准确、快速、简便、重复性好, 为毛菊苣质量控制提供了依据。

中文关键词:毛菊苣 绿原酸 秦皮乙素 山莴苣素 山莴苣苦素 含量比较 高效液相色谱法

Comparative studies in content of major active compositions in differentparts of *Cichorium glandulosum*

Abstract: Objective : The four major active compositions, namely esculetin, lactucin, lactucopicrin and chlorogenic acid in seed,stem and root of the Cichorium glandulosum Boiss.et Huet that planted in Xinjiang have been quantified by HPLC. Method : HPLC method was used, with Inertsil ODS-SP column(4.6 mm × 250 mm, 5 μm). The flow rate was 1.0 mL·min^{-1}. The column temperature was set at 32 ℃. The mobile phase was methanol-0.2% formic acid, 0-40 min, methanol 30%-70 % gradients. Injection volume was 5 μL. The detecting wavelength were 256, 350, 299 and 229 nm, respectively. Result : The percentage recoveries were 98.2%, 99.57%, 100.50%, and 99.46% for chlorogenic acid, esculetin, lactucin, and lactucopicrin, respectively. The correlation coefficients (r) were 1.000, 0.998 9, 0.999 8, 1.000 and RSD were 1.6%, 1.5 %, 0.77%, 2.0% for chlorogenic acid, esculetin, lactucin, and lactucopicrin, respectively. The contents of the chlorogenic acid, esculetin, lactucin and lactucopicrin were 0.004 8 , 0.004 3, 0.678 9, 0.752 0 mg·g^{-1}, respectively in the root, and 0.071 0, 0.189 0, 0.239 6 and 0.052 0 mg·g^{-1} in the seeds of *C.glandulosum*, respectively. Conclusion : This method was sensitive, rapid and simple, with good linearity, recovery and reproducibility.

keywords:*Cichorium glandulosum* esculetin lactucin lactucopicrin chlorogenic acid quantitative compare HPLC

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