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论文摘要

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杜仲中松脂醇二葡萄糖甙的提纯

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摘 要:对杜仲中活性成分松脂醇二葡萄糖甙(Pinoresinol DiGlucoside,即PDG)提取、纯化工艺进行了研究,并使用高效液相色谱法测定PDG含量.结果表明:杜仲粉用体积分数为60%的乙醇水溶液,60℃,提取2次,每次1 h,PDG提取率可达90%以上.分别采用4种大孔树脂对提取液进行分离纯化处理,以不同浓度的乙醇水溶液进行梯度洗脱,发现S型树脂对此种活性成分选择性好、吸附量大,用体积分数为40%的乙醇水溶液洗脱可将其完全解吸附,PDG的收率达45.2%.在C18色谱柱上,以体积分数为26%的甲醇水溶液为流动相,流速为1.0 mL/min,在λ=228 nm处,对杜仲原料中PDG进行了测定,结果表明炮制后的杜仲皮的PDG质量分数较高,为0.497%.

关键字: 杜仲; PDG; 大孔树脂; 提取; 测定

The extraction and purification of pinoresinol diglucoside in eucommia ulmoide oliver

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Abstract:A technological process for the extraction and purification of pinoresinol diglucoside (PDG) in eucommia ulmoide oliver was studied and HPLC method for determination was used. The powder of eucommia was extracted twice with $60\%(\phi)$ ethanolwater solution at 60%C, for 60 min each time. The eucommia solution was subjected to four different macro-reticular resins column chromatography, eluted with ethanol-water solution by gradient elution respectively. The results show that S resin is good because of high selectivity, high capability of adsorbability and easiness of being eluted; the extraction ratio of PDG reaches 90%, the PDG recovery rate of purification process is 44.5%. The PDG of eucommia ulmoide oliver was determined by HPLC at 228 nm under the conditions :ODS-C18column, $26\%(\phi)$ MeOH-H2O as mobile phase. The results show that the content of PDG of the roasted bark is the highest.

Key words:eucommia ulmoide oliver; PDG; macro-reticular resins; extraction; determination

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