

用大孔树脂纯化柿叶总黄酮工艺考察

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摘要

目的 筛选大孔树脂纯化柿叶总黄酮的最佳工艺, 为后续研究提供基础。方法 以大孔树脂对总黄酮的吸附率和解吸率为指标筛选树脂种类; 以吸附温度、供试液中总黄酮的质量浓度和供试液pH值为指标, 考察不同条件下AB-8大孔树脂对柿叶总黄酮的吸附量; 以固体物中柿叶总黄酮的纯度为指标, 确立洗脱用醇的体积分数及洗脱方法; 采用紫外-可见分光光度法、HPLC法测定总黄酮的含量。结果 选择AB-8大孔树脂; 最佳纯化工艺为上样液总黄酮质量浓度 60 mg·L⁻¹, pH 5.0, 温度 25 °C; 最佳洗脱方式是用5倍柱体积的水及体积分数分别为10 %、20 %、30 %的乙醇依次洗脱, 弃去洗脱液后再用5倍柱体积的体积分数为50 %的乙醇洗脱; HPLC法测定总黄酮的含量为76 %。结论 AB-8大孔树脂对柿叶总黄酮纯化的综合性能较好, 适合于工业化大生产。

关键词 [药剂学](#) [纯化](#) [高效液相色谱法](#) [黄酮](#) [AB-8大孔树脂](#) [柿](#)

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Purification of total flavonoids from leaves of *Diospyros kaki* using macroporous resin

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Abstract

Objective To select the optimal process parameters for refining total flavonoids from the leaves of *Diospyros kaki* using macroporous resin. Methods Factors influencing the purification efficiency, such as types of macroporous resin, adsorption temperature, properties of the eluent, concentration and pH of the sample solution, were investigated. Results Compared with D101 and polyamide, AB-8 macroporous resin had the best property for total flavonoids purification. The optimal process conditions were: the concentration of total flavonoids 60 mg·L⁻¹, pH 5.0, temperature 25 °C. The eluents were water, 10%, 20%, 30% and 50% ethanol respectively and they flowed through the macroporous resin one by one with five times of the column volume. The obtained eluent of 50% ethanol was evaporated and the content of total flavonoids was 76% measured by HPLC. Conclusions The AB-8 macroporous resin showed a good adsorption property and can be used to refine total flavonoids in industrial production.

Key words [pharmaceutics](#) [purification](#) [HPLC](#) [flavonoid](#) [AB-8 macroporous resin](#) [Diospyros kaki L.f](#)

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