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摘要: 皂苷具有多种药理作用,对野生大豆中各类皂苷的定量分析是研究野生大豆皂苷药理作用的基础。利用索氏提取器以甲醇热回流提取野生大豆中的皂苷,结合理化反应进行鉴别,以齐墩果酸作为对照品进行薄层层析,通过薄层扫描测定皂苷含量。结果表明:野生大豆皂苷1~5 μg范围内线性关系良好,平均回收率为98.98%,RSD为0.41%,薄层层析斑点清晰且分离良好,计算得总皂苷在野生大豆脱脂粕中的含量为1.91%,远高于在栽培大豆脱脂粕中的含量。该方法简便准确,结果稳定,可用于野生大豆皂苷的分析。

Abstract: Saponins have many pharmacological actions. The determination of wild soybean saponins contents is the basis of the pharmacological experiments. In this experiment, wild soybean saponins were extracted by Soxhlet extractor with hot circulatory methanol, identified by physical-chemical reactions and the thin layer chromatography (TLC) with the oleic acid taken as reference standard, and then the TLC scanner was used to determine the content of the saponins. The linear range of wild soybean saponins was from 1 to 5 μg; the average recovery was 98.98% with RSD of 0.41%. The TLC identification was distinct and the spots were clear. The content of saponins in defatted wild soybean was 1.91%, which was significantly higher than that in defatted cultivated soybean. The method is simple and accurate with stable outcomes, and suitable for analysis of wild soybean saponins.

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