

论文

苦地丁中六种异喹啉生物碱的薄层分离和光密度法测定

何丽一;张亚斌

中国医学科学院药物研究所,北京

摘要:

在碱性硅胶G薄层上用己烷-氯仿-甲醇(8:2:0.25及4:5:1)两种溶剂系统,分别展开分离了苦地丁中六种异喹啉生物碱——普洛托品(I)、右旋异紫堇灵(II)、右旋紫堇灵(III)、四氢黄连碱(IV)、乙酰紫堇灵(V)及苦地丁5号(VI)。用改良Dragendorff试剂显色后,薄层光密度法测定。各生物碱的线性范围为0.5~3.0μg,平均变异系数为1.76%,显色后24小时内稳定。用本法可测定苦地丁及紫堇属多种植物,苦地丁总碱及片剂中异喹啉生物碱的含量。

关键词: 苦地丁 异喹啉生物碱 普洛托品 右旋紫堇灵 右旋异紫堇灵 四氢黄连碱 乙酰紫堇灵 苦地丁5号 薄层光密度法

TLC SEPARATION AND DENSITOMETRIC DETERMINATION OF SIX ISOQUINOLINE ALKALOIDS IN CORYDALIS BUNGEANA

HE Li-Yi and ZHANG Ya-Bin

Abstract:

Application of thin-layer chromatographic method for separation and subsequent visible densitometric determination of protopine (I), d-isocorynoline (II), d-corynoline (III), tetrahydrocoptisine (IV), acetylcorynoline (V) and tetrahydrocorysamine (VI) in *Conydalis bungeana* is described. The procedure is as follows: Sample preparation: 0.5 g of pulverized sample of crude drug is macerated overnight with 10 ml of chloroform saturated with 25% NH4OH in a glass stoppered flask. The extract is filtered and exactly 5 ml of the filtrate are evaporated to dryness. The residue is dissolved in 1 ml of chloroform. Detection and identification of alkaloids in extract: Thin layer chromatography: Basic silica gel G plates (15×15 cm); Developing solvent: hexane-chloroform-methanol A. 8:2:0.25; B. 4:5:1. Detection of spots by spraying with modified Dragendorff's reagent. Rf values of II, III, IV, V and VI are 0.13, 0.28, 0.46, 0.56 and 0.79, respectively with A. Rf value of I is 0.58 with B. Estimation of alkaloid contents: After spraying, the plate is covered immediately with a glass plate of the same size and left to stand for 2 hours to allow the spots to reach stability. The spots are scanned with a Shimadzu Dual-Wavelength TLC Scanner CS-910. The results are calculated by comparison with standards spotted on the same plate.

Keywords: Protopine d-Isocorynoline d-Corynoline Tetrahydrocoptisine Acetylcorynoline Tetrahydrocorysamine TLC-densitometry *Corydalis bungeana* Turcz

收稿日期 1984-07-30 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献:

本刊中的类似文章

1. 徐晓莹;李宝明;何丽一;相乐和彦;大岛俊幸;平山总良.苦地丁中异喹啉生物碱的反相离子对高效液相色谱分析法[J]. 药学学报, 1994,29(10): 785-789

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(246KB)
- ▶ [HTML全文]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 苦地丁
- ▶ 异喹啉生物碱
- ▶ 普洛托品
- ▶ 右旋紫堇灵
- ▶ 右旋异紫堇灵
- ▶ 四氢黄连碱
- ▶ 乙酰紫堇灵
- ▶ 苦地丁5号
- ▶ 薄层光密度法

本文作者相关文章

- ▶ 何丽一
- ▶ 张亚斌

PubMed

- ▶ Article by
- ▶ Article by

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标题	<input type="text"/>	验证码	<input type="text" value="0714"/>