

论文

厚朴DNA分子标记的研究正品的RAPD研究

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摘要:

目的利用RAPD技术探讨厚朴种内关系、道地性问题;寻找正品厚朴DNA指纹特征。方法选择代表厚朴主要分布区的11个产地33个的个体材料作为样本,经DNA提取,用74个随机引物进行PCR扩增。结果从17个引物中得到116条带,用于种内关系探讨,经聚类分析,得到3个主要分支及反映正品种及优良品种的特异性引物和条带。结论(1)将厚朴分为3个地理宗更合适,分别是:典型的厚朴、典型的凹叶厚朴及中间类型,这与叶的形态等性状一致;(2)“川朴”及“温朴”有明显的遗传分化,且与有效成分相关,故厚朴的道地性主要来源于遗传差异;(3)具有代表性的样品研究结果可用于正品厚朴DNA指纹鉴别库的建立。

关键词: 厚朴 凹叶厚朴 过渡类型 RAPD 道地性

RESEARCH ON DNA MOLECULAR MARKER OF *MAGNOLIA OFFICINALIS* REHD. ET WILS. RAPD STUDY ON CERTIFIED SPECIES

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Abstract:

AIM To discuss the intraspecific relationship in *Magnolia officinalis* and the genuineness of Cortex *Magnoliae officinalis*, and to find some DNA characters of certified "Houpo". METHODS Thirty-three samples from eleven locations, which can represent most of the distribution of *M.officinalis*, were selected. The total DNA was extracted. Seventy-four random primers were tried to get good amplification. RESULTS One hundred and sixteen bands amplified from seventeen primers, were clustered by NTSYS-pc software. Three branches were obtained. Some distinctive primers and bands, which represent certified species or fine breed, were obtained also. CONCLUSION 1) *M.officinalis* should be divided into three geographic clans instead of two subspecies or varieties, they are, a) typical *officinalis*, b) typical biloba and c) Middle type. This conclusion agrees with the leaf form and other characters. 2) The genetic difference between "Chuanpo" and "Wenpo" is evident and the difference is in correspondence with the quantities of their chemical constituents. So, the genetic difference is the main reason of the genuineness of Cortex *Magnoliae officinalis*. 3) These results may be used to establish DNA database for identification of Cortex *Magnoliae officinalis*.

Keywords: *M.officinalis* var biloba Middle type RAPD genuineness *Magnolia officinalis*

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3. 宋万志;崔建芳;章观德.木莲属土厚朴的研究[J]. 药学学报, 1989,24(4): 295-299
4. 黄平;杨敏;赖茂祥;郑学忠;西正敏;中西勤.中药地枫皮的化学成分研究[J]. 药学学报, 1996,31(4): 278-281
5. 崔建芳;章观德;宋万志.反相离子对高效液相色谱分析厚朴类原植物中季铵生物碱[J]. 药学学报, 1988,23(5): 383-387
6. 宋万志;陈建民;季庆义.木兰科药用植物的研究——II.厚朴的原植物和资源利用[J]. 药学学报, 1984,19(3): 213-219
7. 陈德昌;刘家旺.厚朴和大叶木兰中厚朴酚与和厚朴酚的含量测定[J]. 药学学报, 1982,17(5): 360-364
8. 贺帅, 雷正杰, 张守尧, 张忠义.超临界快速膨胀法制备厚朴SCF-CO₂萃取物超微颗粒及其溶出度和药动学考察[J]. 药学学报, 2009,44(5): 532-539

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