

农业生物技术科学

枳壳基因组DNA提取方法的比较研究

杨春霞<sup>1</sup>,叶金山<sup>2</sup>,温强<sup>2</sup>,朱培林<sup>2</sup>

1. 江西省林业科学院

2.

摘要:

以枳壳(酸橙)叶片为试验材料,分别采用改良CTAB法、CTAB-硅珠法、SDS法、高盐低pH值法和周世良法5种方法提取枳壳基因组DNA,并通过紫外分光光度计、琼脂糖凝胶电泳及SSR-PCR扩增3种方法对所提取的DNA样品进行检测。结果表明,5种方法中SDS法提取的DNA浓度最高(平均为900 ng/ul),纯度最好(OD260/OD280平均值为1.90),且SSR-PCR扩增结果与紫外分光光度计和凝胶电泳检测结果基本一致。因此,SDS法是枳壳DNA最佳提取方法,可用于分子检测试验。

关键词: 枳壳 基因组DNA DNA提取方法

Comparison of 5 Different Extraction Methods for Citrus aurantium DNA

Abstract:

Five methods namely improved CTAB method, CTAB-silica extraction method, SDS method, low pH extraction method with high salt and Zhou shiliang method were adopted to extract genome DNA from the leaves of Citrus aurantium. And three methods including ultraviolet spectrophotometer, agarose gel electrophoresis and SSR-PCR amplification were used to detect extracted sample DNA. The results indicate that SDS method is better than other 4 DNA extraction methods, DNA concentration is highest (Its average is 900 ng/ul) and DNA purity is best (Its average is 1.90), and SSR-PCR amplification results with UV-spectrophotometer and gel electrophoresis test results are basically the same. So SDS method is the best DNA extraction method for Citrus aurantium, and DNA quality suitable for molecular detection experiment.

Keywords: Citrus aurantium L Genome DNA DNA extraction methods

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通讯作者: 杨春霞

作者简介:

作者Email: kelongrenyihao@126.com

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