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介绍一种简单高效的植物总RNA提取方法 Introduction of a Simple and Effective Method for Plant Totle RNA Isolation

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摘要　在液氮中研磨小麦幼叶和不同发育时期的种子,经含0.1% SDS和0.1%十二烷基肌氨酸钠(LDS)的尿素缓冲液裂解后,醋酸钠和氯仿沉淀变性蛋白质,异丙醇沉淀核酸,溶解后经2.5mol/L LiCl沉淀总RNA,洗涤后就可得到高质量的总RNA,其OD260/OD280 为2.05~2.10,28S和18S RNA带清晰,叶片总RNA还可得到23S和16S RNA带,产率可达5mg RNA/10g材料。当使用含1% SDS和1% LDS的尿素缓冲液裂解材料时,则可用于DNA的分离提取,其分子大小可达50~100kb以上。

Abstract:Wheat leaf and seeds at different development stages had been squashed in liquid nitrogen,then lysised by urea buffer which contains 0.1% SDS and 0.1% LDS,denatured protein had been removed by NaAc and chloroform precipitation,total RNA was further purified by LiCl.The RNA we obtained had sharp bands of 28S and 18S after agarose gel electrophoresis,23S and 16S RNA bands can also be seen clearly in leaf RNA extract,the value of OD260/OD280 of RNA was 2 05~2 10.5mg RNA can been isolated from 10g leaf of wheat.This method can also been used in high molecular weight DNA isolation but the concentration of SDS and LDS must be increased to 1%.

关键词　植物RNA分离提取　尿素　氯化锂 Key words　plant RNA isolation　urea　LiCl

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Abstract

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