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an Illumina® company

QuickExtract™ Seed DNA Extraction Solution

Cat. Nos. QES08095T and QES080950

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1. Introduction

The QuickExtract™ Seed DNA Extraction Solution is a fast, simple and inexpensive method for preparing genomic DNA for PCR amplification from under 10 mg of ground plant seed. After grinding the seed sample, the subsequent DNA extraction requires only heat treatment to lyse the ground seed and release DNA for PCR amplification.

The solution has been used to successfully extract PCR-amplifiable DNA from maize and rice seeds. Single-copy gene targets were amplified successfully.

Product Specifications

Storage: Store only at –20°C in a freezer with-out a defrost cycle. Limit freeze/thaw cycles as much as possible by aliquoting into desired sample size on arrival.

Quality Control: QuickExtract Seed DNA Extraction Solution is function-tested by assaying for the production of an ~750-bp PCR product from the R1 resistance locus (NBS-LRR type) from rice seeds.

2. Kit Contents

Cat. #	Quantity
QuickExtract™ Seed DNA Extraction Solution	
QuickExtract™ Seed DNA Extraction Solution is available in a 5-ml and 50-ml volume.	
QES08095T	5 ml
Sufficient for 50 x 100-µl extractions.	
QES080950	50 ml
Sufficient for 500 x 100-µl extractions.	

Note: *QuickExtract™ Seed DNA Extraction Solution is designed for use on samples weighing less than 10 mg. DNA extracted from larger sample sizes will not produce satisfactory PCR results.*

3. Related Products

The following products are also available:

- FailSafe™ PCR PreMix Selection Kit
- QuickExtract™ Plant DNA Extraction Solution
- MasterPure™ Complete DNA and RNA Purification Kit
- MasterPure™ Plant Leaf DNA Purification Kit
- dNTP Solutions

4. Protocol

1. Grind or crush seed samples into small pieces and weigh out <10 mg of sample.
2. Place ground seed or seed fragments into a 500-µl tube or a well of a 96-well plate, add 100 µl of QuickExtract Seed DNA Extraction Solution, and mix by vortexing the sample.
3. Heat the samples at 65°C for 6 minutes then at 98°C for 2 minutes.
4. Place the samples on ice. Use 1 µl of sample as template for PCR (25-50-µl reaction volumes).

5. Troubleshooting

1. If the PCR is unsuccessful using undiluted extract, try using a 1:10 dilution of the extract as template. While it may be counterintuitive to use less starting DNA material, better results are sometimes achieved by reducing the amount of potential PCR inhibitors in the reaction.
2. Optimization of the PCR may be necessary. Epicentre's FailSafe™ PCR PreMix Selection Kit (Cat. No. FS99060) provides a quick optimization procedure to increase success rates.

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