For life science research only.

Not for use in diagnostic procedures.

FOR *IN VITRO* USE ONLY.

Diffinity DNA RapidExtract™ Kit

For rapid cell lysis for PCR-ready DNA Version 2.0

Easy to use reagent kit for extracting DNA from sample material prior to PCR.

Part No. REXD-50/250	Kit for 50/250 reactions

Store the kit at room temperature (+15 to +25 ^{o}C) protected from light.

This product contains alkaline reagents. Please observe general laboratory precautions and wear personal protective equipment.

Follow federal, state, and local regulations, and ensure safety when using or disposing of this product.

1. Diffinity DNA RapidExtract Kit

Number of Tests

The kit is designed for:

250 extraction reactions of blood samples

50 extraction reactions of tissue, cultured cells, bacteria, stool, or plant (leaf and seed) samples.

Kit Contents

Vial	Label	Contents
A	Solution A	5 ml Lysis Reagent
B	Solution B	0.7 ml Stop Solution

Storage and Stability

Store the Kit at +15 to +25 °C protected from light until the expiration date printed on the label.

Application

This kit is designed to easily obtain PCR-ready DNA extract from blood, animal tissues, cultured cells, plants, stool, and other sample types.

Assay Time

Procedure	Time
Combine sample with Solution A and mix.	1 minute
Incubate at 98 °C	8 minutes
Cool to Room temperature	2 minutes
Add Solution B and mix	1 minute
Total Time for Extraction	12 minutes

2. How this Product is Used

Leaf or Seed

1. Put a 5-8 mm^2 piece of plant material to a PCR tube. Add 100 µl of Solution A to the tube and mix well by pipetting.

* The sample size may vary depending on species and condition of the sample.

2. Homogenize the sample in the mixture, such as by crushing it with a pipette tip.

3. Incubate the PCR tube at 98℃ for 8 minutes in a heat block.

* Secure the cap with a cap lock prior to incubation.

4. Cool the tube to room temperature.

* Make sure the tube has cooled down before opening the cap.

5. Add 14 µl of Solution B and mix well.

* Mix the extract from Step 5 before each use.

* If excessive amounts of solid residue are found in the extract, centrifuge the tube at 5000 rpm for 5 minutes at 4℃.

Use 1 to 5 µl of extracted template DNA in 50 µl PCR reaction.

Blood

1. Put 1 to 3 µl of blood to a PCR tube. Add 20 µl of the Solution A and mix well by pipetting.

2. Incubate the PCR tube at 98℃ for 8 minutes in a heat block.

* Secure the cap with a cap lock prior to incubation.

4. Cool the tube to room temperature.

* Make sure the tube has cooled down before opening the cap.

5. Add 3 µl of Solution B and mix well.

* Mix the extract from Step 5 before each use.

* If excessive amounts of solid residue are found in the extract, centrifuge the tube at 5000 rpm for 5 minutes at 4℃.

Use 1 to 5 µl of extracted template DNA in 50 µl PCR reaction.

Tissue (mouse tail)

1. Put a 5-8 mm fragment of mouse tail into a PCR tube. Add 100 µl of Solution A and mix well by pipetting.

* The amount of starting material may vary depending on species and condition of the sample.

2. Homogenize the sample in the mixture, such as by crushing it with a pipette tip.

3. Incubate the PCR tube at 98℃ for 8 minutes in a heat block.

* Secure the cap with a cap lock prior to incubation.

4. Cool the tube to room temperature.

* Make sure the tube has cooled down before opening the cap.

5. Add 14 µl of Solution B and mix well.

* Mix the extract from Step 5 before each use.

* If excessive amounts of solid residue are found in the extract, centrifuge the tube at 5000 rpm for 5 minutes at 4℃.

Use 1 to 5 µl of extracted template DNA in 50 µl PCR reaction.

Cultured cells or Microorganisms

1. Prepare a suspension of $10^3 – 10^5$ cells in a PCR tube.

2. Centrifuge the tube and remove the supernatant. Add 100 µl of Solution A to the cell pellet and mix well by pipetting.

3. Incubate the PCR tube at 98℃ for 8 minutes in a heat block.

* Secure the cap with a cap lock prior to incubation.

4. Cool the tube to room temperature.

* Make sure the tube has cooled down before opening the cap.

5. Add 14 µl of Solution B and mix well.

* Mix the extract from Step 5 before each use.

* If excessive amounts of solid residue are found in the extract, centrifuge the tube at 5000 rpm for 5 minutes at 4℃.

Use 1 to 5 µl of extracted template DNA in 50 µl PCR reaction.

Stool

1. Prepare suspension of stool sample in 100 µl sterilized water. Put 10 µl of the suspension into a PCR tube. Add 100 µl of Solution A to the suspension and mix well by pipetting.

* The starting amount of stool may vary depending on species and condition of the sample.

3. Incubate the PCR tube at 98℃ for 8 minutes in a heat block.

* Secure the cap with a cap lock prior to incubation.

4. Cool the tube to room temperature.

* Make sure the tube has cooled down before opening the cap.

5. Add 14 µl of Solution B and mix well.

* Mix the extract from Step 5 before each use.

* If excessive amounts of solid residue are found in the extract, centrifuge the tube at 5000 rpm for 5 minutes at 4℃.

Use 1 to 5 µl of extracted template DNA in 50 µl PCR reaction.

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