# Trizil Total RNA Extraction Reagent

Cat#:8034011

**[Product name]**
Trizil Total RNA Extraction Reagent

**[Model & Size]**

| Cat No. | Product Name | Specification |
|---|---|---|
| 8034011 | Trizil Total RNA Extraction Reagent | 100 mL/Kit |

**[Product Description]**
The Trizil Total RNA Extraction Reagent can be used to extracte total RNA directly from human, animal, plant and microbial samples.This product is suitable for the extraction of different content of samples, and has good separation effect on tissues (50 mg-100 mg) and cells ($5\times10^6$-$1\times10^7$).
The total RNA extracted by this product contains low content of DNA and protein. And it can be used for RNA blot analysis, dot hybridization, Poly(A)+ selection, in vitro translation and other experiments.
A variety of RNAs of different molecular weights (including 28s rRNA, 18s rRNA, 5s rRNA) can be extracted. When the extracted total RNA is diluted with TE solution, and its ratio(A260/A280) is more than 1.8.

**[Storage And Transportation]**
Store at 2℃~8℃, away from light. Valid for 12 months. Transported on blue ice.

**[Instruction]**
**1. Homogenization for samples**
a. Cell suspension or biological fluid
Resuspend the cell sample by centrifugation to obtain a cell precipitation, then add 1 mL Trizil to $5\times10^6$ animal cell, $1\times10^7$ yeast cell or bacteria and mix by pipetting. Among them, 1 mL Trizil should be added to each 0.25 mL liquid sample (serum, plasma, cerebrospinal fluid, etc.) and pipetted to mix.
b. Tissue
Use a tissue homogenizer to process tissue samples, add 1mL Trizil to each (50~100) mg tissue or 0.25 mL tissue suspension and mix by pipetting. If there is high requirement for RNA integrity and quality, you should first use liquid nitrogen to freeze the tissue at ultra-low temperature, then use a mortar to process the tissue in a low-temperature, and finally add Trizil.
c. Adherent cells
Add 1 mL Trizil to each 10 $cm^2$ cell culture plate and mix by pipetting. In general, when using a six-well plate, 1 mL Trizil should be added to each well, and when using a 12-well plate, 0.5 mL Trizil should be added to each well. Shake horizontally on the table for 3 - 5 times, then use a pipette to pipet 2 - 3 times repeatedly to ensure that the cell sample is completely lysed, and finally use a pipette to suck the liquid into a new RNase-free centrifuge tube.
**2. Isolate the RNA**
Incubate the lysed sample at room temperature (15℃~30℃) for 5 minutes, add an appropriate amount of chloroform (0.2 mL chloroform/1mL Trizil), shake vigorously for 15 seconds, and then place it at room temperature for incubation 2-5 minutes. Centrifuge at 2℃~8℃ for 15 minutes at a speed not exceeding 12,000 g. The centrifuged mixture was divided into three layers: the lower phenol-chloroform layer, the middle layer, and the upper colorless water-like layer. RNA is present in the upper colorless water-like layer, and the capacity of the upper colorless water-like layer is about 60% of the capacity of Trizil.
**3. Precipitate the RNA**

Use a pipette to transfer the upper colorless water-like layer to another new RNase-free centrifuge tube. Add an equal volume of isopropyl alcohol into the centrifuge tube. Invert it up and down several times and incubate it at room temperature 10 minutes. Centrifuge at 2℃~8℃ for 15 minutes at a speed not exceeding 12,000 g. And finally RNA will form a white film-like precipitate that adheres to the wall and bottom of the centrifuge tube.

**4. Rinse the RNA**

Remove the supernatant with a pipette, add 75% ethanol prepared with DEPC water into the centrifuge tube (at least 1 mL of 75% ethanol should be added to every 1 mL of Trizil), and invert it several times. Centrifuge at 2℃~8℃ for 5 minutes at a speed not exceeding 7,500 g, and discard the 75% ethanol. It is recommended to repeat this step again.

**5. Dissolve the RNA**

Dry RNA precipitation at room temperature 5-10 minutes, dissolve total RNA with RNase-free water or TE buffer and store at -70℃.

**[Precaution]**

1. It is recommended to operate in a chemical fume hood. All centrifuge tubes, pipette tips and related solutions must be free of RNase contamination. High-temperature-resistant utensils can be baked at 150°C for 4 hours to remove RNase. For other RNase removal, consider soaking in 0.01% DEPC water overnight, then sterilizing and drying.
2. Prepare your own chloroform, isopropyl alcohol, 75% ethanol (prepared with DEPC water), RNase-free water or TE buffer.
3. Samples treated with Trizil can be stored at -70°C for one month. The RNA precipitation can be stored in 75% ethanol at -20°C for one year.
4. When the maximum centrifugal force of the centrifuge is 2,600 g, extending the centrifugation time to 30-60 minutes can satisfy the steps 2 and 3 of the method of application.
5. If the extracted RNA is used for PCR, it was recommended to use DNaseI(Amplification Grade) when the two primers were located within a single exon.
6. Trizil contains the toxic substance phenol, and experimenters should be careful not to let it come into contact with the skin or inhale it. To prevent splashing into your eyes, please wear protective glasses or use a clear protective mask. If Trizil comes into contact with your skin, rinse immediately with plenty of detergent and water. If you still feel unwell, seek medical attention immediately.
7. This product is only for scientific research use by professionals. For your safety and health, please wear a lab coat and disposable gloves.

**[Description Of Product Symbol]**

| Product Symbol | Description | Product Symbol | Description |
|---|---|---|---|
| REF | Catalog Number | LOT | Batch code |
|  | Date of Manufacture |  | Manufacturer |
|  | Keep away from light |  | Use-by date |
|  | Consult instructions for use |  | Temperature limit |

**[Company Information]**

**Manufacturer and after-sales service unit Name:** Shenzhen Dakewe Bio-engineering Co., Ltd.
**Website:**www.dakewe.com
**Telephone:** (86-755) 86235300
**Email:** RD@dakewe.com
**Address:** Room 702-703, Building No.1, Shenzhen Biomedicine Innovations Industrial Park,No.14 Jinhui Road, Kengzi Street, Pingshan District, Shenzhen, China
**After-sales service telephone:** (86-755) 86235300
**Zip Code:** 518122