

RNA Phenol Reagent

Cat. No.: R1518313 | Pack size: 250 mL | Storage: 2-8°C, protected from light

Overview

This reagent is an RNA extraction phenol reagent saturated with citric acid. It appears as a colorless, clear liquid with a pungent odor. The upper layer consists of a citric acid solution with pH < 5.5, while the lower layer is the organic solvent. This product does not contain 8-hydroxyquinoline and is typically used in conjunction with guanidine isothiocyanate for RNA extraction.

This reagent is for research use only and is not intended for clinical diagnosis or other purposes.

Materials to Prepare

- Tissue Lysis Buffer
- Sodium Acetate Buffer (2M, pH 4.0)
- Chloroform
- Isoamyl alcohol
- Isopropanol
- 75% Ethanol
- TE Buffer

Procedure (For Reference Only)

Take an appropriate amount of Tissue Lysis Buffer and sequentially add the following reagents for RNA extraction:

1. Add 0.1 volume of 2 mol/L Sodium Acetate (pH 4.0) to maintain an acidic environment.
2. Add 1 volume of RNA Phenol Reagent (Note: Allow the reagent to stand before use; use the lower organic phase. The upper layer is the citric acid solution, which prevents oxidation of the lower organic phase).
3. Add 0.2 volume of Chloroform:Isoamyl alcohol (49:1), vortex for 10 seconds to mix thoroughly, then incubate on ice for 15 minutes.
4. After centrifugation, carefully transfer the upper aqueous phase to a new tube. Add an equal volume of isopropanol to precipitate the RNA. Wash the precipitate once with 75% ethanol, air-dry briefly, and dissolve in 10 µL of DEPC-treated water for subsequent use.

Precautions

1. RNA Phenol Reagent is highly corrosive. Avoid skin contact or inhalation. If the reagent turns red or brown, it indicates oxidation and should not be used.
2. For your safety and health, please wear a lab coat and disposable gloves during operation.
3. Use the reagent as soon as possible after opening to prevent affecting subsequent experimental results.

Specifications

Attribute	Value
Specifications & Purity	BioReagent, Suitable for molecular biology
Stability And Storage	Store at 2-8°C long term (12 months). Store in the dark.
Storage Conditions	Store at 2-8°C, Protected from light
Shipped In	Wet ice This product requires cold chain shipping. Ground and other economy services are not available.
Grade	BioReagent, Suitable for molecular biology

Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, the North American office is the corporate primary.

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Limitations & Disclaimer

- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.
- Where any kit component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.
- Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the product for their specific application.
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