

HelixZol Reagent

Catalog Number: **HBTRR001-RX100**

Storage: **2-8 °C**

Components: **100 ml**

HelixZol is an easy-to-use solution that can be used for rapid and efficient isolation of RNA from various sources, including bacteria, animals, yeast, and plants

FEATURES

- Single-step for the isolation of total RNA from tissues, cells, bacteria, plants, yeasts, and biological fluids
- The entire procedure for total RNA isolation is less than 1 hour

APPLICATIONS

For 100 applications or reactions

PROCEDURE FOR RNA ISOLATION

1. Grind 100 mg of tissue with liquid nitrogen in a sterile pestle mortar. Alternatively, tissue can be homogenized using a glass-Teflon or Polytron homogenizer or another suitable homogenizer
2. Add 1 ml of Tri-RNA Reagent to 100 mg of tissue
3. Incubate the homogenate for 5 minutes at room temperature with intermittent mixing on a vortex mixture
4. Add 0.2 ml of molecular biology grade chloroform (not provided) and mix vigorously
5. Centrifuge at 12,000 -14,000 x g for 10 minutes at 4°C to separate the phases
6. Transfer the RNA present in the upper aqueous phase to a fresh 1.5 ml microfuge tube*
7. Precipitate RNA by adding an equal amount of isopropanol (IPA), and mix properly by inverting tubes followed by incubation at room temperature for 10 minutes#
8. Recover the precipitated RNA by centrifugation at 15,000 x g for 15 minutes at 4°C
9. Discard the supernatant, and wash the RNA pellet with 0.5 ml of ice-cold 75% ethanol. Centrifuge at 12,000 -14,000 x g for 5 minutes at 4°C, and carefully discard the supernatant
10. Recentrifuge briefly and carefully remove any residual supernatant without disturbing the RNA pellet
11. Allow the RNA pellet to vacuum or air dry at room temperature for 10-15 minutes
12. Resuspend the RNA in DEPC-treated water or Tris-EDTA, pH 8.0
13. Store the RNA sample at -80 °C

PRECAUTIONS

- Use DEPC-treated water to prepare 75% ethanol or Tris-EDTA, pH 8.0
- Utilize sterile or RNase-free tips, tubes, and gloves to avoid RNase contamination
- Handle both drying and resuspending the RNA pellet with utmost care

NOTES

*It is important to do this step carefully as pipetting debris from the interface of the aqueous and organic phase, will determine the overall quality of RNA. For beginners, we suggest taking the first aliquot of 250 µl and precipitating with an equal volume of IPA in a separate tube. The remaining aqueous phase can be transferred to a separate tube followed by RNA precipitation with an equal volume of IPA

#For enhanced recovery incubation can be prolonged by incubating the tube at -20°C for 1 hour to overnight. This is also a safe stopping point in the procedure
HelixZol Reagent is used only for Research purposes

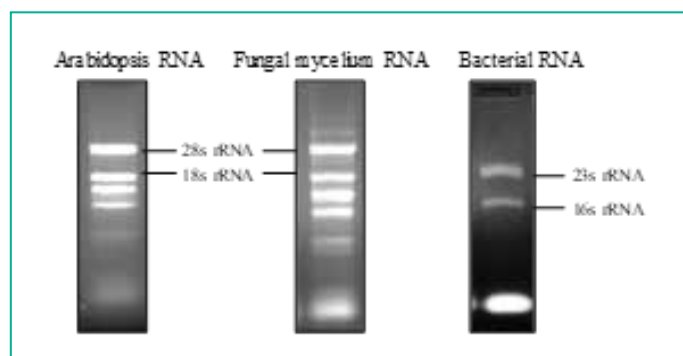


Figure: Agarose gel electrophoresis of total RNA isolated with HelixZol from diverse organisms



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sales@helixbiosciences.com



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1800 890 4669



011-41613622, 011-45062522