Product Description

AcuGenix™ NGS RNA Clean Beads uses solid phase reversible immobilization (SPRI) magnetic bead technology. With a specifically optimized buffer system, it efficiently binds RNA and removes proteins, salts, and other impurities. This product can be used to purify total RNA samples after rRNA removal, in vitro-transcribed RNA products, RNA labeling products, synthetic RNA, and even RT-PCR products. Purified RNA is suitable for RNA library construction, RT-PCR, RT-qPCR, and other experiments.

Components

Product Name	Cat. No.	Size
AcuGenix™ NGS RNA Clean Beads	BR3N402-01	1 mL
	BR3N402-02	5 mL
	BR3N402-05	60 mL
	BR3N402-06	450 mL

Storage

Store at 2-8℃.

Notes

1. Remove the beads from 2-8℃ storage about 30 min in advance and allow them to equilibrate to room temperature to ensure RNA recovery.
2. Mix thoroughly by vortexing or repeated inversion before use.
3. Strictly avoid RNase and nucleic acid contamination during operation.
4. Prepare the 80% ethanol used for washing with nuclease-free H_2O to prevent RNase introduction and RNA degradation.
5. During washing with 80% ethanol and air-drying with the lid open, avoid over-drying the beads. If cracks appear on the bead pellet, the beads are over-dried and RNA elution efficiency may decrease.
6. Do not freeze the beads.

Protocol

1. Reagents and Equipment Required

Magnetic separator (magnetic rack).
Vortex mixer.
Freshly prepared 80%(V/V) ethanol.
Nuclease-free H_2O.

2. RNA Purification

2.1 Remove the bead suspension from 2-8℃ storage 30 min in advance and allow it to equilibrate to room temperature.
2.2 Mix the bead suspension thoroughly by inversion or vortexing. Add Biori NGS RNA Clean Beads to the RNA sample according to the original RNA solution volume. The bead volume for each reaction can be calculated using the following equation:
RNA Clean Beads volume per reaction = 1.8×(sample volume).
2.3 Pipette 10 times to mix thoroughly and incubate at room temperature for 5 min. If the sample to be purified is a cDNA product or contains a high protein level, incubate at room temperature for 10 min and mix by pipetting every 5 min to improve protein removal.
2.4 Place the sample on a magnetic rack. After the solution becomes clear, carefully remove the supernatant.
2.5 Keep the sample on the magnetic rack, add 200 µL of freshly prepared 80% ethanol to wash the beads, incubate at room temperature for 30 s, and remove the supernatant with a pipette.
2.6 Repeat Step 2.5 once for a total of two washes. After the second wash, remove as much residual wash solution as possible.
2.7 Keep the sample on the magnetic rack and air-dry the beads with the lid open at room temperature for about 2-5 min until the bead surface is no longer glossy. Cracking indicates over-drying.
2.8 Remove the sample from the magnetic rack, add an appropriate volume of nuclease-free H_2O, vortex to mix, and incubate at room temperature for 2 min.

2.9 Place the sample on the magnetic rack until the solution becomes clear. Transfer the supernatant to a new nuclease-free centrifuge tube. The purified RNA can be used directly for downstream studies or stored at -20℃ for short-term storage. Because purified RNA is readily degraded, store it at -80℃ for long-term storage.