NGS RNA Clean Beads

Cat.No.: HYD513

Product Description

This kit utilizes a unique magnetic bead and buffer system that specifically binds RNA, effectively removing proteins, salt ions, and other contaminants. It is commonly used for the purification of total RNA samples after rRNA depletion, in vitro transcribed RNA, labeled RNA products, and synthetic RNA. The purified RNA is suitable for downstream applications such as RNA library construction, RT-PCR, qRT-PCR, microarray analysis, Northern blot, and RNA interference (RNAi).

Components

Components	Size-1	Size-2	Size-3
NGS RNA Clean Beads	1 mL	5 mL	60 mL

Storage

Store at 2-8℃ for 2 years.

Instructions

1. Required Additional Reagents

100% ethanol, nuclease-free water, magnetic stand, nuclease-free centrifuge tubes.

2. Experiment Preparation

1) Take out the NGS RNA Clean Beads from 4℃ and equilibrate at room temperature for about 30 mins before use.
2) Dilute 0.5-5 μg total RNA to final volume of 50 μL with Nuclease-free water in a Nuclease free PCR tube and keep the tube on ice.

2. RNA Purification

1) Invert or vortex the magnetic beads thoroughly to ensure homogeneity. Add 2× volume of beads (100 μL) to the RNA sample (50 μL), and mix well by pipetting up and down 6 times.
2) Incubate at room temperature for 5 min to allow RNA binding to the beads.
3) Place the sample on a magnetic stand for 5 min. Once the solution clears, carefully remove the supernatant.

4) While keeping the sample on the magnetic stand, add 200 µL of freshly prepared 80% ethanol to wash the beads. Incubate at room temperature for 30 sec, then carefully remove the supernatant.

Note: The 80% ethanol must be freshly prepared using nuclease-free water to prevent RNase contamination and RNA degradation.

5) Repeat step 4 for a second wash.

6) Keep the sample on the magnetic stand, open the lid, and air-dry the beads for 5 min.

Note: Avoid over-drying the beads. If cracks appear on the surface of the beads, it indicates excessive drying, which may reduce elution efficiency.

7) Remove the sample from the magnetic stand and add 12 µL of nuclease-free water. Mix thoroughly by pipetting up and down 6 times. Incubate at room temperature for 5 min.

8) Place the sample back on the magnetic stand for 5 min. After the solution clears, carefully transfer 10 µL of the supernatant into a new nuclease-free PCR tube.

Note: Leave 2–3 µL of liquid behind to avoid aspirating any beads, which could interfere with downstream experiments. The purified RNA is highly unstable; proceed to the next step immediately if possible. If storage is necessary, keep at –80 °C.

Notes

1. This product is for research use only.
2. Please operate with lab coats and disposable gloves, for your safety.
3. Magnetic beads must be brought to room temperature and fully mixed before use; otherwise, recovery efficiency may be affected.
4. Maintain strict RNase-free conditions throughout the procedure to prevent RNA degradation.
5. Freshly prepared 80% ethanol is required; stale ethanol may reduce recovery efficiency.
6. When used in combination with other reagents or kits, follow the specific instructions provided for each application.