HB220412

Hieff NGS™ RNA Cleaner

Product Information

Product Name	Cat#	Specification
Hieff NGS™ RNA Cleaner	12602ES08	5 mL
	12602ES56	60 mL
	12602ES75	450 mL

Product Description

This kit adopts efficient magnetic beads, combined with a unique buffer system, which can specifically bind RNA and effectively remove proteins, salt ions and other impurities. It is often used to purify total RNA samples after rRNA removal, in vitro transcribed RNA products, RNA-labeled products, and synthetic RNAs. And the purified RNA is suitable for RNA library construction, RT-PCR, qRT-PCR, chip analysis, Northern Blot and RNAi experiments.

Shipping and Storage

The beads are shipping with ice packs and can be stored at 2-8°C for one year. **Avoid freezing!**

Instructions

Additional reagents required:

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

Preparation

(1) Take out the RNA clean beads from 4°C and equilibrate at room temperature for about 30 min before use.

(2) Dilute 0.5-5 μg of total RNA to final volume of 50 μLwith Nuclease-free water in a Nuclease free PCR tube and keep the tube on ice .

RNA purification

(1) Invert or vortex to mix the magnetic beads thoroughly, pipette 2×magnetic beads (100 μL) into the total RNA sample (50 μL), and mix well by pipetting up and down 6 times.

(2) Incubate for 5 min at room temperature to allow RNA to bind to the magnetic beads.

(3) Place the tube on a magnetic stand for 5 min. After the solution is clear, carefully remove the supernatant.

(4) Keep the sample on the magnetic stand, add 200 μL of freshly prepared 80% ethanol without disturbing the beads, incubate at room temperature for 30 s, and carefully remove the supernatant.

[Note] The 80% ethanol used for rinsing needs to be freshly prepared with Nuclease-free water to prevent RNA degradation caused by the introduction of RNase enzymes.

(5) Repeat step 4 for a total of 2 times.

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

[Note] Do not over-dry the selection beads. When the magnetic beads start to crack, it indicates that they are too dry, which may result in lower recovery RNA target.

(7) Add 12 μL of Nuclease-free water, pipette 6 times to mix well, and incubate at room temperature for 5 min.

(8) Place the tube on a magnetic stand for 5 min. After the solution is clear, carefully transfer 10 μL of the supernatant to a new Nuclease-free PCR tube.

[Note] It is recommended to leave 2-3 μL of liquid when transferring the supernatant, in case absorb the magnetic beads and affect the subsequent experiments. The obtained RNA is extremely unstable, and it is recommended to proceed to the next step or store the obtained RNA at -80°C as soon as possible.

Cautions

1) The magnetic beads must be equilibrated to room temperature and mixed well before use, otherwise the recovery efficiency of the sample may be affected.

2) The operation process should strictly ensure that there is no RNase enzyme and nucleic acid contamination.

3) When using this kit together with other reagents, please follow the specific experimental instructions.

4) For research use only!

Results

Changes in qRT-PCR Ct values of RNA samples before and after using the total RNA purification kit

RNA Sample	**Human**		**Mouse**		**Arabidopsis**	
Detect genes	GAPDH	β-Actin	GAPDH	β-Actin	PP2A	TUB2
Ct before purification	12.92	12.36	18.74	18.53	24.33	22.2
Ct after purification	12.32	11.89	17.62	17.91	23.38	21.35

【Note】Using Hieff NGS™ RNA Cleaner can effectively remove inhibitorsof RT-PCR, making the results of the experiments more accurate.