CYRN62-CHANGYU RNAclean Plus Enhanced RNA Clean Kit (with small RNA)

Catalog number	Package
CYRN6201	50 preps

Storage and shipping: room temperature. Stable for 12 months. After adding ethanol, Wash Solution 1 and Wash Solution 2/3 can be stored at room temperature. Wash Solution 2/3 may form crystals a few days after adding ethanol; avoid the crystals and use the supernatant. Keep all solutions tightly capped after use.

Description

Under specific high-salt conditions RNA, including microRNA and other small RNAs, binds efficiently and specifically to the silica membrane while proteins, inorganic ions and many organic impurities are removed; RNA is eluted under low-salt conditions. Up to 100 µg of RNA can be processed per column. The kit is used to purify and recover RNA from enzymatic reactions (for example DNase treatment, in vitro transcription, RNA capping, protease treatment or RNA labeling) and to purify RNA obtained by other extraction methods. It purifies both large RNAs such as mRNA and small RNAs including microRNA. The purified total RNA is free of protein contamination and is suitable for NGS RNA library construction, reverse transcription real-time PCR, Northern blot, formation of ribonucleoprotein (RNP) complexes for genome editing, microinjection, RNA labeling, RNA interference, transfection and other downstream applications.

Kit components

Component	50 preps (CYRN6201)
Binding Buffer MRC	10 ml
Wash Solution 1	12 ml (add ethanol before first use)
Wash Solution 2/3	10 ml (add ethanol before first use)
RNase-free H2O	10 ml
RNase-free spin columns RA and collection tubes	50 sets

Notes before starting

Note: All centrifugation steps are carried out at room temperature at 13,000 rpm in a conventional benchtop centrifuge.

Note: For very small RNA samples, a special ultra-micro spin column can be selected to recover micro-scale samples.

❖ Procedure

Before first use, add the indicated amount of ethanol to Wash Solution 1 and Wash Solution 2/3. All steps can be performed at room temperature, but work quickly to minimize RNA degradation.

1. On ice, adjust the RNA sample to 100 µl with RNase-free H2O and add 200 µl of Binding Buffer MRC. Mix well.

2. Add 375 µl (1.25 volumes) of absolute ethanol and mix. No centrifugation is required. For recovery of RNA larger than 25 nt, 1.25 volumes of ethanol are sufficient; to recover RNA larger than 15 nt, use 2 volumes of absolute ethanol.

3. Transfer the solution, together with any precipitate, to spin column RA placed in a collection tube. Centrifuge at 13,000 rpm for 30 seconds, discard the flow-through and return the column to the collection

tube.

4. Add 700 µl of Wash Solution 1 (check that ethanol has been added), centrifuge at 13,000 rpm for 30 seconds and discard the flow-through.

5. Add 500 µl of Wash Solution 2/3 (check that ethanol has been added), centrifuge at 13,000 rpm for 30 seconds and discard the flow-through.

6. Repeat step 5 once.

7. Return column RA to the empty collection tube and centrifuge at 13,000 rpm for 2 minutes to remove residual wash buffer, since residual ethanol can inhibit downstream reactions.

8. Remove column RA and place it in an RNase-free centrifuge tube. Apply 50-80 µl of RNase-free water to the centre of the membrane (prewarming to 80-90 °C improves elution), leave at room temperature for 2 minutes and centrifuge at 13,000 rpm for 1 minute. If more RNA is needed, reload the eluate onto the column and centrifuge for 1 minute, or add another 30 µl of RNase-free H2O, centrifuge for 1 minute and combine the two eluates. A larger elution volume increases elution efficiency; a smaller volume gives a higher RNA concentration, but the minimum volume should preferably not be less than 30 µl.

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.