CYRN57-CHANGYU FASTspin SuperSpeed RNA Mini Kit

Catalog number	Package
CYRN5701	50 preps

Storage and shipping: 15-25 °C. Stable for 12 months. Do not store at 4 °C or -20 °C, as precipitation affects performance. Keep all solutions tightly capped after use.

Description

This kit is designed for 7-10 minute ultra-fast RNA extraction from cultured cells, bacteria and body fluids (urine, ascites, pleural fluid, cerebrospinal fluid, etc.). The typical input is 10^4-10^6 cells or less than 1 ml of overnight bacterial culture. The RNA is suitable for routine RT-PCR, quantitative RT-PCR, expression array analysis, cDNA synthesis, cDNA library construction and Northern blot.

Kit components

Component	Storage	50 preps (CYRN5701)
Lysis Buffer RA2	15-25 °C	25 ml
Deproteinization Buffer RW1	15-25 °C	40 ml
Wash Buffer RW	15-25 °C	10 ml (add ethanol before first use)
RNase-free H2O	15-25 °C	10 ml
RNase-free micro RNA spin columns and collection tubes	15-25 °C	50 sets

Features

A fast total-RNA method with few steps.

RNA quality comparable to Trizol extraction, with more stable handling, less RNA loss, less variation between batches and less DNA and protein contamination.

Good RNA integrity, high purity and high yield, meeting the requirements of routine RT-PCR and real-time PCR.

Broad applicability: cells, some bacteria, body fluids and culture supernatant.

Can process serum, plasma and other body fluids directly.

Well suited to viral RNA extraction from clinical specimens for RT-PCR detection.

Production is RNase-controlled; all containers and reagents are RNase-treated.

No toxic phenol, chloroform or β-mercaptoethanol and no ethanol precipitation step.

Notes before starting

Note: All centrifugation steps are carried out at room temperature at 12,000 rpm in a conventional benchtop centrifuge.

Note: Absolute ethanol must be supplied by the user.

❖ Procedure

Read the notes before starting. Before first use, add the indicated amount of absolute ethanol to Wash Buffer RW. All steps are performed at room temperature. The procedure has two parts: (1) sample pretreatment; (2) sample purification.

(1) Sample pretreatment

a. Cultured cells: centrifuge suspension cells and leave the pellet with an appropriate amount of supernatant (100 µl per 2×10^6 cells); vortex thoroughly until no cell clumps remain (important). Take 100 µl into an Eppendorf tube. For adherent cells, trypsinize and treat as above.

b. Some bacteria: centrifuge 1 ml of well-grown bacterial culture and leave the pellet with about 100 µl of supernatant; vortex thoroughly until no cell clumps remain (important).

c. Body fluids and other liquid samples: take 1-10 ml of urine, ascites, pleural fluid, cerebrospinal fluid, etc. as needed, centrifuge for 2 minutes, leave the pellet with about 100 µl of supernatant and vortex thoroughly to resuspend. In some cases 100 µl of sample can be used directly.

(2) Sample purification

1. Add 500 µl of Buffer RA2 to the pretreated sample and mix thoroughly by inversion for 1 minute.

2. Load the mixture onto an RNA spin column placed in a collection tube and centrifuge at 12,000 rpm for 30 seconds. Discard the flow-through.

3. Add 700 µl of Deproteinization Buffer RW1 and centrifuge at 12,000 rpm for 30 seconds. Discard the flow-through.

4. Add 500 µl of Wash Buffer RW (check that ethanol has been added) and centrifuge at 12,000 rpm for 30 seconds. Discard the flow-through.

5. Optional (for higher purity): add another 500 µl of Wash Buffer RW and repeat the wash.

6. Return the column to the empty collection tube and centrifuge at 12,000 rpm for 2 minutes to remove residual wash buffer, since residual ethanol can inhibit downstream reactions.

7. Remove the column and place it in a clean 1.5 ml centrifuge tube. Apply 25-50 µl of RNase-free water to the centre of the membrane, leave at room temperature for 1 minute and centrifuge at 12,000 rpm for 1 minute.

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