

Spin Viral DNA/RNA Kit

Cat.No.: HYC425

Product Description

This kit is designed for simple, rapid and efficient isolation and purification of DNA/RNA from whole blood, tissue homogenate, swabs, and cell-free body fluids such as serum and plasma. Its unique buffer system enables highly efficient and specific binding of viral nucleic acids in lysate to silica-membrane spin columns. The purified viral nucleic acids feature high purity and stable quality, free of proteins, nucleases and other contaminants, and are suitable for various routine applications including PCR and real-time PCR.

Components

Components	50T
Buffer RLC	30 mL
Buffer PGWT	30 mL
Buffer GWT2	30 mL
Proteinase K	1.25 mL
RNase-Free Water	10 mL
Spin Columns DM with Collection Tubes	50
RNase-Free Centrifuge Tubes (1.5 mL)	50

Storage

All components can be stably stored in a dry place at room temperature (15-30°C).

Required Reagents and Equipment

- Thermomixer

Instructions

Preparations

- Read this instruction manual carefully before use.
- For long-term storage, keep Proteinase K at -20 °C.

- Check Buffer RLC for crystals or precipitates before use. If present, dissolve completely by water bath incubation at 56 °C.
- Tissue sample pretreatment: Place 20 mg tissue sample into a self-provided 1.5 mL centrifuge tube, add 500 µL Buffer RLC, and homogenize with a tissue homogenizer. Centrifuge at 12,000 rpm (~13,400×g) for 1 min, and take 200 µL of the supernatant as the sample.

Protocol

1. Take a self-provided 1.5 mL centrifuge tube, add 500 µL Buffer RLC, 200 µL sample, and 20 µL Proteinase K. Vortex for 5 seconds, then incubate at room temperature with shaking at 1,200 rpm on a ThermoMixer for 10 min.
For wet swab samples, take 200 µL for extraction after thorough vortexing. For dry swab samples, soak in 400 µL normal saline, vortex thoroughly and let stand for 5 min. Centrifuge at 12,000 rpm for 1 min, then take 200 µL supernatant for extraction.
2. Briefly centrifuge the tube. Transfer the solution from Step 1 into a Spin Column DM assembled in a collection tube. Centrifuge at 12,000 rpm (~13,400×g) for 1 min, discard the waste liquid, and place the spin column back into the collection tube.
3. Add 500 µL Buffer PGWT to the spin column. Centrifuge at 12,000 rpm for 1 min, discard the waste liquid, and reassemble the column.
4. Add 500 µL Buffer GWT2 to the spin column. Centrifuge at 12,000 rpm for 1 min, discard the waste liquid, and reassemble the column.
5. Centrifuge at 12,000 rpm for 2 min and discard the waste liquid. Place the spin column at room temperature for 2 min to dry.
6. Place the spin column into a new RNase-Free Centrifuge Tube. Pipette 40–100 µL RNase-Free Water vertically onto the center of the column membrane without contact. Let stand at room temperature for 2 min, then centrifuge at 12,000 rpm for 1 min to collect the nucleic acid solution. Store at -80 °C for long-term preservation.