

Ver. 25071

**Viral RNA Kit**

(Spin column)

Cat No. ODP314

**Kit Contents**

Contents	50 Preps
Buffer LB1	10mL
Buffer PW	15mL
RNase-free Water	10mL
Acryl Carrier	500µL
RNase-free Spin column CR3 with Collection tubes	50

**Storage**

Viral RNA Kit could be stored dry at room temperature (15-25°C) and is stable for 12 months without any diminution in performance and quality. For long term storage, the kit could be stored at 2-8°C. If precipitation occurs under 2-8°C, please place the kit under room temperature.

**Note:** Acryl Carrier should be stored at -20°C.

**Introduction**

Viral RNA Kit is based on silica membrane technology and special buffer system for RNA extraction from plasma, serum and cell-free body fluids. The spin column, made of new type silica membrane can bind RNA optimally on given salt and pH conditions. Simple centrifugation completely removes contaminants and enzyme inhibitors such as RNase, proteins and divalent cations. Extracted RNA is ready to use in downstream applications like restriction analysis, PCR analysis and Southern blotting.

**Precautions**

1. Repeated freezing and thawing of stored samples may lead to lower RNA yield.
2. Equilibrate the samples to room temperature.
3. Buffer LB1 uses Guanidine salt. Do not discard solution in bleach such as sodium hypochlorite as Guanidine salts produces hazardous gas when in contact with bleach.

**Materials required but not provided in the kit**

1.5mL micro centrifuge tubes, Ethanol (96-100%)

## Protocol

**Ensure that Buffer PW have been added with appropriate volume of ethanol (96-100%) as indicated on the bottle and mix thoroughly.**

1. Briefly mix the sample.
2. Take 200 $\mu$ L sample in 1.5mL microcentrifuge tube.
3. Add 200 $\mu$ L of Buffer LB1 to it.
4. Add 10 $\mu$ L of Acryl Carrier and mix the contents by vortexing for 10 seconds. Incubate at room temperature for 10 minutes.
5. Add 250 $\mu$ L of Ethanol (96-100%) to the sample (Precipitates may be visible after addition of ethanol), close the cap and mix thoroughly by pulse-vortex for 15 seconds. Incubate the lysate with the ethanol for 5 minutes at room temperature (15-25°C).

**Note: Cool ethanol (96-100%) on ice before use if the room temperature is more than 25°C.**

6. Pipette the mixture into the spin column CR3 (in a 2mL collection tube) and centrifuge at 10,000 rpm for 1 minute. Discard the flow-through and place the spin column CR3 back to the collection tube.
7. Add 700 $\mu$ L Buffer PW to spin column CR3 and centrifuge at 10,000 rpm for 1 minute. Discard the flow-through and place the spin column back to the collection tube.
8. Re-centrifuge the spin column CR3 placed in collection tube at 10,000 rpm for 2 minutes and discard the flow-through.
9. Place the spin column CR3 to a new 1.5mL micro-centrifuge tube and pipette 50 $\mu$ L RNase-free Water directly to the center of membrane. Incubate at room temperature (15-25°C) for 3 minutes. Then centrifuge at 10,000 rpm for 1 minute.
10. The elute can be used for further downstream processes. For longer shelf life, store at -20°C.