

# EasyPure® Viral DNA/RNA Kit

Cat.No. ER201

**Storage:** At room temperature (15°C-25°C) in a dry place for one year.

## Description

EasyPure® Viral DNA/RNA Kit utilizes a unique lysis buffer to lyse virus and release DNA / RNA. The released DNA / RNA is effectively purified after specifically binding to a silica-based spin column. It is suitable for isolating viral DNA/RNA from up to 200 µl of plasma, serum, whole blood, tissue homogenate, cell-free body fluid, nasopharyngeal or oropharyngeal aspirate/wash, bronchoalveolar lavage fluid (BALF), tracheal aspirate, sputum, nasopharyngeal or oropharyngeal swab and animal cell culture supernatant. The isolated DNA/RNA with high purity can be applied in PCR, RT-PCR, qPCR, qRT-PCR, etc.

## Kit Contents

| Component                              | ER201-01 (50 rxns) | ER201-02 (200 rxns) |
|----------------------------------------|--------------------|---------------------|
| Binding Buffer 5 (BB5)                 | 15 ml              | 60 ml               |
| Wash Buffer 5 (WB5)                    | 12 ml              | 2×24 ml             |
| Proteinase K (20 mg/ml)                | 1 ml               | 4×1 ml              |
| RNase-free Water                       | 10 ml              | 20 ml               |
| RNase-free Tube (1.5 ml)               | 50 each            | 200 each            |
| RNA Spin Columns with Collection Tubes | 50 each            | 200 each            |

## Sample requirement

- Store at 4°C for no more than 72 hours; at -70°C for long term storage.
- Avoid repeated freezing and thawing.
- Swab samples should only be collected with synthetic tip swabs (such as polyester or Dacron®) with aluminum or plastic shafts.

## Procedure

Before starting, add different volumes of anhydrous ethanol to WB5.

| Component           | ER201-01 (50 rxns) | ER201-02 (200 rxns) |
|---------------------|--------------------|---------------------|
| Wash Buffer 5 (WB5) | 48 ml              | 2×96 ml             |

### 1. Sample processing

#### • Liquid samples

- Add 20 µl Proteinase K to a sterile 1.5 ml microcentrifuge tube. Add 200 µl BB5 and mix by vortexing for 15 seconds.  
For multiple samples, mix Proteinase K and BB5 by the above ratio and separate the mixture into aliquots of 220 µl.
- Add 200 µl of sample to the microcentrifuge tube. Mix by vortexing for 15 seconds.  
Note: If the sample volume is less than 200 µl, please add PBS or 0.9% NaCl to bring the total volume to 200 µl.
- Incubate at 56°C for 15 minutes.
- Add 250 µl of anhydrous ethanol (floculation may appear at this stage), mix by vortexing for 15 seconds, and incubate at room temperature for 5 minutes.

#### • Solid samples (e.g., swabs)

- Place a swab and the entire storage buffer into a sterile 1.5 ml microcentrifuge tube and cut off the swab tip.
- Add 300 µl BB5 and 20 µl Proteinase K. Mix by vortexing.
- Incubate at 56°C for 20 minutes and vortex 3-5 times during the incubation.
- Remove the swab tip, centrifuge briefly, and add 300 µl of anhydrous ethanol (floculation may appear at this stage).  
Mix by vortexing for 15 seconds, and incubate at room temperature for 5 minutes.



- For viscous liquids such as sputum, refer to "Solid samples"

2. Transfer the entire contents to a spin column, centrifuge at  $12,000\times g$  for 1 minute, and discard the flow through.  
If the total volume is  $> 650\ \mu\text{l}$ , load twice.
3. Add  $500\ \mu\text{l}$  of WB5. Centrifuge at  $12,000\times g$  for 1 minute and discard the flow through.
4. Repeat step 3 once.
5. Centrifuge at  $12000\times g$  for 1 minute to remove the residual ethanol completely.
6. Place the spin column into a new RNase-free 1.5 ml microcentrifuge tube. Add  $20\text{--}50\ \mu\text{l}$  of RNase-free Water to the center of the column, and incubate at room temperature for 1 minute.
7. Centrifuge at  $12000\times g$  for 1 minute to elute DNA/RNA.
8. Store the eluted DNA (at  $-20^{\circ}\text{C}$ ) or RNA (at  $-70^{\circ}\text{C}$ ).

#### Notes

- All the centrifugation steps are carried out at room temperature.
- Please check to make sure that anhydrous ethanol has been added into WB5 before use.

FOR RESEARCH USE ONLY

