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Viral DNA/RNA Mini Purification Kit

1 Contents

Cat. No.	Storage/Transportation	Components	HY-K1082-5T	HY-K1082-50T
HY-K1082	Storage: room temperature Transportation: room temperature	Lysis Buffer	2 mL	10 mL
		Wash Buffer	3.6 mL (add 8.4 mL of 100% ethanol prior to use)	24 mL (add 56 mL of 100% ethanol prior to use)
		Elution Buffer	2 mL	10 mL
		Spin Columns with Collection Tubes (2 mL)	5 Tubes	50 Tubes
HY-K1082F	Storage: -20°C Transportation: ice pack	Acryl Carrier	5 μL	50 μL
		Proteinase K (solid)	4 mg	20 mg
		Proteinase K Storage Buffer	200 μL	1 mL

2 Introduction

MCE Viral DNA/RNA Mini Purification Kit allows rapid and efficient purification of viral DNA/RNA. Based on the selective binding of DNA/RNA to the silica-based membrane, this kit can efficiently isolate viral DNA/RNA from plasma samples, serum, whole blood, tissue homogenates, cell-free body fluids, nasopharyngeal or oropharyngeal aspirates or lotion, alveolar lavage fluid, tracheal aspirates and sputum, nasopharyngeal or oropharyngeal swabs, supernatant of cultured animal cells. Viral DNA/RNA purified with this kit can be used for PCR, RT-PCR, qPCR, and qRT-PCR.

3 General Protocol

Add the indicated volume of 100% ethanol to Wash Buffer prior to use.

Dissolve the Proteinase K (solid) in Proteinase K Storage Buffer prior to use. The prepared Proteinase K Buffer should be stored at -20°C.

1. Sample preparation

Liquid sample

Set a water or heat block at 56°C.

a). Add 200 μL Lysis Buffer, 20 μL Proteinase K Buffer and 1 μL Acryl Carrier to a EP tube.

b). Add 200 μL sample, mix well by briefly vortexing for 10-15 seconds.

Note: If the sample is <200 μL, adjust final volume of the sample to 200 μL using PBS or 0.9% NaCl.

c). Incubate at 56°C for 20 minutes.

Solid samples (Such as a swab)

Set a water or heat block at 56°C.

a). Place the single swab head and entire preservation solution into a new EP tube and cut off the excess swab head rod.

b). Add 200 μL Lysis Buffer, 20 μL Proteinase K Buffer and 1 μL Acryl Carrier to the EP tube. Mix well by briefly vortexing for 10-15 seconds.

c). Incubate at 56°C for 20 minutes with occasional reversing (three or five times).

For Viscous Fluids such as sputum, please refer to the protocol for "Solid Samples".

2. Centrifuge for 5 minutes at 12,000 rpm, and transfer the supernatant to a new EP tube.

3. Add 200 µL ethanol. Invert the mix and incubate for 3 minutes.

4. Transfer the solution to the Spin Column with Collection Tube, centrifuge for 30 seconds at 12,000 rpm. Discard the filterate and put the spin column back into the collection tube.

5. Add 600 µL Wash Buffer prepared with ethanol. Centrifuge for 30 seconds at 12,000 rpm. Discard the filterate and put the spin column back into the collection tube.

6. Repeat Step 5.

7. Centrifuge for 2 minutes at 12,000 rpm, discard the filterate and the collection tube. Open the spin column and place it at room temperature for 3-5 minutes to completely dry the Wash Buffer off the DNA/RNA samples.

Note: Residual ethanol may affect the yield and subsequent experiments.

8. Transfer the spin column to a new EP tube, add 40~200 µL Elution Buffer or RNA-free Water to the center of the membrane. Place it at room temperature for 2 minutes, centrifuge for 1 minute at 12,000 rpm.

9. Store the purified DNA at 4°C for immediate use or -20°C for long-term storage, store the RNA at -70°C.

Note: If desired, perform a second elution to increase the yield.

4 Storage

Acryl Carrier, Proteinase K (solid) and Proteinase K Storage Buffer, -20°C.

Other components of the kit, room temperature.

And is stabled for one year.

5 Precautions

1. Avoid repeated freezing and thawing of the samples.
2. Perform all centrifugation steps at room temperature.
3. Add ethanol to Wash Buffer prior to use.
4. Add Elution Buffer to the center of the membrane for eluting the DNA fully.
5. This product is for R&D use only, not for drug, household, or other uses.
6. For your safety and health, please wear a lab coat and disposable gloves to operate.