FavorPrep™

# 96-Well Viral DNA/ RNA Extraction Kit

**Cat. No. FAVRE 001 (4 Plates)**

**FAVRE 002 (10 Plates)**

Store at room temperature (15 - 25°C )

***For research use only***

# Introduction

FavorPrep 96-Well Viral DNA/ RNA Kit is designed for high-throughput extraction of viral DNA/ RNA from cell free sample such as serum, plasma, body fluids and the supernatant of cell cultures. The method use a specialized chaotropic salt to lyse viruses, then DNA/ RNA in chaotropic salt is bonded to glass fiber matrix when the lysis mixture passing through the binding plate. After washing off the contaminants, the purified DNA/ RNA is eluted by RNase free water. The entire procedure can be completed in one hour without phenol/ chloroform extraction and alcohol precipitation. In the procedure, DNA/ RNA binding and washing steps could be do on vacuum manifold or by centrifuge. And the eluted DNA RNA is ready to use in different application.

# Quality Control

The quality of 96-Well Viral DNA/ RNA Kit is tested on a lot-to-lot basis. The purified RNA is checked by agarose gel analysis and quantified with spectrophotometer.

# Caution

VNE Buffer and Wash 1 Buffer contain irritant agent. Wear gloves and lab coat when handling these buffer.

# Kit Contents

| Name | FATRE001<br>4 plates | FATRE002<br>10 plates |
|---|---|---|
| VNE Buffer | 200 ml | 500 ml |
| AD Buffer (concentrated)* | 26 ml | 26ml X2 |
| Wash 1 Buffer | 130 ml | 130 ml x 3 |
| Wash 2 Buffer (concentrated)* | 50 ml | 50 ml x 3 |
| RNase-free dd$H_2O$ | 30ml | 60 ml |
| 96-Well viral RNA/ DNA binding plate | 4 pcs | 10 pcs |
| 96-Well 0.35 µl collection plate | 4 pcs | 10 pcs |
| Adhesive film | 8 pcs | 20 pcs |

*Add 200 ml of ethanol (96-100%) to AD Buffer and Wash 2 Buffer when first use.

# References

(1) Vogelstein, B., and Gillespie, D. (1979) Proc. Natl. Acad. Sci. USA 76, 615.

# Centrifuge Protocol

Step 1

***lysis***

- Transfer **200 μl of sample** to each well of the 96-Well 2 ml plate**.** If prepared sample is less than 200 μl, adjust sample volume to 200 μl with PBS (not provided)
- Add **400 μl of VNE Buffer** to each well of the 96-Well 2 ml plate**.**
- Seal the plate with Adhesive Film and mix by vortex. And Incubate at room temperature for 10 minutes.

Step2

***Binding***

- Add **450 μl of AD Buffer (ethanol added)** to each well of the 96-Well 2 ml plate**.** Mix the sample completely by shaking (seal with adhesive film) or pipetting.
- Place a **96-Well Viral DNA/ RNA Binding Plate** on top of another 96-Well 2 ml plate (not provided).
- Transfer the sample mixture to each well of the **96-Well Viral DNA/ RNA Binding Plate**.
- Place the combined plates in a rotor bucket and centrifuge at 3,500 rpm (1,000 ~1,500 x g) for 5 minutes.
- Discard the flow-through and place the **96-Well RNA Binding Plate** back to top of the 96-Well 2 ml plate.

Step 3

***Wash***

- Add **300 μl of Wash 1 Buffer** to each well of the **96-Well RNA Binding Plate**.
- Place the combined plates in a rotor bucket and centrifuge at 3,500 rpm (1,000 ~1,500 x g) for 5 minutes.
- Add **600 μl of Wash 2 Buffer (ethanol added)** to each well of the **96-Well Viral DNA/ RNA Binding Plate**.
- Place the combined plates in a rotor bucket and centrifuge at 3,500 rpm (1,000 ~1,500 x g) for 5 minutes.
- Discard the flow-through and place the **96-Well Viral DNA/ RNA Binding Plate** back to top of the 96-Well 2 ml plate.
- Place the combined plates in a rotor bucket and centrifuge at 3,500 rpm (1,000 ~1,500 x g) for an additional 10 minutes to remove residual ethanol.

Step 4

***Elution***

- Transfer the **96-Well Viral DNA/ RNA Binding Plate** on a clean 96-Well 350µl collection plate. (provided)
- Add **50 µl** RNase-free $ddH_2O$ in the center of each well of DNA/ RNA Binding Plate.
- Stand for 3 minutes until RNase-free $ddH_2O$ absorbed by the matrix. Centrifuge for 5 min at 3,500 rpm to elute purified RNA into the 96-Well 350µl collection plate. Seal with Adhesive Film and store 4°C or -20°C

# Vacuum/ Centrifuge Protocol

Step 1

***lysis***

- Transfer **200 µl of sample** to each well of the 96-Well 2 ml plate**.** If prepared sample is less than 200 µl, adjust sample volume to 200 µl with PBS (not provided)
- Add **400 µl of VNE Buffer** to each well of the 96-Well 2 ml plate**.**
- Seal the plate with Adhesive Film and mix by vortex. And Incubate at room temperature for 10 minutes.

Step 2

***Binding***

- Add **450 µl of AD Buffer (ethanol added)** to each well of the 96-Well 2 ml plate**.** Mix the sample completely by shaking (seal with adhesive film) or pipetting.
- Place a **96-Well Viral DNA/ RNA Binding Plate** on top of the vacuum manifold.

  **(optional)** Place a 96-Well 2 ml plate inside to collect waste.
- Transfer the sample mixture to each well of the **96-Well Viral DNA/ RNA Binding Plate**.
- Apply vacuum at 10 inches Hg for 5 minutes until wells have emptied.

Step 3

***Wash***

- Add **300 μl of Wash 1 Buffer** to each well of the **96-Well Viral DNA/ RNA Binding Plate**.
- Apply vacuum at 10 inches Hg for 5 minutes until wells have emptied.
- Add **600 μl of Wash 2 Buffer (ethanol added)** to each well of the **96-Well Viral DNA/ RNA Binding Plate**.
- Apply vacuum at 10 inches Hg for 5 minutes until wells have emptied.
- Apply vacuum at 10 inches Hg for an additional 10 minutes (or incubate at 60 ˚C for 10 minutes) to remove residual ethanol.

Step 4

***Elution***

- Transfer the **96-Well Viral DNA/ RNA Binding Plate** on a clean 96-Well 350μl collection plate. (provided)
- Add **50 μl of** RNase-free $ddH_2O$ in the center of each well of RNA Binding Plate.
- Stand for 3 minutes until RNase-free $ddH_2O$ absorbed by the matrix.
- Place the combined plates in a rotor bucket and centrifuge at 3,500 rpm for 5 min to elute purified DNA/ RNA into the 96-Well 350μl collection plate. Seal with Adhesive Film and store 4°C or -20°C.