FavorPrep™ Viral Nucleic Acid Extraction Kit I

User Manual

Cat. No.: FAVNK 001 (50 Preps)
FAVNK 001-1 (100 Preps)
FAVNK 001-2 (300 Preps)

For Research Use Only

v.0912

Introduction

FavorPrep™ Viral Nucleic Acid Extraction Mini Kit I is desigened for extraction of Viral DNA or RNA from cell free fluides such as serum, plasma, body fluid and cell cultured supernatant. This method first lyses virus by using a chaotropic salt, then binds nucleic acid to silica-based membranes. After washing with ethanol-contained wash buffer, contaminants and enzyme inhibitors will be removed completely. It takes only 20 min for an entire procedure, the purified nucleic acid is ready for RT-PCR and PCR .

Kit Contents

Cat. No. / preps	FAVNK001 (50 preps)	FAVNK001-1 (100 preps)	FAVNK001-2 (300 preps)
VNE Buffer	35 ml	70 ml	200 ml
Wash Buffer 1 * (concentrated)	22 ml	44 ml	132 ml
Wash Buffer 2+(concentrated)	20 ml	20 ml x 2	50 ml x 2
RNase-free Water	6 ml	12 ml	20 ml
Carrier RNA	0.4 mg	0.8 mg	2.2 mg
VNE Column	50 pcs	100 pcs	300 pcs
Collection Tube	100 pcs	200 pcs	600 pcs
Elution Tube	50 pcs	100 pcs	300 pcs
User Manual	1	1	1

*Add 8 ml / 16 ml / 48 ml of ethanol (96~100%) to Wash Buffer 1 when first open.

+ For FAVNK001 / FAVNK001-1, add 80 ml of ethanol (96~100%) to each Wash Buffer 2 when first open. For FAVNK001-2, add 200 ml of ethanol (96~100%) to each Wash Buffer 2 when first open.

Specification

Sample: 150 µl of plasma, serum, body fluid and cell cultured supernatant.

Handing time: 20 min.

Elution Volume: 50 µl.

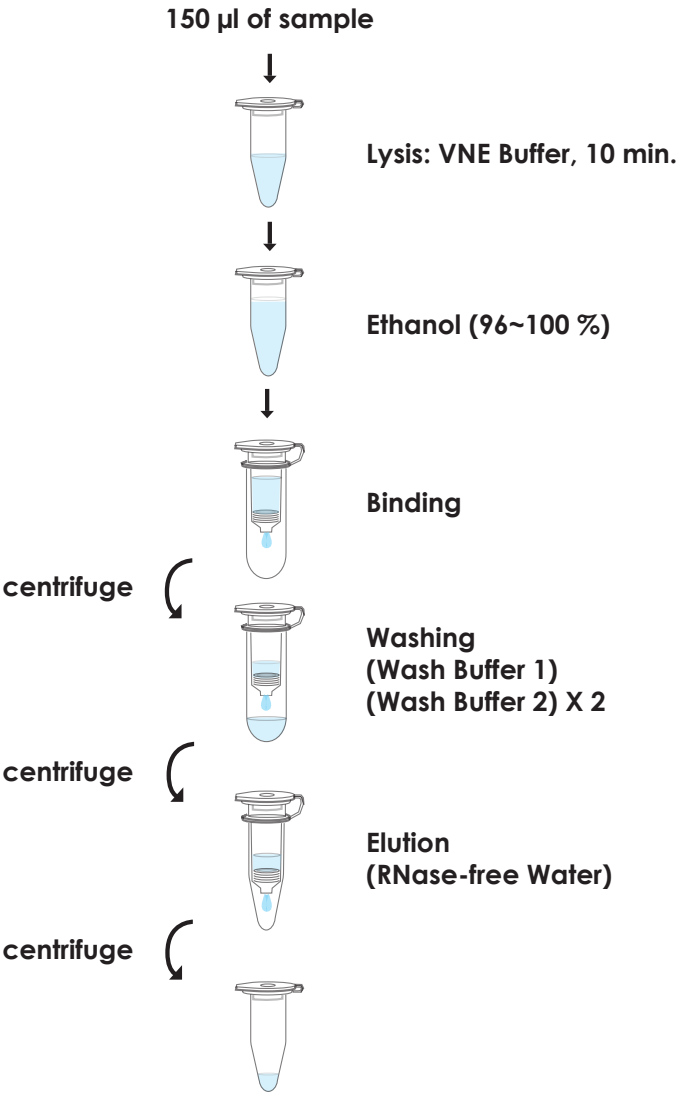
Important Notes

1. **Make sure everything is RNase-free when handling this system.**

2. **Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.**

3. **Add 1 ml of VNE Buffer to the tube of lyophilized Carrier RNA, mix well by vortexing and transfer the mixture to the VNE Buffer when first open. Store the Carrier RNA added VNE Buffer at 4 °C.**

Brief Procedure



General Protocol:

Please Read Important Notes Before Starting Following Steps.

1. **Transfer 150 µl of sample (serum, plasma, body fluids or cell cultured supernatant) into a microcentrifuge tube (not provided).**
   --If the sample volume is more than 150 µl, separate it into multiple tubes.

2. **Add 570 µl of VNE Buffer (Carrier RNA added) to the sample, mix well by vortexing, and incubate for 10 minutes at room temperature.**
   --Make sure that Carrier RNA has been added to the VNE Buffer when first use.

3. **Add 570 µl of ethanol (96~100%) to the sample mixture, mix well by plus-vortexing.**

4. **Combine a VNE column with a Collection Tube (provided).**
   Transfer up to 700 µl of sample mixture (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through.
   Combine the VNE Column with the used Collection Tube.

5. **Transfer the rest of sample mixture (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 min.**
   Discard the flow-through and the Collection Tube.
   Combine the VNE Column with a new Collection Tube (provided).

6. **Add 500 µl of Wash Buffer 1 (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through.**
   Combine the VNE Column with the used Collection Tube.
   --Make sure that ethanol (96~100%) has been added into Wash Buffer 1 when first open.

7. **Add 750 µl of Wash Buffer 2 (ethanol added) to VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through.**
   Combine the VNE Column with the used Collection Tube.
   --Make sure that ethanol (96~100%) has been added into Wash Buffer 2 when first open.

8. **Repeat step 7. Add 750 µl of Wash Buffer 2 (ethanol added) to VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through. Combine the VNE Column with the used Collection Tube.**

9. **Centrifuge at full speed 13,000 X g for an additional 3 min to dry the VNE column.**
   Discard the flow-through and the Collection Tube.
   --Important step! This step will avoid the residual liquid to inhibit the subsequent enzymatic reactions.

10. **Combine the VNE Column with a Elution Tube (provided).**
    Add 50 µl of RNase-free Water to the membrane center of the VNE Column.
    Stand VNE Column for 2 min.
    --Important step! For effective elution, make sure that the RNase-free Water is dispensed onto the membrane center and is absorbed completely.

11. **Centrifuge for 2 min to elute the nucleic acid.**

12. **Store nucleic acid at -70 °C.**

FavorPrep™
Viral Nucleic Acid Extraction Kit II

User Manual

Cat. No.: FAVNK 002 (50 Preps)
FAVNK 002-1 (100 Preps)
FAVNK 002-2 (300 Preps)

For Research Use Only

v.1304

Introduction

The Viral Nucleic Acid Extraction Kit isdesigned for purification of total RNA or DNA from cell-free samples, such as plasma, serum, urine, cell-culture, supernatant, or cell-free body fluid . The method utilises detergents and a chaotropic salt to lyse virus, then the nucleic acid in chaotropic salt is bound to the glass fiver matrix of column. After washing off the contaminants, the purfied nucleic acid is eluted by RNase-free water. The detection limit for certain viruses depends on the sensitivity of individual PCR or RT-PCR assay. This protocol is recommended for parallel purification of viral RNA including HCV, HIV, and HTLV and viral DNA including HBV and CMV. Extracted DNA can be used directly for PCR amplification, RNA for RT-PCR amplification. The entire procedure can be completed in 20 minutes. This kit specially is for low viral load specimen.

Kit Contents

Cat. No. / preps	FAVNK002 (50 preps)	FAVNK002-1 (100 preps)	FAVNK002-2 (300 preps)
AD Buffer+ (concentrated)	4 ml	8 ml	24 ml
VNE Buffer	30 ml	60 ml	180 ml
Wash Buffer 1* (concentrated)	22 ml	44 ml	132 ml
Wash Buffer 2** (concentrated)	20 ml	20 ml X 2	50ml x 2
RNase-free Water	6 ml	12 ml	30 ml
VNE Column	50 pcs	100 pcs	300 pcs
Collection Tube	100 pcs	200 pcs	600 pcs
Elution Tube	50 pcs	100 pcs	300 pcs
User Manual	1	1	1

+Add 30 ml/ 60 ml/ 180 ml of ethanol (96~100%) to AD Buffer when first open.

*Add 8 ml/ 16ml/ 48ml of ethanol (96~100%) to Wash Buffer 1 when first open.

**Add 80 ml/ 200 ml of ethanol (96~100%) to Wash Buffer 2 when first open.

Specification

Sample Source: Serum, Plasma, Cell-Culture Supernatants, Cell-Free Body Fluids

Sample Size: 200 µl

Operation time: < 20 min

Important Notes

1. **Make sure everything is RNase-free when handling this system.**

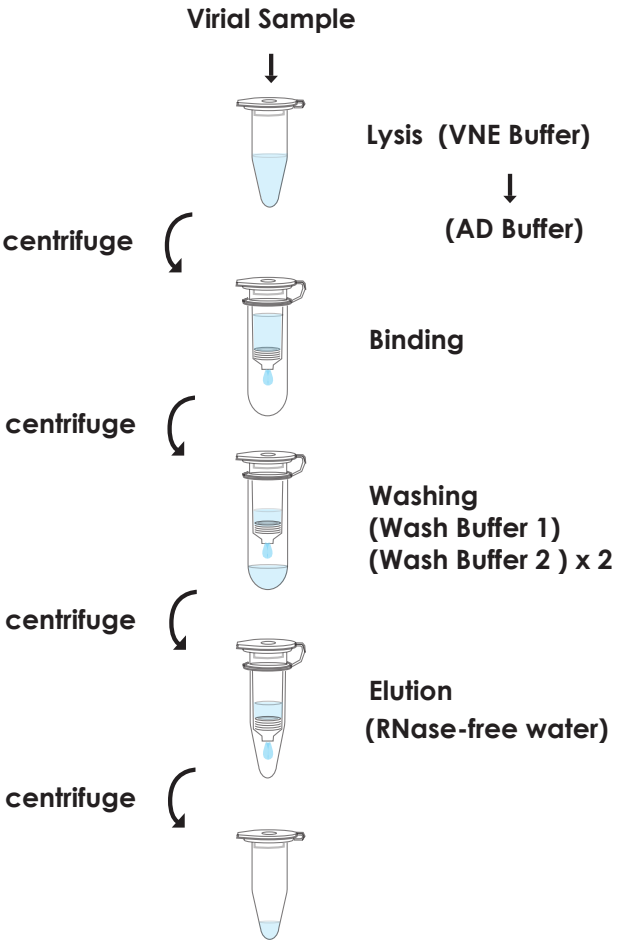
2. **Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.**

3. **For FAVNK002, add 30 ml of ethanol (96-100%) to AD Buffer when first open. For FAVNK002-1, add 60 ml of ethanol (96-100%) to AD Buffer when first open.**

4. **For FAVNK002, add 8 ml of ethanol (96-100%) to Wash Buffer 1 when first open. For FAVNK002-1, add 16 ml ethanol (96-100%) to Wash Buffer 1 when first open.**

4. **Add 80 ml of ethanol (96-100%) to each Wash Buffer 2 when first open.**

Brief Procedure



General Protocol:

Please Read Important Notes Before Starting Following Steps.

1. **Transfer 200 µl of sample (serum, plasma, body fluids and the supernatant of viral infected cell culture) into a microcentrifuge tube (not provided).**
   --If prepared sample is less than 200 µl , adjust sample volume to 200µl with PBS (not provided).

2. **Add 500 µl of VNE Buffer to the sample, mix well by vortexing. Incubate the sample mixture at room temperature for 10 minutes.**

3. **Add 550 µl of AD Buffer (ethanol added) to the sample mixture and mix well immediately by plus-vortexing.**
   --Make sure that ethanol has been added into AD Buffer when first open.

4. **Combine a VNE column with a 2 ml Collection tube.**

5. **Transfer up to 750 µl of sample mixture to the VNE column.**
   Centrifuge at 8,000 x g for 1 minute then discard the flow-through.
   Combine the VNE Column with the used Collection Tube.

6. **Transfer the rest of sample mixture to the VNE Column.**
   Centrifuge at 8,000 x g for 1 min then discard the flow-through and the Collection Tube.
   Combine the VNE Column with a new Collection Tube (provided).

7. **Add 500 µl of Wash Buffer 1 (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through.**
   Combine the VNE Column with the used Collection Tube.
   --Make sure that ethanol (96~100%) has been added into Wash Buffer 1 when first open.

8. **Add 750 µl of Wash Buffer 2 (ethanol added) to VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through.**
   Combine the VNE Column with the used Collection Tube.
   --Make sure that ethanol (96~100%) has been added into Wash Buffer 2 when first open.

9. Repeat step 7. Add 750 µl of Wash Buffer 2 (ethanol added) to VNE Column, centrifuge at 8,000 x g for 1 min then discard the flow-through. Combine the VNE Column with the used Collection Tube.

10. Centrifuge at full speed 13,000 X g for an additional 3 min to dry the VNE column.
Discard the flow-through and the Collection Tube.
--Important step! This step will avoid the residual liquid to inhibit the subsequent enzymatic reactions.

11. Combine the VNE Column with a Elution Tube (provided).
Add 50 µl of RNase-free Water onto the membrane center of the VNE Column. Stand VNE Column for 2 min.
--Important step! For effective elution, make sure that the RNase-free Water is dispensed onto the membrane center and is absorbed completely.

12. Centrifuge for 2 min to elute the nucleic acid.

13. Store nucleic acid at -70 °C.