FavorPrep™ Viral Nucleic Acid Extraction Kit II

- For isolation of viral nucleic acid from cell-free fluid such as, serum, plasma, body fluid and cell cultured supernatant

Cat.No. : FAVNK 000-2, 4 Preps
FAVNK 002, 50 Preps
FAVNK 002-1, 100 Preps
FAVNK 002-2, 300 Preps

(For Research Use Only)

Kit Contents:

	FAVNK 000-2 (4 preps_sample)	FAVNK 002 (50 preps)	FAVNK 002-1 (100 preps)	FAVNK 002-2 (300 preps)
AD Buffer * (concentrate)	0.4 ml	4 ml	8 ml	24 ml
VNE Buffer	1.8 ml x 2	30 ml	60 ml	180 ml
Wash Buffer 1 * (concentrate)	0.9 ml x 2	22 ml	44 ml	132 ml
Wash Buffer 2 * (concentrate)	1.5 ml	20 ml	20 ml x 2	50 ml x 2
RNase-free Water	0.5 ml	6 ml	12 ml	30 ml
VNE Column	4 pcs	50 pcs	100 pcs	300 pcs
Collection Tube	8 pcs	100 pcs	200 pcs	600 pcs
Elution Tube	4 pcs	50 pcs	100 pcs	300 pcs
User Manual	1	1	1	1

* Preparation of AD Buffer, Wash Buffer 1 and Wash Buffer 2 for first use:

Cat. No:	FAVNK000-2 (4 preps)	FAVNK002 (50 preps)	FAVNK002-1 (100 preps)	FAVNK 002-2 (300 preps)
Ethanol volume for AD Buffer	3 ml	30 ml	60 ml	180 ml
Ethanol volume for Wash Buffer 1	0.33 ml	8 ml	16 ml	48 ml
Ethanol volume for Wash Buffer 2	6 ml	80 ml	80 ml	200 ml

Specification:

Principle: spin column (silica membrane)

Sample: 200 µl cell-free fluid such as serum, plasma, body fluid and cell cultured supernatant

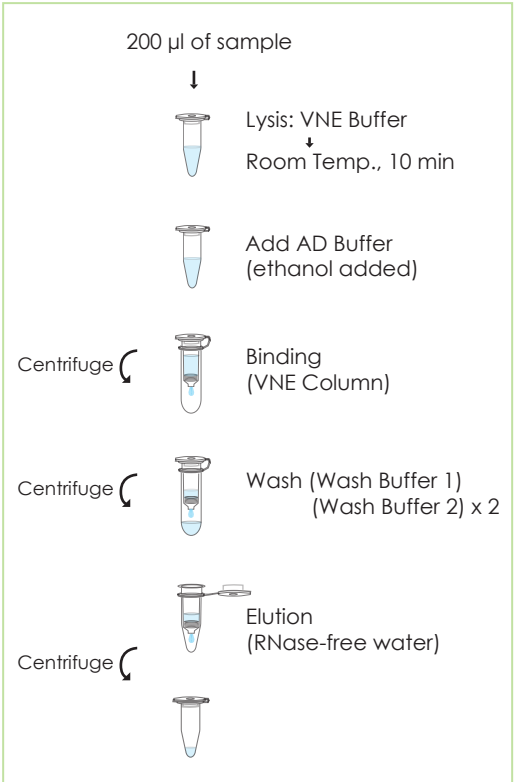
Length of recovery nucleic acid: >200 bp

Binding capacity: 60 µg/column

Recovery rate: 70~90%

Elution volume: 30~60 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. Add required ethanol (96~100%) to AD Buffer, Wash Buffer 1 and Wash Buffer 2 before use.
4. Preheat RNase-free water to 70˚C for elution step. (step:11)

General Protocol:

Please Read Important Notes Before Starting Following Steps.

HINT: Preheat RNase-free water 70°C for step 11 (elution step).

1. **Transfer 200 µl of sample (serum, plasma, body fluids or cell cultured supernatant) into a microcentrifuge tube (not provided).**
   -- If prepared sample is less than 200 µl , adjust sample volume to 200 µl with PBS (not provided).
2. **Add 500 µl of VNE Buffer the sample, mix well by vortexing, and incubate for 10 minutes at room temperature.**
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. **Place a VNE column to a Collection Tube (provided).**
5. **Transfer up to 750 µl of sample mixture (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 minute then discard the flow-through. Place the VNE Column back to the Collection Tube.**
6. **Transfer the rest of sample mixture (ethanol added) to the VNE Column, centrifuge at 8,000 x g for 1 minute. Discard the flow-through and the Collection Tube. Place the VNE Column to 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 minute then discard the flow-through. Place the VNE Column back to 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 the VNE Column, centrifuge at 8,000 x g for 1 minute then discard the flow-through. Place the VNE Column back to the Collection Tube.**
   --Make sure that ethanol (96~100%) has been added into Wash Buffer 2 when first open.
9. **Repeat step 8.**
10. **Centrifuge at full speed (~18,000 x g) for an additional 3 minutes 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. **Place the VNE Column to an Elution Tube (provided). Add 30~60 µl of preheated RNase-free Water to the membrane center of the VNE Column. Stand VNE Column for 2 minutes.**
    --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 minutes to elute the nucleic acid.**
13. **Store nucleic acid at -70°C.**

Troubleshooting

Problems	Possible reasons	Solutions
Low nucleic acid yield		
	Incorrect preparation of Wash Buffer 1 or Wash Buffer 2	
	AD Buffer, Wash Buffer 1 and Wash Buffer 2 is not mixed with ethanol before use	Make sure that the correct volumes of ethanol (96-100 %) is added into AD Buffer, Wash Buffer 1 and Wash Buffer 2 when first open. Repeat the extraction procedure with a new sample.
	The volume or the percentage of ethanol is not correct before adding into AD Buffer, Wash Buffer 1 and Wash Buffer 2	
	Incorrect elution conditions	
	RNase-free water not completely absorbed by column membrane	After RNase-free water is added, stand the VNE Column for 2 min before centrifugation.
Column is clogged		
	Sample is too viscous	Reduce the sample volume.
Degradation of elutated DNA		
	Sample is old	Always use fresh or well-stored sample viral nuceic acid extraction.