VAMNE Virus DNA/RNA Extraction Kit 3.0 (96 Prepackaged)

RM502

Version 23.1

Product Description

The kit can quickly extract high-purity viral nucleic acids (DNA/RNA) from various liquid samples such as blood, serum, plasma, and swab eluate, enabling high-throughput processing of parallel samples. The kit uses unique embedded superparamagnetic silicon-based magnetic beads. In a unique buffer system, nucleic acids instead of proteins and other impurities are adsorbed by hydrogen bonds and electrostatic binding. The magnetic beads that have adsorbed nucleic acids are washed to remove the remaining proteins and salts. When using low-salt buffer, nucleic acids are released from magnetic beads, so as to achieve the purpose of rapid separation and purification of nucleic acids. The entire operation process is simple, fast, safe and efficient, and the obtained nucleic acids can be directly used for downstream experiments such as reverse transcription, PCR, qPCR, RT-PCR, RT-qPCR, next-generation sequencing, biochip analysis, etc.

Components

Components	RM502-01 (1 × 96 T)
Lysis Plate	1
Beads Plate	1
Wash Plate 1	1
Wash Plate 2	2
Elution Plate	1

▲When using this kit, please wear laboratory coat, disposable latex gloves, disposable mask and use Nuclease-free consumables to prevent DNase and RNase contamination.

Storage

Store at 15 ~ 25°C and transport at room temperature.

Applications

Blood, serum, plasma, swab eluate, tissue homogenate and more.

Applicable Instruments

Full-automatic nucleic acids extraction instrument (Vazyme #VNP-96P) and other similar instruments (heating plates position: 1, 6).

Notes

For research use only. Not for use in diagnostic procedures.

1. The extracted product is DNA/RNA. Special attention should be paid to prevent the degradation of RNA by RNase during the operation. The utensils and samplers used should be dedicated. All the tubes and pipette tips should be sterilized and DNase/RNase-free. Operators should wear powder-free gloves and masks.
2. Please read the instruction manual carefully before use, and operate in strict accordance with the instruction manual. Sample processing must be carried out in an ultra-clean bench or a biological safety cabinet.
3. The automatic nucleic acid extraction system should be disinfected by UV for 30 min before and after use.
4. There may be traces of magnetic beads remaining in the eluent after the extraction, so avoid aspirating the magnetic beads. If magnetic beads are aspirated, it can be removed with a magnetic stand.
5. If there are no special instructions for different batches of reagents, please do not mix them, and ensure that the kits are used within the validity period.
6. Properly dispose of all samples and reagent, thoroughly wipe down and disinfect all work surfaces with 75% ethanol.

Experiment Process

1. Sample processing

1.1 For viruses in liquid samples such as blood, serum, and plasma: 300 µl of supernatant used for extraction.

1.2 For swab samples: Place swab samples into sampling tubes containing preservation solution, vortex for 1 min, and take 300 µl of supernatant for extraction.

1.3 For viruses in tissue homogenates, tissue soak solutions, and environmental samples: Stand samples for 5 - 10 min, and take 300 µl of supernatant for extraction.

2. Preparation of prepackaged reagent

Take out the prepackaged reagents from the kit, invert and mix several times to resuspend the magnetic beads. Gently shake the plate to make the reagents and magnetic beads sink to the bottom of the well. Please confirm the direction of the plate and be carefully tear off the aluminum foil sealing film.

▲ Avoid vibration when tearing off the the sealing foil to prevent liquid from spilling.

3. Operation of the automatic instrument

3.1 Add 300 µl of sample to Lysis Plate (The input volume of sample is compatible with 100 - 400 µl).

3.2 Place the 96-well plates into the nucleic acid extraction instrument, and the order from left to right is Lysis Plate, Beads Plate, Wash Plate 1, and Wash Plate 2, Wash Plate 2, Elution Plate, and put the magnetic rod sleeve into the Beads Plate.

3.3 Set the program as follows (or select the corresponding preset) for automated extraction:

Step	Plate Position	Name	Mixing Time (min)	Adsorption Time (sec)	Waiting Time (min)	Volume (µl)	Temperature (°C)	Mixing Speed	Mixing Position	Mixing Amplitude	Adsorption Speed	Adsorption Position
1	2	Movebeads	0.5	30	0	700	OFF	8	10	80	10	0
2	1	Lysis	2	30	0	950	65	10	10	80	10	0
3	3	Wash1	1	30	0	700	OFF	10	10	80	10	0
4	4	Wash2	1	30	0	700	OFF	10	10	80	10	0
5	5	Wash3	1	30	2	700	OFF	10	10	80	10	0
6	6	Elution	3	30	0	70	80	10	5	80	10	0
7	2	Movebeads	0.5	0	0	700	OFF	8	10	80	10	0
Other settings (in the Option menu): Heating settings (heating and action start at the same time); Adsorption settings (three-stage adsorption)												

3.4 At the end of the automated procedure, transfer the eluent in plate 6 (note the effective working plate position) to clean nuclease-free centrifuge tubes for direct use in downstream experiments or storage at -20°C.