Virus DNA/RNA Extraction Kit 2.0 (Prepackaged)

RM401

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 washing liquid, 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	RM401-01 (50 T)	RM401-02 (48 T)	RM401-03 (32 T)	RM401-04 (96 T)
Virus DNA/RNA Reagents 2.0 (Prepackaged For RM401)	50 × 1 T/strip	6 × 8 T/plate	2 × 16 T/plate	6 × 16 T/plate

▲ Before using the kit, please wear a lab overall, disposable latex gloves, a disposable mask and use Nuclease-free consumables to minimize the risk of DNase and RNase contamination.

Storage

Store at 15 ~ 25℃, and transport at room temperature.

Applications

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

Applicable Instruments

The test kit can be used with automatic nucleic acid extraction systems, including Vazyme VNP-32P and same type instrument (heating slots position: 1, 6, 7, 12).

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.

2.2 For swab samples: Place swab samples into sampling tubes containing preservation solution, vortex for 1 min, and take 300 µl 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 pre-packaged 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 carefully tear off sealing aluminum foil.

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

3. Operation of the automatic instrument

3.1 Add 300 µl of sample to wells in Columns 1 or 7 of the 96 deep well plate (pay attention to the effective working well position). The input volume of sample is compatible with 100 - 400 µl.

3.2 Put the 96-well deep well plate into the nucleic acids extractor. Put on the magnetic bar sleeves, and ensure them fully envelops the magnetic rods.

3.3 Set the program as follows for automatic extraction:

Step	Slot Position	Name	Mixing Time (min)	Absorption Time (sec)	Waiting Time (min)	Volume (µl)	Mixing Speed	Temperature (℃)	Mixing Position	Mixing Amplitude	Absorption Position	Absorption Speed
1	2	Moving magnetic bead	0.5	30	0	700	8	-	10%	80%	0%	10
2	1	Lysis	4	30	0	950	10	65	10%	80%	0%	10
3	3	Washing1	0.5	30	0	700	4	-	10%	80%	0%	10
4	4	Washing2	0.5	30	0	700	4	-	10%	80%	0%	10
5	5	Washing2	0.5	30	2	700	4	-	10%	80%	0%	10
6	6	Elute	3	30	0	60	10	80	5%	80%	0%	10
7	2	Discarding magnetic beads	0.5	0	0	700	8	-	10%	80%	0%	10
Other settings (in the Options menu): Heating: heating can start with action at the same time Absorption: three-stage absorption												

3.4 After the extraction, transfer the eluent from the Columns 6 or 12 of the 96 deep well plate (pay attention to the effective working well position) to a clean Nuclease-free centrifuge tube. If you do not use it immediately, please store the products at -20℃.