

Catalog Number: Y502-G45

Version: FML1715

Virus DNA/RNA Extraction Kit (Magnetic Beads)

[Packaging] 480preps/kit

[Intended Use] The Virus DNA/RNA Extraction Kit (Magnetic Beads) is designed for rapid purification of high quality nucleic acid DNA from blood. The treated products are used for clinical *in vitro* test.

[Principle] This reagent is suitable for extracting viral DNA/RNA from samples such as nasopharyngeal swabs. This kit uses magnetic beads with a unique separation effect and a unique buffer system. The magnetic beads have a strong affinity for nucleic acids under certain conditions. When the conditions change, the magnetic beads release the adsorbed nucleic acids, which can achieve rapid separation and purification. The purpose of nucleic acid. The whole process is safe and convenient, and the high-purity viral nucleic acid is extracted with stable and reliable quality, which is especially suitable for the automatic extraction of high-throughput workstations. The extracted nucleic acid can be directly used in various downstream experiments such as PCR, RT-PCR, and Real-Time PCR.

[kit Contents] It is mainly composed of nucleic acid extraction reagents, magnetic beads, etc.

[Storage]All Reagents can be stored at room temperature (15–25°C) for 12 months.

[Instrument] Automatic or semi-automatic nucleic acid extractor based on the principle of magnetic bead adsorption, such as Jifan Purifier 96 nucleic acid extractor.

[Sample Requirements]

Nasopharyngeal swab sample collection: According to the clinical testing requirements issued by the National Health Commission and its subordinate authorities. If the volume is less than 300µL, physiological saline or PBS can be added to make the total volume reach 300µL before extraction. Samples should be tested as soon as possible. Samples that can be tested within 72 hours can be stored at 2-8°C; samples that cannot be tested within 72 hours should be stored at -70°C or below (if there is no -70°C storage condition, then Temporarily store in the refrigerator at -20°C). Samples should avoid repeated freezing and thawing.

[Protocol]

1. Take out the pre-packaged deep-well plate and mix it upside down several times to resuspend the magnetic beads. Gently shake the well plate to concentrate the reagents and magnetic beads on the bottom of the well (or a well-plate centrifuge, 500rpm×1min for centrifugation) , Carefully tear off the aluminum foil sealing film before use to avoid vibration of the orifice plate and prevent liquid from spilling.

2. Add 200 µl or 300 µl sample to Plate1 (sample needs to be equilibrated to room temperature)

Note: Please run the program on the computer within 1h after sample addition.

3. Put the magnetic rod cover into Plate 2.

4. Follow the prompts to put the 3 pre-packaged boards into the correct position of the machine.

5. Select the program Table 1/Table 2 and run it. Different models have different running programs. See Table 1 and Table 2 for specific programs.

6. After the automatic procedure is over, take out the nucleic acid in Plate 3, seal it with a parafilm, store it at -20°C for short-term storage, and store it at -80°C for long-term storage.

Table 1. Procedure (instrument code number: P96)

Step	Well	Name	Volume (μL)	Heat		stay		Position	shock		magnetic			
				Value(°C)	on/off	mode	time (s)		time (s)	strength	Position	time	cycle	mode
1	2	load												
2	2	get beads	500					90%	10	middle	90%	20	3	Step-by-step
3	1	binding	700	65	ON			90%	180	high	90%	20	4	Step-by-step
4	2	washing	500					90%	15	high	90%	15	1	Step-by-step
5	3	elution	50	85	ON			90%	120	high	90%	15	4	Step-by-step
6	2	unload	500											

Table 2. Procedure (instrument code number:PHT101-96)

Step	Well	Name	Agitation			Volume (ul)	Heat		magnetization time(s)	Out of tube Time(s)
			amplitude	frequence	time(s)		Temperature	Time(s)		
1	2	load								
2	2	binding	middle	fastest	10	500	65-MIX	10	20sec,Loop3	
3	1	binding	middle	fastest	180	700	65-MIX	180	20sec,Loop4	
4	2	binding	middle	fastest	15	500	65-MIX	15	15sec,Loop1	
5	3	elution	low	fastest	120	50	85-MIX	120	15sec,Loop4	
6	2	unload				500				

After the program runs, collect the eluted solution in the third plate, which is the extracted nucleic acid.

Note: Before and after the use of the nucleic acid extractor, the UV lamp needs to be irradiated for 15 minutes.

[Limitations of the test method]

1. This kit only provides nucleic acid extraction from clinically applicable samples, and the results are used for qualitative or quantitative detection of nucleic acid.
2. The extraction process should avoid false positives of subsequent experimental results due to environmental pollution.
3. The workbench and various experimental supplies should be disinfected regularly with 1% sodium hypochlorite, 75% alcohol or ultraviolet light.
4. Use sterile enzyme-free, DNA-free, sterile pipette tips and centrifuge tubes with filter elements.
5. Wear latex gloves and glasses during operation, avoid contaminating skin, eyes and clothes, and be careful not to inhale your mouth and nose. If the skin and eyes are contaminated, rinse immediately with plenty of water, and seek medical help if necessary.
6. Reliable results depend on sample collection, transfer, storage and processing procedures.
7. The reagent is limited to the specified sample types and applicable models.
8. Sample size: no more than 300μL.

[Product Performance Index]

1. Appearance

- a) The kit is packaged intact without deformation;
- b) The kit should have complete components, clean packaging, no leakage, no damage, and clear signs and labels;

2. Quantity

Meet the technical requirements.

3. Extraction efficiency

Meet the technical requirements.

4. Intra-run precision

Meet the technical requirements.

[Precautions]

1. Please read the instructions carefully before use and operate in strict accordance with the requirements.
2. The operators can take up the post only after relevant trainings.
3. Note not to cause cross contamination during sample operation.
4. It is normal if there is crystallization in the lysate. Please incubate the lysate at 50~60°C for 30 minutes until the crystallization is completely melted, shake well, and cool to room temperature before use.
5. Please do not use the product beyond the expiration date, and do not mix the reagent components of different batch numbers.
6. The samples to be tested involved in the kit should be considered as infectious substances, and should be handled and treated according to the requirements of *General Rules for Safety of Microorganism* and *Biomedical Laboratory and Regulations for Management of Medical Wastes*.

[Symbols]

Symbols	Meanings
	Manufacturer
	Authorized representative in the European Community
	<i>In vitro</i> diagnostic medical device
	This product fulfills the requirements of the European Directive 98/79 EC for <i>in vitro</i> diagnostic medical devices.
	Catalogue number
	Batch code
	Date of manufacture
	Use-by date
	Temperature limit
	Consult instructions for use
	Keep dry
	Keep away from sunlight
	Contains sufficient for <480> tests
	Do not re-use
	Do not use if package is damaged



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