Step	Well	Name	Waiting Time （min ：ss）	Mixing Time （min ：ss）	Magnet Time （min ：ss）	Adsorption	Speed	Volume （μL）
1	1	Lysis	0 : 0	10 : 0	0 : 0		F	900
2	6	Beads	0 : 0	0 : 15	0 : 30	√	M	200
3	1	Binding	0 : 0	10 : 0	0 : 35	√	F	900
4	2	Wash 1	0 : 0	2: 0	0 : 30	√	F	700
5	3	Wash 2	0 : 0	1: 0	0 : 30	√	F	700
6	4	Wash 3	0 : 0	1: 0	0 : 30	√	F	700
7	5	Elution	2 : 0	5 : 0	0 : 35		F	80
8	6	Discard	0 : 0	0 : 30	0 : 0		S	200

Lysis temperature : 75℃, lysis heating end step 2;

Elution temperature : 75℃, elution start heating step 7 .

Analysis of Nucleic Acid

The extracted product is confirmed by the high sensitivity HBV DNA detection reagents that the sensitivity reaches 5 IU/ml; the linear range reaches 10 IU/ml-10^7 IU/ml. This result is repeatedly tested and confirmed by national standard quality-controlled product.

The extracted product is confirmed by the high sensitivity HCV RNA detection reagents that the sensitivity reaches 50IU/ml; the linear range reaches 100IU/ml-10^7IU/ml. This result is repeatedly tested and confirmed by national standard quality-controlled product.

Company Infomation

Manufacturer: Hangzhou Bioer Technology Co.,Ltd

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Aftersales Service Provider: Hangzhou Bioer Technology Co.,Ltd

MagaBio plus Virus DNA/RNA Purification Kit II

Kit Components

Cat#	BSC71S1E	BSC71S1B	BSC71M1B
Components	**32 Tests**	**50 Tests**	**100 Tests**
PK Solution	320 μL	500 μL	1mL
Lysis Buffer	96 Well pre-packed plate 2 Pieces	30mL	60mL
Wash Buffer I		24 mL (add 16mL absolute ethanol before use)	24mLx 2 (add 16mL absolute ethanol before use)
Wash Buffer II		12mLx 2 (add 28mL absolute ethanol before use)	12mLx 4 (add 28mL absolute ethanol before use)
RElution Buffer		10 mL	20 mL
MagaBio Reagent		1.25mL	2.5 mL
Handbook	1	1	1

Storage and expiry date

- The kit can be transported at room temperature.
- The kit should be stored at 2~8℃.
- All reagents are valid for 12 months if stored properly.

Introduction

The kit provides a very simple, fast and cost effective technique to isolate high quality Virus DNA/RNA. Using one simple protocol, high yield of purified DNA/RNA can be isolated from whole blood,serum,plasma,faeces and body fluid. The pure nucleic acid can be applied extensively in PCR, RT-PCR,sequencing, mutant analysis, SNP and the others.

Principle and Advantage

Nucleic acid in the sample is released only using Lysis Buffer. Released Virus DNA/RNA is bound exclusively and specifically to the Maganetic beads. The Virus DNA/RNA bound to magnetic particles is captured by magnetic material; contaminants are removed by washing with Wash Buffer. The nucleic acid is then eluted from the particles with an Elution Buffer.

MagaBio magnetic technical have great advantages:

1. Mini sample, high purification, high sensitivity

2. Simple and streamline separation procedure, used for auto-platform
3. No protease K,no carrier RNA
4. No organic solvent, no inhibitor
5. No spin column, no centrifuge

Apparatus and materials to be prepared by the user

1. Magnetic Rack or Bioer NPA-32P purification instrument
2. Water bath or Dry bath
3. Vortex mixer
4. Absolute alcohol (For BSC71S1B and BSC71M1B)

Important Notes

5. This kit is for research use only.
6. Before you begin, you should read this user's manual carefully.
7. The use of nuclease-free lab ware (e.g. pipettes, pipette tips, reactions vials) as well as.
8. Wearing gloves when performing the assay.
9. To avoid cross-contamination of samples and reagents use fresh aerosol-preventive pipette tips for all pipetting steps.
10. After the experiment，please disinfect the workbench with 75% ethanol or 10% hypochlorous acid, and sterilize the workplace by UV lamp.

Protocol

The manual purification

Please add absolute ethanol to WB1 Buffer and Wash Buffer and mix thoroughly before the first use.

I. Sample pretreatment

1. Sample processing from different sources

a. Serum,Plasma, Ascites or other liquid samples virus: Add 600μL Lysis Buffer to the 1.5mL microcentrifuge tube, and then add 300μL sample,10μL PK Solution and vortex.

b. Animal /plant tissue virus: Grind sample fully with normal saline or PBS, centrifuge at 12,000g for 5-10min, add 300μL supernatant to the microcentrifuge tube, then add 600μLLysis Buffer ,10μL PK Solution and vortex.

c. Faeces virus: Grind sample fully with normal saline or PBS, centrifuge at 12,000g for 5-10min, add 300μL supernatant to the microcentrifuge tube, then add 600μL Lysis Buffer ,10μL PK Solution and vortex.

2. Whole blood,saliva or other viscous liquid virus: Add 600μL Lysis Buffer to the 1.5mL microcentrifuge tube, and then add 200μL sample,10μL PK Solution and vortex.

3. Incubate at 70℃ for 10 minutes. (If the virus is more difficult cracking, please appropriately increase warm bath time.)

II. Sample extraction operation

1. Add 25μL of the **well-mixed** (particles should be suspended) MagaBio Reagent.
2. Mix the tube gently and incubate for 5 minutes at room temperature while mixing.
3. Centrifuge the tubes for a short while. Put it on magnetic rack for 1 minute. Discard the supernatant.
4. Add 700 μL Wash Buffer I and vortex for 15 seconds. Centrifuge the tube for a short while. Put it on magnetic rack for 1 minute. And then discard the clarified supernatant.
5. Add 700 μL Wash Buffer II and vortex for 15 seconds. Centrifuge the tube for a short while. Put it on magnetic rack for 1 minute. And then discard the clarified supernatant.
6. Add 700 μL Wash Buffer II and vortex for 15 seconds. Centrifuge the tube for a short while. Put it on magnetic rack for 1 minute. And then discard the clarified supernatant. Meanwhile, Open the cap and keep the 1.5ml centrifuge tube still on the magnetic rack,dry for 5min.
7. Add 80μL of RElution Buffer and vortex for 30s.Incubate at 70℃ for 5 minutes. Waving the tube lightly twice during this time in order to dissolve the DNA/RNA.
8. Centrifuge the tube for a short while. And then put it on magnetic rack for 1 minutes, and keep the supernatant to a new tube for use later.

The automatic purification

With automation machine, the kit is deeply suitable for several samples, which supply a really platform of automation or streamline protocol and achieve high-throughput and high-speed but effective purification. The lysis temperature and the elute temperature should be adjusted. An example for applying the kit on our product NPA-32P:

1. Reagent preparation

1) For BSC71S1B and BSC71M1B

Add 600μL Lysis Buffer to the 2.2mL 96 Deep Well column 1 and 7; 700μL WB1 Buffer to column 2 and 8; 700μL Wash Buffer to column 3,4 and 9, 10; 80μL Elution Buffer to column 5and 11; 175μL Pure Water and 25μL MagaBio Reagent to column 6 and 12.

2) For BSC71S1E

Turn the 96-well plate upside down three times after placed at room temperature, then rip off plastic film, centrifuge in 96-well centrifuge for seconds (or swing by hand) to avoid adhered liquid. Rip off aluminum foil film of 96-well plate; make sure the direction of the plate (magnetic beads in column 6th&12th).

2. Add 300μL sample and 10μL PK Solution to the 96-Deep Well column 1 and 7.
NOTE: **The sample pretreatment please refer to the manual purification,add 200μL of sample for saliva or other viscous liquid.**

3. Put 96-Deep Well plate into the instrument, then plugs in 8-strip Tip and start the program.