Biospin Virus DNA/RNA Extraction Kit

Package

50 Columns/100 Colums

Application

Simultaneous purification of viral RNA and DNA from plasma, serum, and cell-free body fluids.

Principle

Lysis is performed in the presence of Proteinase K and Lysis Buffer, which together ensure inactivation of DNase and RNases. Binding conditions are adjusted by adding ethanol to allow optimal binding of the viral RNA and DNA to the membrane. Lysates are then transferred onto a spin column and viral nucleic acids are adsorbed onto the silica-gel membrane as the lysate is drawn through by centrifugation. Nucleic acids remain bound to the membrane, while contaminants are efficiently washed away during 3 wash steps. In a single step, highly pure viral RNA and DNA are eluted in Elution Buffer at room temperature.

Contents

Cat#	**BSV050**	**BSV100**	**Ingredients**
Kit Content	**50 Tests**	**100 Tests**	
Lysis Buffer	10 mL	20 mL	Salt and Tris-HCl Buffer
Proteinase K(PK)	500μL	1mL	Proteinase K
Wash Buffer I	※18mL	※36mL	High-salt solution
Wash Buffer II	※12mL	※24mL	Low-salt solution
Elution Buffer	10mL	20mL	RNase-free H_2O
Spin Columns	50	100	Plastic parts and nucleic acid adsorption film
Handbook	1	1	

BSV050 add 12mL Absolute ethanol to ※18mL Wash Buffer I before use.

add 48mL Absolute ethanol to ※12mL Wash buffer II before use.

BSV100 add 24mL Absolute ethanol to ※36mL Wash Buffer I before use.

add 96mL Absolute ethanol to ※24mL Wash buffer II before use.

Reagent prepared by the user

Absolute ethanol (AR).

Storage and transportation

1) The kit can be transported at room temperature.
2) The kit has demonstrated stability of 12 months when stored at room temperature.

Instrument

Microcentrifuge capable of 14,000rpm, Metal bath or Water bath, Vortex mixer.

Sample requirements

If the liquid sample volume is less than 200μL, you can add PBS or normal saline to make the total volume to 200 μL.

Test method

Ⅰ Sample pretreatment

Animal/Plant Tissue: Grind sample fully with normal saline or PBS, take the supernatant after centrifugation.

Serum, Plasma, Ascites and other liquid samples: Extraction directly.

Swab samples: add 400-500μL PBS or normal saline to swab samples, and rotate vigorously for 1 min. Take 300μL immersion solution to a 1.5mL microcentrifuge tube.

Fecal: Add an appropriate amount of normal saline or PBS into the samples, shake them thoroughly, centrifuge them at 12000g for 5min, and take the supernatant for extraction.

Ⅱ Sample extraction operation

1. Pipet 10μL PK into a 1.5 mL microcentrifuge tube (not provided).
2. Add 200μL sample (If the sample volume ≤200 μL, replenish PBS or normal saline to a volume of 200μL) into the microcentrifuge tube.
3. Add 200μL Lysis Buffer. Vortex mixing 30 seconds.
4. Incubate at 56℃ for 15 min in a heating block. Briefly centrifuge the 1.5 mL tube to remove drops from the inside of the tube lid.
5. Add 250 μL of ethanol (96–100%) to the sample, close the cap and mix thoroughly by pulse-vortexing for 15 s. Briefly centrifuge the 1.5 mL tube to remove drops from the inside of the tube lid.
6. Transfer the mixture into a Spin Column, centrifuge at 10,000 g for 1 minute and discard the flow-through.
7. Add 500μL Wash Buffer I into the Spin Column, centrifuge at 10,000 g for 1 minute and discard the flow-through.
8. Add 500μL Wash Buffer II into the Spin Column, centrifuge at 10,000 g for 1 minute and discard the flow-through.
9. Add 500μL Wash Buffer II into the Spin Column, centrifuge at 10,000 g for 1 minute and discard the flow-through.
10. Place the spin column in a clean 1.5 mL collection tube. Centrifuge at 10,000 g for 2 min to dry the membrane completely.

11. Place the spin column in a clean 1.5 mL collection tube. Add 50-100 µL Elution Buffer (or RNase-free water pH>7.0) to the central of the membrane; Incubate at the room temperature for 2 minutes.
12. Centrifuge at 12,000 g for 1 minute. Remove the Spin Basket and discard. Then the buffer in the microcentrifuge tube contains the DNA/ RNA.

Notice

1. Lysis Buffer may be precipitated at low temperature, please heated at 56 ℃ for a few minutes to restore the clarification.
2. Wash Buffer I and Wash Buffer II add the absolute ethanol as the volume marked on bottle label and mix well.

Company Information

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