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Magbead Viral DNA/RNA Kit

Product: Magbead Viral DNA/RNA Kit

Size: 96 preps, 800 preps

Applications

It is used for nucleic acids isolation, enrichment and purification. The processed products can be used for clinical diagnosis in vitro.

Principle

Magbead Viral DNA/RNA Kit provides a simple, rapid and efficient method to extract DNA/RNA from whole blood, tissue homogenate, swab, serum, plasma, bronchoalveolar lavage fluid and other cell-free body fluids. The unique buffer system enables the nucleic acid in the lysate to be efficiently and specifically binded to the magbeads. The obtained nucleic acid has high purity, stable quality, and is free of protein, nuclease and other contaminants and inhibitors. It can be applied to various conventional operations, including PCR, fluorescence quantitative PCR and other experiments.

Kit Components

Component	96 preps		800 preps	
	Size	Quantity	Size	Quantity
Lysis Buffer	25 ml/bottle	1	200 ml/bottle	1
Washing Buffer 1	50 ml/bottle	1	480 ml/bottle	1
Washing Buffer 2	50 ml/bottle	1	480 ml/bottle	1
RNase-Free Water	10 ml/bottle	1	100 ml/bottle	1
Proteinase K	1.25 ml/tube	2	20 ml/bottle	1
Magbeads Suspension Solution	1.5 ml/tube	1	10 ml/bottle	1

Storage Condition and Valid Period

Proteinase K should be stored at - 20°C± 5°C, other components can be stored at 0-35°C, and the shelf life is 12 months.

We suggest products transportation at 0-40°C for no more than 7 days.

Sample Requirements

Applicable Samples: Whole blood, tissue homogenate, swab, serum, plasma, bronchoalveolar lavage fluid and other cell-free body fluids.

Equipment and Reagents to Be Supplied by User

1. Manual extraction
   1) Constant temperature mixer (CWBIO, CW2593 is recommended)
   2) 2/15ml Magnetic device (CWBIO, CW2594 is recommended)
   3) Isopropanol.
2. Automated extractio
   (Compatible with CWBIO's automated nucleic acid extractor, CWE2100)
   1) Automated nucleic acid extractor (CWE2100)
   2) Isopropanol
   3) 96 DW Plate(CW2523); 8 channel Comb(CW2524)
3. Automated extraction
   (Compatible with CWBIO's automated nucleic acid extractor, CWE9600)
   1) Automated nucleic acid extractor (CWE9600)
   2) Isopropanol
   3) 96 DW Plate(CW2523); Spin tips pack (CW2532)

Procedure

Things to do before starting: Mix all the reagents and gently invert 3-5 times before use. Shake the bottle containing Magbeads Suspension Solution and vortex for 2 minutes (before first use) or 1 minute (before subsequent use) to ensure that the magbeads are fully resuspended before use.

1. Manual extraction

1.1 Take 1.5 ml centrifugal tube (supplied by user), add 20 µl proteinase K, 200 µl sample (needs to be balanced to room temperature), 200 µl lysis buffer,300 µl isopropanol. Vortex for 5 seconds, and place it at room temperature and vortex for 10 minutes.

Notes: For wet swab, take 200 µl sample, mix it thoroughly. Whereas, soak the dry swab sample in 400 µl normal saline and mix well, let stand for 5 minutes, centrifugate at 12000 rpm for 1 minute, and extract 200 µL.

1.2 Add 10 μl magbeads Suspension solution into the centrifuge tube, vortex for 10 seconds, place it at room temperature, and shake it with constant temperature mixer at 1200 rpm for 5 minutes.

1.3 Place the centrifuge tube on the magnetic device. After the magbeads is completely absorbed, discard all the liquid.

1.4 Add 500 μl washing buffer 1 to the adsorption column, vortex for short seconds, place it at room temperature, and centrifugate at 12000 rpm for 2 minutes.

1.5 Place the centrifuge tube on the magnetic device. After the magbeads is completely absorbed, discard all the liquid.

1.6 Add 500 μl washing buffer 2 to the adsorption column, vortex for short seconds, place it at room temperature, and centrifugate at 12000 rpm for 2 minutes.

1.7 Place the centrifuge tube on the magnetic device. After the magbeads is completely collected, discard all the liquid.

1.8 Let it dry for 2-5 minutes to remove residual ethanol.

1.9 Add 100 μl RNase-Free water to into the centrifuge tube, and mix it for 5 minutes by vortex vibration on the constant temperature mixer at 56°C and 1200 rpm.

1.10 Keep the centrifuge tube on the magnetic device, after the magbeads are collected, transfer the nucleic acid solution into the new centrifuge tube, and store it at -80°C for prolonged preservation.

2. Compatible with CWBIO's automated nucleic acid extractor CWE2100.

DNA / RNA can be extracted from 1-32 samples at one time using CWE2100.

2.1 Add the reagents to 96 DW plate according to the table below (the sample needs to be balanced to room temperature).

Position	Regents & Volume
1&7 column	Proteinase K: 20 μl Sample: 200 μl Lysis buffer: 200 μl Isopropanol: 300 μl
2&8 column	Washing buffer 1: 500 μl
3&9 column	Washing buffer 2: 500 μl Magbeads Suspension solution: 10 μl
6&12 column	RNase-Free water: 100 μl

2.2 Put the plates into CWE2100 equipment, fix the 8 channel Comb, and run CWE2100 program. After 25 minutes, take out the plates, and the samples of the 6th and 12th columns were transferred to the centrifuge tube for long-term preservation at -80°C.

3. Compatible with CWBIO's automated nucleic acid extractor CW9600.
DNA / RNA can be extracted from 96 samples at one time using CWE9600.

3.1 Add the reagents to each well of the 96 DW plate according to the table below (the sample needs to be balanced to room temperature).

Position	Regents & Volume
Spin tips pack	96 DW Plate Spin tips pack
Sample plate	Proteinase K: 20 µl Sample: 200 µl Lysis buffer: 200 µl Isopropanol: 300 µl
Washing plate 1	Washing buffer 1: 500 µl
Washing plate 2	Washing buffer 2: 500 µl Magbeads Suspension solution: 10 µl
Elusion plate	RNase-Free water: 100 µl

3.2 Put the plates into CW9600 according to equipment tips, and run CWE9600 program. After 30 minutes, take out the Plates, and the samples of elusion plate were transferred to the centrifuge tube for long-term preservation at -80°C.