### 5. Elution

7) Place the spin column into a new 1.5 mL collection tube, add 50-100 μL of RNase-free dd$H_2O$ and place the column at room temperature for 2mins. Centrifuge at 12,000 rpm for 2 minutes at room temperature to elute and collect the RNA.

RNase-free dd$H_2O$ could be preheated in 65-70℃ water bath to increase elution efficiency.

## Index of Symbols


Consult instructions for use


Manufacturer


Temperature limit

Batch code


Date of manufacture


Use-by date


Do not use if package is damaged and consult instructions for use


Do not re-use

In vitro diagnostic medical device

Authorized representative in the European Community/ European Union

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biocomma

CE IVD EC REP CMC Medical Devices & Drugs S.L. C/ Horacio Lengo, 18, 29006, Málaga, Spain

# biocomma® Nucleic Acid Purification Kit

DA-AI-01-001EN

## Virus DNA/RNA Purification Kit

**(spin column)**

**Product name:** Nucleic Acid Purification Kit
**Model:** MNP027-1E
**Type:** CNPM
**Specification**: 50pcs/box

## Application

Using classic silica membrane adsorption technology and unique buffer system, biocomma® Virus DNA/RNA Purification Kit (spin column) can extract DNA/RNA from blood, tissue, organs, environmental sample, saliva and nasal sample, and maximum remove impurities protein and other organic compound impurities. The extracted virus DNA/RNA can be directly used for downstream applications such as PCR, RT-PCR, qPCR and qRT-PCR experiment.

## Features

- The operation process is simple, quick, and non-toxic
- High purity DNA/RNA, stable quality

DA-AI-01-001EN

## Notice

**Please be sure to read this notice before using this kit.**

1. Avoid freezing and thawing the samples repeatedly, otherwise the extracted genome fragments will be reduced and the concentration will decrease.

2. Unless otherwise specified, all the centrifugation steps should be performed at room temperature.

3. Because Buffer PD contains irritants, please wear lab coat and gloves to protect yourself when operation. If splashed on skin or eyes, continuous rinse with clean water or saline immediately, go to the hospital for treatment if necessary.

4. The reagent contains alcohol, please tighten the bottle cap after use.

## KIT contents

| Contents | MNP027-1E (50pcs/box) |
|---|---|
| Buffer GLX | 30 mL |
| Buffer PD | 15 mL |
| Buffer PW | 15 mL |
| RNase-free dd$H_2O$ | 10 mL |
| Spin column RC2 | 50 pcs |
| 2.0 mL Collection tube | 50 pcs |
| Proteinase K（20 mg/mL） | 1 mL |

## Storage

The kits can be stored dry at RT (15-25 ℃) for 12 months.

## Preparation

1. Before first use, add the specified volume of reagent to Buffer PD, Buffer PW.

2. Prepare tip and collection tubes which are free of nucleic acid and nuclease.

3. Observe whether the solution precipitated before use, if there is precipitation in solution, dissolve it in 37 ℃ bath and cool to RT before use.

## Protocol

**Ensure that Buffer PW and Buffer PD have been prepared with appropriate volume of reagent as indicated in the label on bottle.**

### 1. Sample preparation

**A. Blood Sample**

Prepare adequate blood sample (plasma or serum) for later use.

**B. Sample of tissue homogenate**

Take 0.1 g sample (about the soybean size) transfer it to a 2 mL collection tube, add 1mL sterile saline. After being ground and mixed with grinder, centrifuge at 7,000 rpm for 5mins on a palm centrifuge. Take the supernatant for later use.

**C. Environmental samples**

Dust: Use a cotton swab to wipe the dust on the surface of the instrument, table, etc., put it into 500 μL of sterile saline, centrifuge at 7000 rpm for 5 minutes on a palm centrifuge. Take the supernatant for later use.

Sewage: Take a proper amount of sewage sample for later use.

**D. Saliva, nasal liquid**

Take a proper amount of nasal liquid or saliva sample for later use.

**E. Swab sample**

Take the oral, nasal or pharyngeal swab, put it directly into 500 μL of sterile saline and take the supernatant for later use. Or put the swab in transport medium for preservation.

### 2. Lysis

1) Take 100-300 μL of the processed sample, add 500 μL of Buffer GLX and 20 μL of Proteinase K, mix by vortex for 1 min, and place at room temperature for 5 min.

**Notice:** a) For samples hard to lysis, put it in 65℃ bath for 15-30mins will improve lysis efficiency.

b) If you need to remove RNA, add 4 μL RNase A (10 mg/mL, own – prepared reagent), and leave it at room temperature for 10 min to remove RNA.

### 3. Adsorption

2) Transfer the supernatant from step 2 into spin column RC2 which was put inside 2 mL collection tube. Centrifuge at 12,000 rpm for 1 minute and discard the flow-through. Put the spin column back into the 2 mL collection tube.

**Notice:** large volume solution could be added to RC2 in several times, small volume rare samples in the collection tube could be added to RC2 and centrifuge again to improve recovery efficiency.

### 4. Wash

3) Add 500 μL of Buffer PD to the spin column (ensure isopropanol was added before use), centrifuge at 12,000 rpm for 1mins at room temperature, and discard the flow through and put the spin column RC2 back to collection tube.

4) Add 700 μL of Buffer PW to the spin column (ensure absolute ethanol was added before use), centrifuge at 12,000 rpm for 1mins at room temperature, and discard the flow through and put the spin column RC2 back to collection tube.

5) Repeat step 4)

6) Centrifuge at 12,000 rpm for 2mins, and discard the flow through. Put the RC2 at room temperature for 5-10mins.

**Notice:** After wash, open the lid of spin column and put at room temperature for several minutes to remove ethanol.