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Virus Genomic DNA Kit

Product Number: DNK4001

Shipping and Storage

Storage at room temperature for 12 months does not affect the effectiveness of use, and each solution should be covered tightly in a timely manner after use

Components

Component	Storage	DNK4001 50 Preps
Buffer DLB	RT	20ml
Buffer RE	RT	25ml
Buffer WB	RT	15ml
Buffer EB	RT	15ml
Adsorption column AC	RT	50
Collection tube (2ml)	RT	50

Description

The Virus Genomic DNA Kit is suitable for rapidly extracting high-purity virus DNA from cell-free body fluids, including plasma, serum, ascites, cultured cell supernatant, cerebrospinal fluid, and urine, using a centrifugal adsorption column that specifically binds to virus DNA and a unique buffer system. This product can meet the extraction requirements of most viral DNA, such as viral DNA: HBV (hepatitis B virus) and CMV (cytomegalovirus). After virus lysis, DNA selectively adsorbs onto the silica matrix membrane in a highly dissociated salt state, and then undergoes a series of rapid rinsing and centrifugation steps to remove impurities such as salt, cellular metabolites, and proteins. Finally, pure viral DNA is eluted from the silica matrix membrane using a low salt elution buffer. The purified viral nucleic acid is free of impurities and PCR inhibitors, and can be directly used for analysis such as PCR, enzyme digestion, and hybridization.

Features

1. No toxic reagents such as phenol are required, and no steps such as ethanol precipitation are required.
2. Time saving, simple, and single sample operation can generally be completed within 20 minutes.
3. Multiple column washes ensure high purity, and the extracted virus DNA has high purity, stable and reliable quality, which can be applied to various operations, including PCR, enzyme digestion, hybridization, etc.

Protocol(Please read the precautions before the experiment)

Note:Before the first use, please add 60ml of anhydrous ethanol to the 15ml Buffer WB. After fully mixing, please mark the box with a check mark indicating that ethanol has been added in a timely manner to avoid multiple additions!

1. 200μl of serum and other body fluids (need to be returned to room temperature, if insufficient, 0.9% NaCl or PBS can be used to supplement) are transferred into the aforementioned 1.5ml centrifuge tube, and 400μl of Buffer DLB is added. Immediately vortex and shake thoroughly to mix
2. Place at room temperature (15-25°C) for 10 minutes, shake and mix well every 5 minutes
3. Add 450μl of anhydrous ethanol, immediately vortex and shake thoroughly.

   If the surrounding environment is above 25°C, it needs to be pre cooled on ice before adding.
4. Add the above mixture to an adsorption column AC, centrifuge at 13000rpm for 30-60 seconds (with the adsorption column placed in the collection tube), and discard the waste liquid in the collection tube.

   If the total volume exceeds 750μl, add 500μl Buffer RE to the same adsorption column AC.

5. Add 500µl Buffer RE, centrifuge at 12000rpm for 30 seconds, discard waste liquid
6. Add 500µl of Buffer WB (please check if anhydrous ethanol has been added first!), centrifuge at 12000rpm for 30 seconds to discard the waste liquid, add 500µl of Buffer WB, and repeat.
7. Put the adsorption column AC back into the empty collection tube, centrifuge at 13000rpm for 2 minutes, and try to remove Buffer WB as much as possible to avoid residual ethanol in Buffer WB inhibiting downstream reactions.
8. Take out the adsorption column AC and place it in a new centrifuge tube. Add 30-50µl of Buffer EB in the middle of the adsorption membrane (better heating effect in a water bath at 65-70°C beforehand), leave it at room temperature for 1 minute, and centrifuge at 12000 rpm for 1 minute. If you want to obtain a large amount of DNA, you can add the obtained solution back to the centrifuge adsorption column and centrifuge at 12000 rpm for 1 minute.

   The larger the elution volume, the higher the elution efficiency. If high DNA content is required, the elution volume can be appropriately reduced, but the minimum volume should not be less than 20µl. If the volume is too small, it will reduce the elution efficiency and DNA production.
9. DNA can be stored at 2-8°C, and if it needs to be stored for a long time, it can be stored at -20°C.