DNA Viral Genome Extraction Kit

Cat No.: D2400
Package: 50T/100T
Storage: Store dry at room temperature (15℃-25℃) for a retest period of 12 months, 2℃-8℃ for longer (proteinase K shipped as accessory, -20℃).

Kit content:

Component	50T	100T
Protease K	1mL	1mL×2
Solution V	25mL	50mL
Wash Buffer	15mL	15mL×2
Elution Buffer	10mL	20mL
Adsorption Column	50units	100units
Collection Tube	50units	100units

Product description:

This kit is suitable for the extraction of DNA viral genomes from serum, cell supernatant, and lymph fluid, and is not suitable for the extraction of RNA viral genomes. The genomic DNA extracted using this kit can be used for a variety of routine operations, including enzyme digestion, PCR, library construction, Southern hybridization, and other experiments.

Operation steps (for reference only):

Before use, add absolute ethanol to the rinse solution, and to the label on the bottle (add 45mL of absolute ethanol to each bottle). All centrifugation steps were performed at room temperature using a benchtop centrifuge.

1. Virus supernatant was 0.5mL, centrifuged at 12000rpm for 5min, absorb the supernatant as far as possible and discard the precipitation.
2. 20μL of proteinase K was added to the viral supernatant, mixed well, and digested at 65℃ for 10-20min, before reversing the centrifuge tube for several times.
3. Add 500μL of solution V to the tube and mix well. Then 400μL of anhydrous ethanol is added to the tube to fully mix well. At this time, flocculent precipitation may appear, which does not affect the extraction of DNA. The solution and flocculent precipitation can be added to the adsorption column and stand for 2min. (The maximum volume of the adsorption column is 750μL, which can be added in two times. After one adsorption centrifugation, the remaining mixed liquid was added to the column and centrifugation.)
4. After centrifugation at 12000rpm for 2min, the waste solution was discarded and the adsorption column was placed into the collecting tube.
5. Add 600μL of rinse solution to the adsorption column (check whether absolute ethanol has been added before use), centrifuge at 12000rpm for 1min, discard the waste liquid and put the adsorption

column into the collecting tube.

6. 600μL of rinse solution was added to the adsorption column, centrifuged at 12000rpm for 1min, the waste solution was discarded and the adsorption column was placed into the collecting tube.

7. It was centrifuged at 12000rpm for 2min to place the adsorption column at room temperature or a 50℃ temperature box for several minutes to remove the residual rinse solution from the adsorption column, otherwise the ethanol in the rinse solution would affect subsequent experiments such as enzyme digestion, PCR, etc.

8. The adsorption column was placed in a clean centrifuge tube, and 50μL-100μL of eluent preheated with 65℃ water bath was dropped to the central adsorption membrane, left at room temperature for 5min and centrifuged at 12000rpm for 1min.

9. The eluate from centrifugation was added to the adsorption column and centrifuged at 12000rpm for 2min to obtain high quality viral genomic DNA.

Note:

1. Protease K should be placed-20℃ for preservation.
2. Samples should avoid repeated freezing and thawing, otherwise it will cause smaller extracted DNA fragments and decreased extraction amount.
3. If there is precipitation in solution V, it can be re-dissolved in a 37℃ water bath without affecting the effect.
4. The volume of the elution buffer should not be less than 50μL, and too small the volume will affect the recovery efficiency. The pH value of the eluate also has an impact on the elution efficiency. If the eluate is made with water, the pH value should be about 8.0 (NaOH can adjust the pH value of the water to this range), and the pH value lower than 7.0 will lower the elution efficiency. The DNA product should be stored at-20℃ against DNA degradation.
5. DNA concentration and purity detection: the size of the resulting genomic DNA fragment is related to the preservation conditions and species of the virus. OD260 value of 1.0 is equivalent to approximately 50ug/mL of double-stranded DNA, and 40ug/mL of single-stranded DNA. The OD260/OD280 ratio should be 1.7-1.9. If the elution buffer is not used and deionized water is used, the ratio will be low because the pH and the presence of ions will affect the light absorption value, but does not indicate low purity.
6. If the virus content is too low, the last extracted genomic DNA may not be detected by electrophoresis, but other experiments such as PCR will have results.

Related products:

D1010 6×DNA Loading Buffer
T1060 50×TAE Buffer
T1050 5×TBE Buffer
M1060 D2000 DNA Ladder
M1400 1kb DNA Ladder
G8142 GoldView II Nucleic Acid Stain(5000×)
D1100 Plasmid Small-amount Extraction Kit
D1110 Plasmid Mass Extraction Kit
D1120 Gram-positive Bacteria
D1140 Small Amount of Endotoxin-free Plasmid Extraction Kit
D1160 Yeast Plasmid Extraction Kit
D1200 Agarose Gel DNA Recovery Kit
D1250 Polyacrylamide Gel DNA Recovery Kit
D1600 Bacterial Genomic DNA Extraction Kit