

RNA Viral Genome Extraction Kit

Cat No.: R2000

Package: 50T/ 100T

Storage: Store in dry and temperate condition(15°C-25°C), re-test period for 12 months. Storage at 2°C-8°C for longer.

Kit Contents:

Component	D2000-50T	D2000-100T
Proteinase K	1ml	1ml×2
Binding buffer	25ml	50ml
Washing column buffer	50ml	50ml×2
Washing buffer	15ml	15ml×2
RNase free ddH ₂ O	15ml	15ml×2
RNase free adsorbing column	50 units	100 units
RNase free collection tube	50 units	100 units

Product Description

RNA Viral Genome Extraction Kit is suitable for extract Genome from serum, cell supernatant, lymph fluid, not be suitable for DNA Viral. The RNA extracted by this kit can be used in RT-PCR.

Protocol

Adding absolute ethyl alcohol to Washing Buffer before use, adding volume please refer to the label on the bottle. All the centrifugation steps are using table centrifuge centrifugal at 2-8°C.

1. Viral supernatant 0.5ml, centrifuge for 5min at 12,000 rpm. Discard precipitate.
2. Add 20µl Proteinase K(10mg/ml) into the supernatant, mix thoroughly, incubate at 65°C for 10min. Invert the tube several times during incubating.
3. Preparation of RNase free adsorbing column: add 700 µl Washing column buffer into a RNase free column, incubate at RT for 2min, 2-8°C centrifuge for 2 min at 12,000 rpm, discard the flow-through and re-use the collection tube in the next step.
4. Add 500µl Binding buffer into the mixture in step 2, mix thoroughly. Then add 400µl absolute ethyl alcohol, mix thoroughly. White precipitate may form on addition of ethanol. Add the mixture into the RNase free column, incubate at RT for 2min..
5. Centrifuge for 2min at 12,000 rpm. Discard the flow-through and re-use the collection tube in the next step.
6. Wash the Adsorption Column with 700µl Washing buffer, centrifuge at 12,000rpm for 1min, discard the flow-through and re-use the collection tube in the next step.
Note: Washing buffer must be diluted with absolute ethanol before use.
7. Add 500ul Washing buffe to the adsorption column, centrifuge at 12000rpm for 1min, discard

the waste liquid, and put the adsorption column into the collection tube.

8. Centrifuge at 12000 rpm for 2 minutes, and place the adsorption column in a room temperature or 50° C incubator for a few minutes. The purpose is to remove the residual rinsing solution in the adsorption column, otherwise the ethanol in the Washing buffer will affect subsequent experiments such as enzyme digestion and PCR.
9. Put the adsorption column into a clean centrifuge tube, and drop 50ul-100ul RNase free ddH₂O preheated in a 65 °C water bath into the center of the adsorption membrane, leave it at room temperature for 5 minutes, and centrifuge at 12000 rpm for 2 minutes. You can get high-quality viral genome RNA.

Notes

1. Change gloves regularly. Bacteria on the skin can result in RNase contamination. Use RNase-free plastic and tips to avoid cross contamination.
2. Repeated freezing and thawing of stored samples should be avoided, since this leads to reduced RNA extraction.
3. If a precipitate has formed in Binding buffer, warm the buffer to 37°C until the precipitate has fully dissolved.
4. If the sample is not completely digested, the column may be blocked in the subsequent centrifugation steps, so the centrifugation time can be appropriately extended.
5. If the volume of eluted buffer is less than 50µL, it may affect recovery efficiency.
6. RNA should be stored in -70°C in case of degradation.
7. RNA detection: The size of the genomic RNA fragments obtained is related to factors such as the storage conditions and types of the virus. Because the virus does not contain ribosomal RNA, it cannot be detected by conventional electrophoresis, and can only be detected in later experiments. D260 value of 1 is equivalent to approximately 40 µg/ml single-stranded RNA.

Related Products

R1600 DNase/RNase-Free Water

SR0040 Surface RNase Eraseol

R1050 RNA Loading Buffer, 5×

SR0020 RNAlater, RNAlater

SR0080 RNAsaver

M1010 10×MOPS Buffer

SY1040 SYBR Green II(10000×)

R1100 Triquick Reagent (Trizol Substitute)

R1200 Total RNA Extraction Kit