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Datasheet
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ACExtract Viral RNA/DNA Kit for Detection

Cat# CE1026 - 50 Rxn

Storage at Room temperature

DESCRIPTION

Viral RNA/DNA Mini Kits provide the fastest and easiest way to purify viral RNA/DNA for reliable use in amplification technologies. Viral RNA/DNA can be purified from plasma (treated with anticoagulants other than heparin), serum, and other cell-free body fluids. Samples may be fresh or frozen, but if frozen, should not be thawed more than once. Repeated freeze–thawing of plasma samples will lead to reduced viral titers and should be avoided for optimal sensitivity. Cryoprecipitates accumulate when samples are subjected to repeated freeze–thaw cycles. This may lead to clogging of the membrane when using the vacuum protocol. Viral RNA/DNA Mini Kits are for general use and can be used for isolation of viral RNA/DNA from a wide variety of viruses, such as Viral RNA: HCV (hepatitis c virus), HIV (HIV), and HTLV (human t-lymphocyte tropic virus); Viral DNA: HBV (hepatitis b virus), CMV (cytomegalovirus), etc, but performance can not be guaranteed for every virus.

Viral RNA/DNA Mini Kits represent a well established technology for general-use viral RNA/DNA preparation. The kit combines the selective binding properties of a silica based membrane with the speed of microspin or vacuum technology and is highly suited for simultaneous processing of multiple samples. The sample is first lysed under highly denaturing conditions to inactivate RNases and to ensure isolation of intact viral RNA/DNA. Buffering conditions are then adjusted to provide optimum binding of the RNA/DNA to the silica membrane, and the sample is loaded onto the Mini spin column. The RNA/DNA binds to the membrane, and contaminants are efficiently washed away in two steps using two different wash buffers. High-quality RNA/DNA is eluted in a RNase-free water. The purified RNA/DNA is free of protein, nucleases, and other contaminants and inhibitors.

CONTENTS and STORAGE

Kit Contents	Storage	50 Preps
Buffer VLB	RT	20 ml
Poly Carrier	-20°C	200 µl
Wash Buffer RE	RT	25 ml
Wash Buffer RW	RT	10 ml Add indicated ethanol before first use
RNase-free H2O	RT	6 ml
Bind Columns	RT	50

Poly carrier can ship in ambient temperature. All reagents, when store in indicated temperature, are stable for 9 months.

FEATURES

1. Rapid isolation of high-quality, ready-to-use RNA/DNA
2. No organic extraction or alcohol precipitation
3. Consistent, reproducible result
4. Complete removal of contaminants and inhibitors

PROCEDURE

Note：Before the first use, add the indicated amount of ethanol into Wash Buffer RW bottles, mix well, and mark the bottle with a check.

1. Pipet 400 µl of Buffer VLB into a 1.5 ml micro tube.
   Option: If the sample size is small or the virus concentration is expected to be low, 4 µl Poly Carrier is recommended to be added to 400 µl VLB to maximize yield.
2. Add 200 µl plasma, serum, urine, cell-culture supernatant, or cell-free body fluid to the Buffer VLB in the micro tube. Mix by pulse-vortexing.
   Note: If the prepared sample is less than 200 µl, adjust the sample volume to 200 µl with PBS buffer.
3. Incubate at room temperature (15–25°C) for 10 min.
   Note: Viral particle lysis is complete after lysis for 10 min at room temperature. Longer incubation times have no effect on the yield or quality of the purified RNA/DNA. Potentially infectious agents and RNases are inactivated in Buffer VLB.
4. Briefly centrifuge the tube to remove drops from the inside of the lid.
5. Add 450 µl of ethanol (96–100%) to the sample, and mix by pulse-vortexing for 15s. After mixing, briefly centrifuge the tube to remove drops from inside the lid.
6. Transfer up to 700 µl mixture into a binding column placed in a 2 ml collection tube (provided). Centrifuge at 13,000 rpm for 30 s, and discard the flow-through. Repeat this step if the sample volume exceeds 700 µl.
7. Add 500 µl Wash Buffer RE, and centrifuge at 12,000 rpm for 30 s. Discard the flow-through.
8. Add 500 µl Wash Buffer RW(with ethanol added), and centrifuge at 12,000 rpm for 30 s. Discard the flow-through. Repeat Step 8 with another 500 µl Wash Buffer RW.
9. Place the binding column back into the same collection tube. Centrifuge the empty column at 13,000 rpm for 2 min to completely remove ethanol from the column.
10. Place the column in a RNase free microcentrifuge tube. Add 30-50 µl of RNase free water (Optional: pre-warm the water to 70－90°C will increase the RNA/DNA yield) to the center of the column membrane. Incubate at room temperature for 1 min, and centrifuge at 12,000 rpm for 1 min to elute the RNA/DNA.
    Note: if want higher concentration, repeat step 10 using the eluate from step 10. Reuse the centrifuge tube from step 10.
11. Store the purified RNA/DNA on ice if used within a few hours. For long-term storage, store the purified RNA/DNA at –80°C.

PRODUCT USE LIMITATION

These products are intended for research use only.