Datasheet for ABIN6952542

Virus Nucleic Acid Isolation Kit

Overview

Quantity:	100 tests
Application:	DNA Extraction (DEx), RNA Extraction (REx)

Product Details

Purpose:	The Virus Nucleic Acid Isolation Kit provides a fast, simple, and cost-effective method for the isolation of viral DNA/RNA from cell-free samples such as serum, plasma, body fluids and the supernatant of virus-infected cell cultures.
Sample Type:	Plasma, Serum
Specificity:	• Isolates both viral RNA and DNA, allowing simultaneous detection of both types of virus • Removes inhibitors that might interfere with downstream assays, ensuring greater assay specificity, sensitivity and reproducibility • Prepares nucleic acid samples in only 20 minutes • Yields a concentrated sample that is suitable for direct assay (no precipitation required) • Universal viral nucleic acid purification system - One kit for both DNA and RNA viral purification, allowing simultaneous testing of both viral types • Environment-friendly -Less infectious plastic waste due to the reduced number of hands-on steps • Safety - No phenol/chloroform extractions • Versatility - Spin and vacuum formats available • Quality - RNA suitable for downstream applications I>
Characteristics:	The Virus Nucleic Acid Isolation Kit provides a fast, simple, and cost-effective method for the isolation of viral DNA/RNA from cell-free samples such as serum, plasma, body fluids and the supernatant of virus-infected cell cultures. Its unique buffer system will efficiently lyse cells and degrade protein, allowing for the nucleic acid to be easily bound by the glass fiber matrix of the column. Contaminants such as salts, metabolites and soluble macromolecular cellular components are removed in the Wash Step. The phenol extraction and ethanol precipitation are not required, and the high-quality nucleic acid is eluted in the RNase-free elution buffer. The viral DNA/RNA isolated with the Total Nucleic Acid Isolation Kit (Virus) is suitable for a variety of

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	routine applications, including the Real-time PCR/RT-PCR, Automated Fluorescent DNA Sequencing, PCR, and other enzymatic reactions. The entire procedure can be completed within 15-20 minutes.
Components:	• Buffer V1 • Buffer V2 (Add ethanol) • Buffer W1 • Buffer W2 (Add ethanol) • Buffer RE • Column VN • Collection Tubes
Material not included:	• 1.5 mL Microcentrifuge tubes (DNase and RNase free) • PBS (Phosphate Buffered Saline • Absolute ethanol (96~100 %)

Application Details

Application Notes:	Sample: Up to 300 µL of the whole blood or Up to 200 µL of virus sample Format: Reagent and mini spin column Sample material: Serum, plasma, body fluids Operation time: 20 minutes Elution volume: 50 µL
Comment:	• Add 45 ml and 60 ml of the ethanol (96-100%) to the Buffer V2 and W2, and shake before use. • Check the Buffers before use for salt precipitation. Re-dissolve any precipitate by warming up to 37°C. • The Buffers V1 and W1 contain irritants. Wear gloves when handling these buffers. • Research Use Only. Not intended for any animal or human therapeutic or diagnostic uses.
Assay Time:	15 min
Assay Procedure:	**Step 1 Lysis** 1. Transfer up to 200 µL of the virus sample into a 1.5 mL microcentrifuge tube and add 400 µL of the Buffer V1. (If the sample is less than 200 µL, adjust the sample volume to 200 µL with the PBS) 2. Mix well and let it stand at the room temperature for 10 minutes. **Step 2 Nucleic Acid Binding** 1. Add 450 µL of the Buffer V2 (ethanol added) to the sample lysate and shake vigorously. 2. Place a Column VN in a 2 mL Collection Tube.

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3. Transfer 700 µL of the lysate mixture into the Column VN.
4. Centrifuge at 16,000 x g for 1 minute.
5. Discard the flow-through and place the Column VN back in the same Collection Tube.
6. Transfer the remaining lysate mixture to the Column VN.
7. Centrifuge at 16,000 x g for 1 minute.
8. Discard the flow-through and place the Column VN back in the same Collection Tube.

Step 3 Wash

1. Add 400 µL of the Buffer W1 into the Column VN.
2. Centrifuge at 16,000 x g for 30 seconds.
3. Discard the flow-through and place the Column VN back into the same Collection tube.
4. Add 600 µL of Buffer W2 (ethanol added) into the Column VN.
5. Centrifuge at 16,000 x g for 30 seconds.
6. Discard the flow-through and place the Column VN back into the same Collection tube.
7. Centrifuge at 16,000 x g again for 2 minutes to remove the residual Buffer W2.

Step 4 Elution

1. Place the Column VN in a clean 1.5 mL microcentrifuge tube (DNase and RNase free).
2. Add 50 µL Buffer RE or RNase-free water (pH is between 7.0 and 8.5) to the center of each Column VN, let it stand for 2 minutes, and centrifuge at 14,000 x g for 2 minutes.

Restrictions:	For Research Use only

Publications

Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)