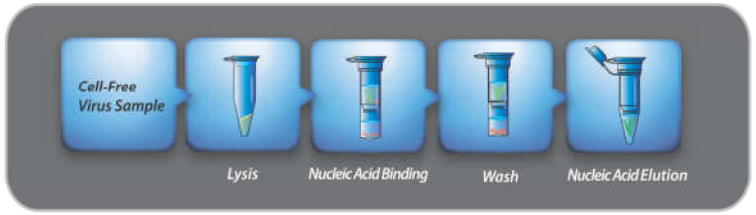
Real Genomics™

Store at room temperature 15°C~25°C



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HiYield™ Viral Nucleic Acid Extraction Kit Protocol Book

Ideal for Extracting Viral DNA/RNA from 200 µl of Cell-Free Samples

Cat. No. **YVN50 / YVN100 / YVN300**

HiYield™ Viral Nucleic Acid Extraction Kit

Store at room temperature 15°C~25°C

Cat. No. YVN50	Cat. No. YVN100	Cat. No. YVN300
50 preps/ kit	100 preps/ kit	300 preps/ kit
VB Lysis Buffer: 30 ml	VB Lysis Buffer: 60 ml	VB Lysis Buffer: 130 ml
AD Buffer(concentrated): 4 ml *	AD Buffer(concentrated): 8 ml *	AD Buffer(concentrated): 24 ml *
W1 Buffer: 30 ml	W1 Buffer: 50 ml	W1 Buffer: 130 ml
Wash Buffer(concentrated): 12.5 ml **	Wash Buffer(concentrated): 25 ml **	Wash Buffer(concentrated): 50 ml **
RNase-Free Water: 6ml	RNase-Free Water: 6 ml	RNase-Free Water: 30 ml
VB Column: 50 pcs	VB Column: 100 pcs	VB Column: 300 pcs
2ml Collection Tube: 100 pcs	2ml Collection Tube: 200 pcs	2ml Collection Tube: 600 pcs
All components are RNase -Free	All components are RNase -Free	All components are RNase -Free

Sample: Up to 200 µl of Plasma, Serum, Body Fluid or Supernatant of Viral Infected Cell Cultures
Viruses Included: Retroviruses, Influenza, Enteroviruses, DNA Viruses etc.
Format: Spin Columns
Operation: Centrifuge or Vacuum
Operation Time: 40 Minutes

* Add 30 ml of ethanol(96-100%) to 4 ml of AD Buffer prior to the initial use.
Add 60 ml of ethanol(96-100%) to 8 ml of AD Buffer prior to the initial use.
Add 180 ml of ethanol(96-100%) to 24 ml of AD Buffer prior to the initial use.
** Add 50 ml of ethanol(96-100%) to 12.5 ml of Wash Buffer prior to the initial use.
Add 100 ml of ethanol(96-100%) to 25 ml of Wash Buffer prior to the initial use.
Add 200 ml of ethanol(96-100%) to 50 ml of Wash Buffer prior to the initial use.

Description

HiYield™ Viral Nucleic Acid Extraction Kit is designed specifically for simultaneous purification of viral DNA/RNA from cell-free samples such as serum, plasma, body fluids and the supernatant of viral infected cell cultures. The entire procedure can be completed in 40 minutes. Purified Nucleic Acid is ready for use in subsequent reactions, including Real-time PCR, Real-Time RT-PCR, Automated Fluorescent DNA Sequencing, PCR, and other enzymatic reactions. This kit is recommended for parallel purification of viral DNA including HBV and CMV and viral RNA including HCV, HIV, and HTLV. The detection limit for certain viruses depends on the sensitivity of individual PCR or RT-PCR assays.

Features

Rapid isolation of cell-free viral DNA/RNA.
Complete removed of all contaminants for reliable downstream applications.
Simple procedure.

Applications

Purified nucleic acid is ready for wide range of downstream applications, such as RT-PCR, PCR, Real-Time PCR, Real-Time RT-PCR, Automated Fluorescent DNA sequencing and many other enzymatic reactions.

Quality Control

The quality of the HiYield™ Viral Nucleic Acid Extraction Kit is tested on a lot-to-lot basis by isolating viral DNA/RNA from a 200 µl plasma sample.

Product Intended Use (Research/Clinical Application):
HiYield™ Viral Nucleic Acid Extraction Kit is general purpose device. Real Biotech Corporation has not validated in clinical application for any particular system or organism and therefore offered no specific claims for uses in prognostics, diagnostics, blood banking etc. This device may be used in clinical diagnostics laboratory systems for molecular assays after the laboratory has validated their complete system as required by CLIA '88 regulations in the U.S. or local equivalents in other countries. All due care and attention should be exercised in handling this product.

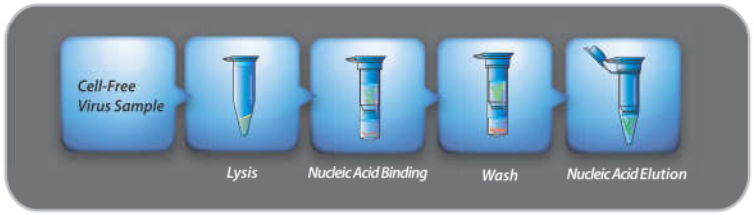
Reference: Vogelstein, B., and Gillespie, D. (1979) Proc. Natl. Acad. Sci. USA 76, 615.

Note: VB Lysis Buffer contains chaotropic salt which is a harmful irritant. During operation, always wear a lab coat, disposable gloves and protective goggles.

Protocol

Additional requirements:

* 96-100% Ethanol
* 1.5 ml microcentrifuge tube (DNase and RNase free)
* Sterile, RNase-free pipet tips
* PBS (phosphate-buffered saline)



Things to do before starting:

* Add absolute ethanol to the AD Buffer prior to initial use (see the bottle label for volume).
* Add absolute ethanol to the Wash Buffer prior to initial use (see the bottle label for volume).

Lysis

1. Transfer a 200 µl sample (serum, plasma, body fluids or the supernatant of a viral infected cell culture) into a 1.5 ml microcentrifuge tube. If the prepared sample is less than 200 µl, adjust the sample volume to 200 µl with PBS buffer.
2. Add 400 µl of VB Lysis Buffer to the sample and mix by vortex.
3. Incubate at room temperature for 10 minutes.

Nucleic Acid Binding

4. Add 450 µl of AD Buffer (ethanol added) to the sample lysate and shake vigorously.
5. Place a VB Column in a 2 ml Collection Tube.
6. Transfer 600 µl of the lysate mixture to the VB Column and centrifuge at full speed for 1 minute.
7. Discard the flow-through and place the VB Column back in the 2 ml Collection Tube.
8. Transfer the remaining lysate mixture to the VB Column and centrifuge at full speed for 1 minute.
9. Discard the 2 ml Collection Tube containing the flow-through and transfer the VB Column to a new 2 ml Collection Tube.

Wash

10. Add 400 µl of W1 Buffer to the VB Column and centrifuge at full speed for 30 seconds.
11. Discard the flow-through and place the VB Column back in the 2 ml Collection Tube.
12. Add 600 µl of Wash Buffer (ethanol added) to the VB Column and centrifuge at full speed for 30 seconds.
13. Discard the flow-through and place the VB Column back in the 2 ml Collection Tube.
14. Centrifuge at full speed (14,000 rpm) for 3 minutes to dry the column matrix.

Nucleic Acid Elution

15. Place the dried VB Column in a clean 1.5 ml microcentrifuge tube. (DNase and RNase free, not provided)
16. Add 50 µl of RNase-free water to the center of the VB Column matrix.
17. Let stand for 3 minutes until water is fully absorbed by the matrix.
18. Centrifuge at full speed (14,000 rpm) for 1 minute to elute purified nucleic acid.

HiYield™ Viral Nucleic Acid Extraction Kit

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