Viral DNA Extraction Kit

(Catalog# K1446-100; 100 tests; Storage at Multiple Temperatures)

I. Introduction:

This kit allows for extraction and purification of viral DNA from serum, plasma, urine, lymph, cell culture supernatants or from a variety of viral-containing fluids. Using proprietary Viral Lysis solution, viral DNA can be efficiently extracted and then purified using magnetic beads, yielding high pure viral DNA with a ratio of OD260/280 between 1.75 to1.85. The recovered DNA size can be up to 60kb.

The kit will work with a 48 well round bottom plates if a special magnetic frame is used. The kit can also be used with a variety of automatic nucleic acid extraction instruments or workstations.

II. Application:

- Extraction and purification of viral DNA.

III. Sample Type:

- Plasma
- Cell and tissue culture supernatants
- Serum
- Lymph
- Variety of viral-containing fluids

IV. Kit Contents:

Component	K1446-100	Part Number
Magnetic Beads	10 ml	K1446-100-1
Viral Lysis Solution	20 ml	K1446-100-2
Proteinase K Solution	2 ml	K1446-100-3
Wash Solution*	38 ml	K1446-100-4
Elution Buffer	20 ml	K1446-100-5

Add 25 mL of Isopropanol to Wash Solution* (K1446-100-4) before use.

V. User Supplied Reagents and Equipment:

- 80% Ethanol in water.
- Isopropanol (ACS grade).
- Magnetic racks compatible with vials.

VI. Storage Conditions:

Magnetic beads should be stored at 2-8°C but other kit reagents need to be stored at room temperature. Lysis solution may turn cloudy if stored in the cold room. To clear it up place the bottle in a water bath at 37°C.

VII. Assay Protocol:

1. Preparation of sample. Add 200 µl of viral fluid sample, 200 µl of viral lysis solution, and 20 µl of Proteinase K solution into a clean Eppendorf tube. Vortex for 30 seconds then incubates for 10 min at 58°C.
2. Add 100 µl of magnetic beads to the tube.
3. Add 300 µl of isopropanol to the tube.
4. Mix the tube well and incubate 5 min at room temperature.
5. Put the Eppendorf tube onto the magnet rack for 20 seconds. Make sure the beads are collected at the bottom of the tube.
6. Remove supernatant by holding the magnet rack upside down or by pipetting.
7. Wash the beads with 600 µl of wash solution. Vortex the tube to mix well.
8. Wash the beads with 500 µl of 80% ethanol for twice and repeat Step 5.
9. Dry the beads at 55°C for 3-4 min leaving the tube open. Do not over-dry the beads.
10. Elute the DNA from beads with 50-200 µl of elution buffer; incubate at 60°C for 2 min and then vortex at full speed for 1 min. At 5 min, repeat the vortexing once.
11. Remove beads by using magnet rack, pipette DNA out and transfer to a clean tube.
12. Store purified DNA at -20°C for long-term storage.

VIII. Related Products:

- PEG Virus Precipitation Kit (# K904)
- 96-well Viral DNA/RNA Kit (# K1417)
- PCR DNA extraction and purification kit (# K1444)
- Agarose Gel DNA Extraction Kit (# K1441)

FOR RESEARCH USE ONLY! Not to be used on humans.