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Virus DNA extraction and purification magnetic beads kit Data Sheet

Catalog Number:	EP10015	**Size:**	100T
Kit Components included:	• Si-Mag magnetic beads – 10 ml • Proteinase K – 2 ml • Viral Lysis solution – 20 ml • Wash solution – 60 ml • Elution Buffer – 10 ml		
Materials needed but not provided with the kit:	• 80% Ethanol • Isopropanol • Si-Mag Magnet (sold separately)		
Applications:	This kit provides a simple, rapid and efficient method for the recovery and purification of DNA directly from Agarose gel (100 bp to 50 kb) with typical recovery efficiency up to 85%.		
Storage:	Magnetic beads should be stored at 2-8°C, the Proteinase K should be stored at -20°C and other kit reagents need to be stored at room temperature. Avoid repeated freeze-thaw cycles.		

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 and 1.85. 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.

Precautions

1. Avoid freeze/thaw cycles and centrifugation which could damage the beads.
2. Proteinase K solution should be stored at -20°C.
3. Bring frozen viral samples to room temperature before extraction.
4. Vortex samples for about 10 seconds before adding magnetic beads.
5. Vortex beads and mix well with DNA to ensure best performance.
6. Elute DNA from the beads completely.

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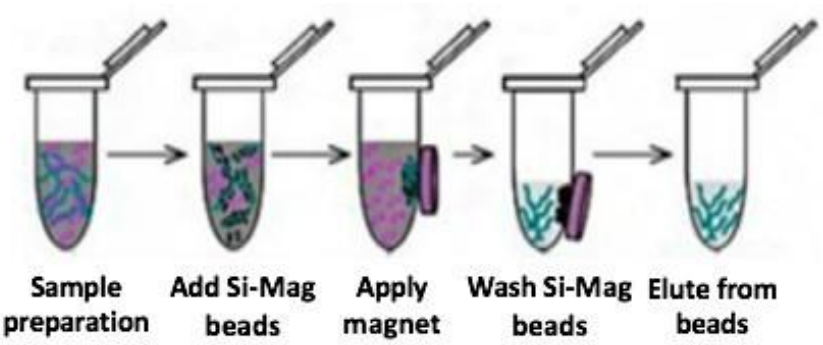
Principle of Assay:



Procedure for purification of viral DNA from viral samples

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

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