MB615PC1611 HiPurA® Pre- filled Cartridges for Viral RNA Extraction

Kit Contents

Product Code	Reagents provided	MB615PC1611
		1X48 PR
PF16C	Pre-filled Cartridges for Viral RNA Extraction	48 no
LA1118B	Magnetic Rod Tip	12 no
DS0013	Proteinase K	0.75 ml
DS1005	Mag Beads	0.75 ml
DS0042	Elution Solution (RNase free water)	4.5 ml

Intended Use

Recommended for isolation of Viral RNA from various samples like nasopharyngeal swab, oropharyngeal swab in Viral Transport Medium and other body fluids.

Introduction

HiPurA® Pre- filled Cartridges for Viral RNA Extraction provides the fastest and easiest way to purify viral RNA for reliable use in amplification technologies. HiPurA® Pre- filled Cartridges for Viral RNA Extraction can be used for isolation of viral RNA from a wide variety of viruses, but the performance may vary depending on virus type.

HiPurA® Pre- filled Cartridges for Viral RNA Extraction

This kit carries out efficient extraction of viral RNA from wide range of viral strains. Sample is first lysed under the highly denaturing conditions provided by Lysis Solution to inactivate RNases and to ensure isolation of intact viral RNA.

Elution

The yield of RNA depends on the sample type and the number of cells in the sample. A single elution with 50µl of Elution Solution will provide sufficient RNA to carry out multiple amplification reactions.

Storage

HiPurA® Pre- filled Cartridges for Viral RNA Extraction can be stored at room temperature (15-25°C) for up to 2 years without showing any reduction in performance. We advise a certain storage temperature for the reagents listed below:

- **On receipt store Mag beads (DS1005): at 2-8°C.**
- **On receipt store Proteinase K (DS0013): at -20°C.**

Materials needed but not provided

- RNase- free pipette tips (aerosol barrier recommended)
- Insta NX® Mag16 (LA1118)

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- Insta NX® Mag32 (LA1096)
- Vortex
- Cartridge Holder (LA1118CH)
- HiPer® Lock Microcentrifuge Tube, 2.0ml (Product Code: MBLA017)

Precautions to be taken while handling RNA

Ribonucleases (RNases) are very stable and active enzymes that generally do not require cofactors to function. Since RNases are difficult to inactivate and even minute amounts are sufficient to destroy RNA, do not use any plasticware or glassware without first eliminating possible RNase contamination. Great care should be taken to avoid inadvertently introducing RNases into the RNA sample during or after the isolation procedure. In order to create and maintain an RNase-free environment, the following precautions must be taken during pretreatment and use of disposable and non- disposable vessels and solutions while working with RNA.

1. Always wear latex or vinyl gloves while handling reagents and RNA samples to prevent RNase contamination from surface of the skin or from dusty laboratory equipment. Change gloves frequently and keep tubes closed whenever possible.

2. Use sterile, disposable plasticware and autoclavable pipettes reserved for RNA work to prevent cross-contamination with RNases from shared equipments.

3. Non-disposable plasticware should be treated before use to ensure that it is RNase-free. Plasticware should be thoroughly rinsed with 0.1M NaOH, 1mM EDTA followed by RNase-free water. Alternatively, chloroform-resistant plasticware can be rinsed with chloroform to inactivate RNases.

4. Glassware used for RNA work should be cleaned with a detergent, thoroughly rinsed, and oven baked at 240°C for four or more hours before use. Alternatively, glassware can be treated with DEPC (Diethyl pyrocarbonate). Fill glassware with 0.1% DEPC (0.1% in water), allow to stand overnight at 37°C, and then autoclave or heat to 100°C for 15 min to eliminate residual DEPC.

5. Electrophoresis tanks should be cleaned with detergent solution (e.g., 0.5% SDS), thoroughly rinsed with RNase-free water, and then rinsed with ethanol and allowed to dry.

6. Solutions (water and other solutions) should be treated with 0.1% DEPC.

General Preparation Instructions

1. **Thoroughly mix reagents**

   Examine the reagents for precipitation. If any kit reagent forms a precipitate (other than enzymes), warm at 55-65°C until the precipitate dissolves and allow cooling to room temperature (15-25°C) before use.

2. Ensure that clean & dry Nuclease-free tubes and tips are used for the procedure.

3. Vortex magnetic beads before use.

Specimen Handling and Collection

Collect nasopharyngeal swabs, oropharyngeal swab or nasal aspirate in a sterile container containing appropriate viral transport medium. The specimen can be stored at 4°C upto 48 hours after collection. If any delay is expected, it is recommended to store the specimens at -20°C or lower.

Type of Specimens: Clinical samples (Bronchoalveolar lavage, tracheal aspirate, sputum, nasopharyngeal swab, oropharyngeal swab, nasopharyngeal wash/aspirate or nasal aspirate in viral transport medium and other body fluids)

Set up processing cartridges as follows:

1. Switch on the UV light 10 mins prior to use.
2. Open the door of Insta NX® Mag16 machine.
3. Select **"1611"** program.
4. Place the Pre-filled Cartridges for Viral RNA Extraction (PF16C) into the Cartridge Holder (LA1118CH). Remove the seal from the Pre-filled Cartridges for Viral RNA Extraction (PF16C).

   NOTE: Take care while peeling off the seal. Hold the cartridge firmly by your one hand and then peel off the seal by holding it in your other hand without shaking.
5. Add **50µl of Elution Solution (RNase free water) (DS0042)** into the **6th well of the Pre-filled Cartridges for Viral RNA Extraction (PF16C).**
6. Add **400µl of sample, 15µl of Proteinase K (DS0013) and 15 µl of Mag Beads (DS1005)** in the **1st well of the Pre-filled Cartridges for Viral RNA Extraction (PF16C).** Place the Cartridge Holder (LA1118CH) along with cartridges on the platform.
7. Place the Magnetic Rod Tip (LA1118B) by sliding onto the machine.

   NOTE: After placing the rods ensure that the rods are properly fixed on their place.
8. Close the door of Insta NX® Mag16 machine.
9. Click on the **RUN** option on the home screen.
10. After the run is complete, remove Cartridge Holder (LA1118CH) & cartridge from the position. Discard the Magnetic Rod Tip (LA1118B). Dispense the eluted RNA from well 6 to a new HiPer® Lock Microcentrifuge Tube, 2.0ml (Product Code: MBLA017) (not provided). The eluate contains pure RNA.

    NOTE: A small amount of magnetic beads may be observed in the final eluate at the bottom of the tube. Avoid transferring these magnetic beads to your PCR reaction mixture.

    OR

    Take out eluate in new collection tube and centrifuge at higher speed for around 1 min to pellet down the traces of Magnetic beads present in the eluate.

***NOTE: If you process less than 4 samples at a time please order LA1118B- Magnetic Rod Tip (Pack size- LA1118B-4no/ LA1118B-40no).**

Storage of the eluate with purified RNA: The recommended storage temperature for the eluted RNA is -80°C. Avoid repeated freezing and thawing of the sample which may cause denaturing of RNA.

Warning and Precautions

Certified for *in vitro* Diagnostic Use (IVD). Not for Medicinal Use. Read the procedure carefully before beginning the protocol. Wear protective gloves/protective clothing/eye protection/face protection. Follow good clinical laboratory practices while handling clinical samples. Standard precautions should be

followed as per established guidelines. Safety guidelines may be referred in safety data sheets of the product.

Limitations

The yield of RNA depends upon the type and the volume of starting material used.

Performance and Evaluation

The yield and efficiency of purification is determined by performing Real- Time PCR.

Quality Control

Each lot of HiMedia's HiPurA® Pre- filled Cartridges for Viral RNA Extraction is tested against predetermined specifications to ensure consistent product quality.

Safety Information

The HiPurA® Pre- filled Cartridges for Viral RNA Extraction is for laboratory use only, not for drug, household or other uses. Take appropriate laboratory safety measures and wear gloves when handling. Not compatible with disinfecting agents containing bleach. Please refer the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

Disposal

User must ensure safe disposal by autoclaving and/ or incineration of used or unusable preparations of 0 t is product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed off in accordance with current laboratory techniques.

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance mail to mb@himedialabs.com.

Symbols

	Manufacturer		Do not use if package is damaged
	Authorized representative in the European Community		Temperature limit
	Date of manufacture (YYYY-MM)		Consult instructions for use
	Use-by date (YYYY-MM)		In vitro diagnostic medical device
	Batch code		CE marking of conformity
	Catalogue number		

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