MB615NB32200 **HiPurA® Pre- filled Plates for Insta NX® Mag32**
(For 200µl sample volume)

Kit Contents

Product Code	Reagents provided	MB615NB32200
		10 NO
PF1B	96 Deep-well Plate_200NB	20 no
LA1096A	Magnetic Rod Tip for Insta NX® Mag32	40 no
DS0192	Carrier RNA	2.5 mg
DS0013	Proteinase K	2.5 ml
DS0042	Elution Solution (RNase Free water)	20 ml
DS1005	Mag Beads	12 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 Plates for Insta NX® Mag32 provides the fastest and easiest way to purify viral RNA for reliable use in amplification technologies. HiPurA® Pre- filled Plates for Insta NX® Mag 32 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 Plates for Insta NX® Mag32

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 (C1) to inactivate RNases and to ensure isolation of intact viral RNA. When Carrier RNA is added to Elution Solution (RNase-free Water), it improves the binding of viral RNA to the magnetic beads especially in the case of low- titre samples, and limits possible degradation of the viral RNA due to any residual RNase activity.

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 Plates for Insta NX® Mag32 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 Carrier RNA (DS0192): at -20°C.**
- **Reconstituted Carrier RNA: -20°C in aliquots to avoid repeated freeze and thaw.**
- **On receipt store Proteinase K (DS0013): at -20°C.**

ISO 9001-2015 CERTIFIED WHO GMP CERTIFIED ISO 13485-2016 CERTIFIED CE

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- **On receipt store Mag Beads (DS1005): at 2-8°C.**

Materials needed but not provided

- RNase- free pipette tips (aerosol barrier recommended)
- Insta NX® Mag32 (LA1096)
- Vortex
- Polypropylene sealing film (Product Code: PR21)
- HiPer® Lock Microcentrifuge Tube, 2.0ml (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. **VIGOROUSLY SHAKE MAGNETIC BEADS BEFORE USE.**

NOTE: MAGNETIC BEADS SHOULD FORM A HOMOGENOUS SUSPENSION. NO PELLETS SHOULD BE OBSERVED. RNA EXTRACTION PROCESS MIGHT GET AFFECTED IF THE SOLUTION IS NOT HOMOGENOUS.

4. **Reconstitute Carrier RNA (DS0192)**

Carrier RNA (DS0192)	Elution Solution (RNase free water) (DS0042)
2.5 mg	2.5 ml

Dissolve Carrier RNA thoroughly by pipetting. We recommend storing the reconstituted Carrier RNA at -20°C in aliquots to avoid repeated freeze and thaw.

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 plates as follows:

1. Switch on the UV light for 10 minutes prior to use.
2. Open the door of Insta NX® Mag32 machine.
3. Select MB61532200 program.
4. Place the magnetic rods tip by sliding onto the machine.

   NOTE: After placing the rods ensure that the rods are properly fixed on their place.

5. Remove the seal from the 96 Deep-well Plate_200NB (PF1B).

   NOTE: Take care while peeling off the seal. Hold the plate firmly by your left hand and then peel off the seal by holding it in your right hand without shaking the plate.

6. Add **50µl of Elution Solution (RNase free water) (DS0042)** into the **6th and 12th column of the prefilled 96 Deep Well Plate_200NB (PF1B) for Insta NX® Mag32.**
7. Add **200µl of sample, 5µl of Proteinase K (DS0013), 5µl of Carrier RNA (DS0192)** in the **1st and the 7th column of the prefilled 96 Deep Well Plate_200NB (PF1B) for Insta NX® Mag32.**

   NOTE: The procedure is optimized for use with 200µl samples but up to 400µl sample can be used.

   NOTE: Reconstitute Carrier RNA (Refer General Preparation Instructions)

8. Add **30µl Mag Beads (DS1005)** in the **4^{tt} and the 10th column of the prefilled 96 Deep Well Plate for Insta NX® Mag32.**

   NOTE: VIGOROUSLY SHAKE MAGNETIC BEADS (DS1005) BEFORE USE TO ENSURE THEY ARE HOMOGENOUS.

9. Slide the tray in outward direction and after adding the above solutions place the plates on the tray of the machine.

   NOTE: 16 samples can be processed in a single 96 Deep-well Plate_200NB (PF1B).

10. Slide the tray of the machine back to its position and close the door of Insta NX® Mag32 machine.

11. Click on the **RUN** option on the home screen.

12. After the run is complete, slide the tray of the machine in outward direction. Remove the 96 Deep Well Plate from the position. Slide the tray back to its position and discard the Magnetic rod's tip for Insta NX® Mag32 (LA1096A). Dispense the eluted RNA from column 6 and column 12 to a new HiPer® Lock Microcentrifuge Tube, 2.0ml (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.

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

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 Plates for Insta NX® Mag32 is tested against predetermined specifications to ensure consistent product quality.

Safety Information

The HiPurA® Pre- filled Plates for Insta NX® Mag32 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.

Please refer disclaimer Overleaf.

Disposal

User must ensure safe disposal by autoclaving and/ or incineration of used or unusable preparations of this 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
	Batch code		Temperature limit
	Date of manufacture (YYYY-MM)		Consult instructions for use
	Use-by date (YYYY-MM)		Catalogue number

Identification No.: PIMB615NB32200
Rev. No.: 04
Date of Issue: 2025-04