



Tata MD Pure MagAuto Viral RNA Extraction Kit

(Instructions For Use)

IVD For *in-vitro* diagnostics
use only

REF SXCOK025-96



96 Well
Plates

15°C to 25°C

INTENDED USE

Tata MD Pure MagAuto Viral RNA Extraction Kit is intended for rapid extraction of viral RNA from fresh or frozen nasopharyngeal (NP) or oropharyngeal (OP) swabs collected in Viral Transport Medium (VTM). The kit is designed for automated RNA extraction systems and has been validated on the HiMedia Insta Nx® Mag96 Nucleic acid extraction system. The extracted viral RNA is suitable for use on RT-PCR and can be used for viral load monitoring, viral detection, viral genotyping and a wide range of other applications.

TEST PRINCIPLE

The Tata MD Pure MagAuto Viral RNA Extraction Kit is designed to extract viral RNA from NP/OP samples collected in VTM. The kit uses the magnetic bead-based method to extract viral RNA for RT-PCR workflows. The extraction process includes an initial lysis step with the lysis buffer to ensure efficient lysis and nucleic acid release from the virus and RNA binding to the surface of the magnetic beads. This is followed by wash step and elution. The bound nucleic acid is purified from salts, proteins and other impurities in the washing step and purified RNA is finally eluted using an Elution Buffer.

Label	Content (96 Rxns)
Lysis Buffer + Mag Beads	1 Plate
Wash Buffer - 1	1 Plate
Elution Buffer	1 Plate
Extraction Comb	1 No.

STORAGE AND STABILITY

The Tata MD Pure MagAuto Viral RNA Extraction Kit components must be stored at room temperature. If properly stored, all kit components are stable until the expiration date printed on the label. However, storage at +2°C to +8°C (refrigerator) or below -20°C will adversely impact nucleic acid extraction due to the formation of precipitates in the solution.

COMPATIBLE INSTRUMENT

The Tata MD Pure MagAuto Viral RNA Extraction Kit has been validated on HiMedia Insta Nx® Mag96 Nucleic acid extraction system. Users might use it on similar other systems upon further validation and as per the manufacturer's recommendation.

ADDITIONAL EQUIPMENT AND REAGENT REQUIRED

- Micropipettes (variable range)
- Micropipette barrier/filter tips
- Vortexer
- Automated RNA extraction system

APPLICATION

The Tata MD Pure MagAuto Viral RNA Extraction Kit is designed to purify intact viral RNA from NP/OP samples collected in VTM. The extracted viral RNA can be used for RT-PCR analysis directly after elution.

The RNA extracted using Tata MD Pure MagAuto Viral RNA Extraction Kit has been validated for Real-time PCR assays. However, to use the kit for any other application, a validation by the user is needed.

SAMPLE MATERIALS

- **Sample Type:** NP/OP swabs in VTM
- **Sample Volume:** 200 µL
- **Sample Storage:** NP/OP swab samples collected in VTM, fresh or stored at 2°C to 8°C for up to 24 hours. For long-term storage, freezing the samples at -20°C is recommended

GENERAL CONSIDERATIONS

Handling Requirements

- Disinfect the Nucleic Acid Extraction System using UV light before use. After the experiment, clean the instrument cabin using 70% ethanol and disinfect it with UV light for about 15 mins
- Magnetic beads may be observed in the extracted nucleic acid. If so, avoid the magnetic beads while transferring the extracted RNA for any downstream process

- Do not mix components from different lots
- After the experiment, all samples and used reagents must be considered potentially infectious and disposed off using safe laboratory procedures and other instruments should be cleaned and disinfected thoroughly

SAFETY INFORMATION

Laboratory Procedures

- Handle all samples as potentially infectious and use safe laboratory procedures
- Wear protective disposable gloves, laboratory coats and eye protection, when handling samples and kit reagents
- Finish each phase of RT-PCR workflow before proceeding to the next. For example, finish RT-PCR sample preparation before starting RT-PCR set-up. Sample preparation, RT-PCR set-up and the RT-PCR run should be performed in separate locations

PROTOCOL

For use on the HiMedia Insta Nx® Mag96 Nucleic acid extraction system.

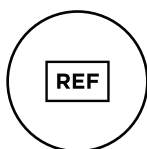
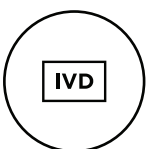
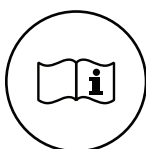


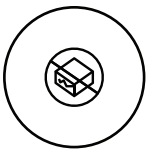

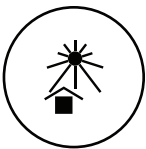

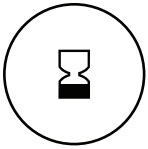
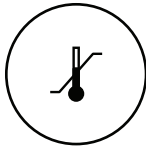


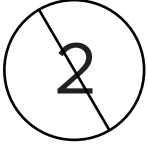
- Select "MB615MA9611" protocol under "Run Prog" in HiMedia Insta Nx® Mag96 Nucleic acid extraction system
- Gently swirl the Lysis Buffer + Mag Beads plate and carefully peel off the seal
- Add 200 µL of VTM sample in the respective wells of the Lysis Buffer + Mag Beads plate
- Place the Lysis Buffer + Mag Beads plate in the 3rd deck position
- Peel off the seal from Wash Buffer plate and place in the 5th deck position
- Peel off the seal from Elution Buffer plate and place in the 8th deck position
- Place the Extraction Comb and plate in 7th deck position
- Select "MB615MA9611" protocol and start the run
- Soon after the run, remove the Elution Buffer plate from the instrument and use the eluted RNA for downstream processes

Note: The purified RNA is ready for immediate use. Alternatively, store the extracted RNA at -80°C for long-term storage.

TROUBLESHOOTING

Observation	Cause	Recommendation
Low nucleic acid purity	<ul style="list-style-type: none"> • Kit stored under non-optimal conditions • Pre-filled plates are exposed to conditions that reduced their effectiveness 	<ul style="list-style-type: none"> • Store kit at +15°C to +25°C at all times upon arrival • Store all pre-filled plates at +15°C to +25°C
Low RNA yield	<ul style="list-style-type: none"> • High levels of RNase 	<ul style="list-style-type: none"> • Be careful to create an RNase-free working environment • Process the sample immediately or store it at -20°C until it can be processed • Use the eluted RNA directly in downstream procedures or store it immediately at -80°C for long-term use

PRODUCT LABEL SYMBOLS REFERENCE

 REF	Catalogue Number	 IVD	<i>In-vitro</i> Diagnostics use only		Instructions For Use	 LOT	Batch Number
	Manufacturer		Do Not Use, if Box Damaged		Date of Manufacturing		Keep Away from Sunlight
	Non-Sterile		Expiry Date		Temperature Limit		Caution
	Number of Reactions		Do Not Re-use				

