

## **Virus Inactivation Transport Medium, VITM**

**2ml: cat # BU983017**

### **Product description**

The existence and efficient identification of the virus depends on quality, transfer, and storage conditions before testing in the laboratory.

ROJE Virus Inactivation Transport Medium is designed for sampling, storage, and transferring clinical samples containing inactivated viruses in health centers, hospitals, and medical laboratories.

### **Medium features**

Each vial contains Hanks buffer medium, phenol red (as PH indicator), virus inactivating agents, and antibiotics.

- Prevent sample drying
- Preservation and stability of the sample for up to 48 hours at refrigerator temperature
- Possibility of long-term freezing

### **Storage and shelf life**

keep the product in 2 to 8 °C. in sterile conditions; the product's shelf life is one year.

### **Intended use**

For sampling, transferring, and inactivating the infected virus samples. Virus Inactivation Transport Medium is an optimized medium with the virus-inactivating agents for transferring viruses—like a swab for the Corona test. This medium is appropriate for preserving virus nucleic acid for RNA isolation. The unique features of this medium include virus-inactivation, lack of influence, and interference with viral RNA isolation steps. After sampling and putting the swab in the medium, the solution could be used as the primary reagent for virus RNA isolation without using lysis solution (BFC in RNJia virus kit). The sample should be transferred to VITM immediately after taking the Dacron swab for the Coronavirus test.

### **Samples to be tested**

Nasal swab, nasal and throat swab, Nasopharyngeal Aspiration, and throat discharge.

### **Warning and Precautions**

- According to the rules of the ministry of health, this solution could be sold only to licensed laboratories for emergency use and In Vitro Diagnosis (IVD) condition only.
- All patients' samples and positive control should be considered potentially infectious.
- Before starting the process, read biosafety instructions for COVID – 19 on the link below:  
<https://www.cdc.gov/coronavirus/2019-nCoV/lab-biosafety-guidelines.html>.
- Every step of the process, such as sampling, storage, transferring, and lab testing, must be compatible with biosafety in molecular biology lab guidelines.
- Dispose of wastes based on biosafety regulations.
- The bench and all lab equipment should be regularly disinfected using 70% Ethanol or 10% Sodium Hypochlorite solution.
- Do not use it If there is evidence of contamination or damage in solutions.
- Avoid gargling this solution.

## stability

The Virus inactivation transport medium is stable until the expiration date is written on the container label.

## Guarantee

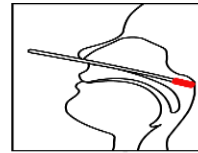
ROJETechnologies guarantee the efficiency of this product. For more information on choosing proper products based on your needs, please contact our technical support team. If any products do not satisfy you, please contact our technical support team for reasons other than misuse. If the problem is due to the manufacturing process, the ROJE team will replace the Kit for you.

## Dear users

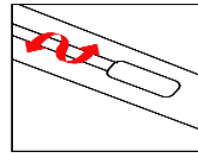
This product is only for experiments and not for commercial use of any kind- No right to resell this kit or any components. For information about our licensing or distributors, contact the ROJE business team.

## Protocol

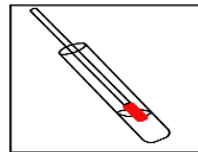
**STEP 1:**  
Sampling



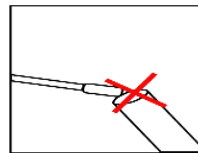
**STEP 2:**  
Nylon or  
Dacron swabs



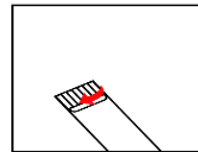
**STEP 3:**  
Immerse the swab  
in VITM



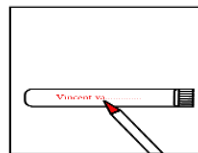
**STEP 4:**  
Avoid touching



**STEP 5:**  
Close the lid



**STEP 6:**  
Write  
patient's information



## Procedure

- The sampling swabs should be made of nylon or Dacron with plastic or aluminum shafts. Cotton swabs are not recommended at all. The swabs should be put in the Virus Inactivation Transport Medium immediately after sampling. The samples should be kept in the medium for at least 30 minutes and be vortexed for 15 to 20 seconds before the isolation is started.
- Avoid touching the borders of the solution container.
- The lid of the sample container should be closed tightly.
- Patient information and the sampling date should be written on sample containers.
- Send the samples to the lab at 2 to 25 °C (considering notified protocols for biosafety).
- Keeping the samples at 2 to 8°C is recommended for delayed transferring to the lab.

- Before isolation, vortex the swab sample put in Virus Inactivation Transport Medium.
- Take 500 µl of the sample, take it in Virus Inactivation Transport Medium, and then add 200 µl of pure ethanol to it.
- Vortex for 15 seconds
- Use Ethanol only because other alcohols reduce the efficiency and RNA purity. Do not use denatured alcohols that do not contain other substances such as methanol.
- Gently transfer all of the aforementioned mixtures to the HiPure RD Column, then place it on the Collection Tube. Be careful not to hit the edge of the column. Centrifuge one minute at (6000×g) 8000 rpm. Discard the liquid under the column and place the column on the same collection as before.

**Tip:** be sure to close the lid of the microtube and centrifuge to prevent contamination between samples.

**Tip:** if the solution does not entirely pass through the HiPure DR Column, centrifuge again at maximum speed until the lysis solution completely pass the HiPure Column.

- Repeat the previous step with the Lysis buffer to pass all Lysis.
- Add 500 µl BWB1 buffer to the HiPure DR Column. Centrifuge at the speed of (6000×g) 8000 rpm for one minute. Discard the lower solution and return HiPure DR Column to the Collection tube.

**Tip:** If the raw material is more than 500 µl, there is no need to increase the BWB1 buffer at this stage.

- Add 500 µl BWB2 buffer to the HiPure DR Column. Centrifuge at the maximum speed of (20,000 ×g) 14000 rpm for one minute.
- Place the HiPure Column on a new Collection and centrifuge at a maximum speed in three minutes, and then discard the underlying fluid collection.

**Tip:** To prevent the presence of inhibitors in the final RNA, the drying step must be completed.







- Place HiPure DR Column on a clean 1.5 ml microtube (not included in the kit) and discard the previous Collection tube. 60 ml that has reached ambient temperature, add to the center of the HiPure DR Column and close the Column lid. Incubate at room temperature for one minute.

- Centrifuge at the speed of (6000×g) 8000 rpm for one minute.

**Tip:** 60 µl of ERR buffer is sufficient to dissolve 90% of viral RNA. Passing two volumes of 40 µl through the ERR buffer increase efficiency by 10%. Buffer volume less than 30 µl reduces the efficiency and increases the final concentration of RNA.

**Tip:** viral RNA lasts for one year at a temperature of -15°C to -30°C or at a temperature of -65°C to -90°C.

## Symbols

Definition	Symbol	Definition	Symbol
Company address		Dangerous chemicals	
Keeping temperature		Production date	
Batch number	<b>LOT</b>	Expiration date	
In vitro diagnostic	<b>IVD</b>	Catalog number	<b>REF</b>
Product volume			

**By ROJE,**

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