### VIRAL TRANSPORT MEDIUM

#### Intended Use

Viral Transport Medium is intended for the collection and transport of clinical specimens containing viruses, chlamydiae, mycoplasmas or ureaplasmas from the collection site to the testing laboratory. This devise includes Viral Transport Medium that is room temperature stable and can sustain viability of organisms.

## **Summary and Principle**

Microxpress® Viral Transport Medium consists of Modified Hank's Balanced Salt Solution supplemented with bovine serum albumin, sucrose, gelatin, gelatin peptone and veal infusion. Phenol red is added as a pH indicator. The medium contains cryoprotectants such as sucrose to ensure viability of organisms through freezing and thawing. Antimicrobial agents are incorporated to minimize commensal bacterial and fungal contamination. The medium is isotonic and non-toxic to host cells.

The successful diagnosis of viral infections by culture is enhanced when the specimen contains as much virus as possible upon collection, is protected from thermal inactivation, and is contained in an effective transport system. Microxpress® Viral Transport Medium is an ideal viral transport medium which possesses characteristics such as, preservation of the activity of the virus even at room temperatures, is nontoxic and has a long shelf life.

## **Formulation**

Microxpress® Viral Transport Medium contains the following components,

Hank's Balanced Salts

Bovine Serum Albumin

Sucrose

Gelatin

Gelatin Peptone

Veal Infusion

Vancomycin

Amphotericin B

Polymyxin B

Phenol Red

pH 7.3 ± 0.3 at 25 °C

# **Storage and Stability**

Store at 15°C - 25°C. Do not freeze or incubate. Keep the reagents away from direct sunlight. The shelf life of the reagents is as per the expiry date mentioned on the reagent vial labels. Do not use beyond expiry date.

## **Additional Material Required**

Standard microbiological supplies and equipment such as loops, incinerators, incubators, centrifuge, Pasteur pipettes, molecular testing kits, serological and biological reagents etc.

## **Specimen Collection and Preparation**

- Once a swab specimen is collected it should be placed immediately into the Viral Transport Media tube.
- Transport the specimen to the laboratory as soon as possible, to maintain optimum viability.
- It is recommended to refrigerate the specimen during transit at 2°C-8°C to ensure best recovery.
- If there will be a long delay before processing, specimens should be frozen at -70°C or transported on dry ice, to prevent loss of infectivity.
- All specimen should be processed as soon as they are received in the laboratory.
- Specimens for viral, chlamydial, mycoplasmal and ureaplasmal investigation should be collected and handled following the standard guidelines.

## **Procedure**

Proper collection of the specimen increases the probability of successful isolation and identification of the infectious organisms. Specimens should be collected a soon as possible after the clinical onset of disease. Highest viral titers are present during the acute illness

<sup>\*</sup> Adjusted to suit performance parameter.

- 1. Peel open the sealed pouch pack and remove swab from the pouch.
- 2. Collect the specimen without breaking the swab.
- 3. Aseptically remove the cap from the tube.
- 4. Insert the swab into the vial containing the medium.
- 5. Break the swab shaft by bending the swab against the rim of the tube at the breakpoint.
- 6. Replace the cap and secure the lid, tightly.
- 7. Record the patient's information on the label.
- 8. Ship the specimen tube at 2°C-8°C in icebox to the laboratory for analysis.

# **Quality Control**

All lots of Microxpress® Viral Transport Medium are tested for microbial contamination, pH and osmolarity of the medium and ability to maintain viability of selected microbial agents of clinical significance.

Appearance: Red coloured, clear solution in tubes.

Final pH at 25 °C:  $7.3 \pm 0.3$  Volume: 3.0 mL-3.4 mL

Osmolality in mOsm/Kg  $H_2O$ : 500 mOsm - 600 mOsm

### **Interpretation of Results**

Accuracy of results depends on proper specimen collection, transportation time and temperature as well as specimen handling in the testing laboratory.

### Limitations

- 1. Condition, timing and volume of specimen collected for culture are significant variables in obtaining reliable culture results. Follow recommended guidelines for specimen collection.
- 2. Repeated freezing and thawing of specimens may reduce the recovery of viable organisms.
- 3. Dacron, rayon or nylon flocked swabs are recommended.
- 4. Calcium alginate or cotton swabs, as well as wooden stick swab, should not be used.

## **Precautions**

- 1. This product is for *in vitro* Diagnostic use only and to be used by trained and qualified professionals.
- 2. Read the instructions carefully before performing the test.
- 3. All laboratory specimens should be considered infectious and handled according to standard precautions.
- 4. Follow State, Local and Institutional guidelines for handling and disposal of Biohazard waste.
- 5. Do not ingest, inhale, or allow to come into contact with skin.
- 6. Do not pre-moisten the applicator before use.
- 7. Do not re-sterilize the swab. Also, do not use if the swab is damaged or broken.
- 8. Do not use if the medium is contaminated.
- 9. All specimens should be shipped in compliance with all the Local, State and hospital guidelines.

#### Reference

- 1. Clinical and Laboratory Standards Institute. 2005. Approved Guideline M29-A3. Protection of laboratory workers from occupationally acquired infections, 3<sup>rd</sup> ed. CLSI, Wayne, Pa.
- 2. Anderson, N.L., *et. al*, Cumitech 3B; Quality Systems in the Clinical Microbiology Laboratory, Coordinating ed., A.S. Weissfeld. American Society for Microbiology, Washington, D.C.
- 3. Jorgensen., et. al, Manual of Clinical Microbiology, American Society for Microbiology, Washington, D.C. Tille, P., et. al, Bailey and Scott's Diagnostic Microbiology, C.V. Mosby Company, St. Louis, MO.
- 4. Clyde, W.A., et. al, 1984. Cumitech 19; Laboratory Diagnosis of Chlamydial and Mycoplasmal Infections, Coordinating ed., W.L. Drew. American Society for Microbiology, Washington D.C.
- 5. Isenberg, H.D. Clinical Microbiology Procedures Handbook, Vol. I, II & III. American Society for Microbiology, Washington, D.C.
- 6. Murray, P.R., E. J. Baron, J. H. Jorgensen, M. A. Pfaller, and R. H. Yolken. 2003. Manual of Clinical microbiology. 8<sup>th</sup> ed. ASM, Washington.
- 7. Isenberg, H. D., 2004. Clinical microbiology procedures handbook, 2<sup>nd</sup> ed. ASM, Washington, DC.
- 8. Data on File: Microxpress®, A division of Tulip Diagnostics (P) Ltd.

# **Product Presentation**

Cat No.	Product	Pack Size
203220100050	Viral Transport Kit I	50 Tests
	Kit consists of 3 mL of Viral Transport Medium in 15 mL screw cap centrifuge	
	tube with conical bottom and sterile Nasopharyngeal swab flocked with nylon	
	microfibers, recommended for collection and transport of viruses.	
203220110050	Viral Transport Kit II	50 Tests
	Kit consists of 3 mL of Viral Transport Medium in 15 mL screw cap centrifuge	
	tube with conical bottom and sterile Throat swab flocked with nylon	
	microfibers, recommended for collection and transport of viruses.	
203220190050		50 Tests
	Kit consists of 3 mL of Viral Transport Medium in 15 mL screw cap centrifuge	
	tube with conical bottom and sterile Nasopharyngeal + Throat swab flocked	
	with nylon microfibers, recommended for collection and transport of viruses.	
203220260050	Viral Transport Kit III (1 mL)	50 Tests
	Kit consists of 1 mL of Viral Transport Medium in 15 mL screw cap centrifuge	
	tube with conical bottom and sterile Nasopharyngeal + Throat swab flocked	
	with nylon microfibers, recommended for collection and transport of viruses.	

#### Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.