Bile Peptone Transport Medium

M481

Intended Use:

Recommended for safe collection, transport and preservation of cholera organisms.

Composition**

Ingredients	g / L
Tryptone	10.000
Sodium chloride	10.000
Sodium taurocholate	5.000
Final pH (at 25°C)	8.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 25.0 grams in 1000 ml purified/distilled water. Dispense into bottles. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If desired, sterile potassium tellurite solution may be added after autoclaving to give a final concentration of 1 in 200,000 to make the medium more selective for the Vibrios.

Principle And Interpretation

Vibrio cholerae is the etiological agent of epidemic and pandemic cholera in humans.*V. cholerae* is a non-halophilic *Vibrio* which cannot grow in media with a concentration of sodium chloride greater than 5-6% and is able to grow in media lacking NaCl (1). Human disease is associated with ingestion of contaminated water or food. *Vibrio* species, like many other gram-negative bacteria, grow in the presence of relatively high levels of bile salts. Bile Peptone Transport medium is a nutritive, selective holding medium for *Vibrio* species (2). It is used as a transport (holding) medium to maintain the viability of *V. cholerae* in stool specimens during delay in transmission to the laboratory.

Tryptone serves as a source of carbon, nitrogen and essential nutrients. Incorporation of sodium taurocholate makes the medium selective for *Vibrios*. Sodium chloride makes the medium selective for the growth of cholera organisms. High alkaline pH is tolerated by *Vibrios* while it is detrimental to most of the accompanying coliforms, therefore making the medium selective. Addition of potassium tellurite further improves the selectivity of the medium.
The sample should be transported immediately to the laboratory. However, if there is to be a delay of more than 6 hours, 1-3 ml of faeces should be added to 10-20 ml of Bile Peptone Transport Medium with tellurite (2).

Type of specimen

Clinical samples - Swabs of stool samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic Use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. The sample should be transported immediately to the laboratory. However, if there is to be a delay of more than 6 hours, 1-3 ml of faeces should be added to 10-20 ml of Bile Peptone Transport Medium with tellurite .

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within theexpiry period when stored at recommended temperature.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Yellow coloured, clear solution without any precipitate

Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 8.5±0.2

pH

8.30-8.70

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth
Vibrio cholerae ATCC 15748	50-100	good-luxuriant
Vibrio fluvialis ATCC 33809 (00137*)	50-100	good-luxuriant
Vibrio vulnificus ATCC 29306	50-100	good-luxuriant

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

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 of in accordance with current laboratory techniques (3,4).

Reference

1. Bruno Gomez-Gil and Ana Roque, Isolation, Enumeration and Preservation of the Vibrionaceae, F.L. Thompson, B. Austin and J. Swings. The Biology of Vibrios. ASM press.
2. Collee J.G., Fraser A. F., Marmion B. P., Simmons A. (Eds) Mackie and McCartney, Practical Medical Microbiology, 1996, 14th edition, Churchill Livingstone.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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IVD *In vitro* diagnostic medical device

CE Marking

10°C 30°C Storage temperature

Do not use if package is damaged

Disclaimer :

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