

TM 304 – BILE PEPTONE TRANSPORT MEDIUM

INTENDED USE

For transporting specimens in hot climates prone to Cholera outbreak.

PRODUCT SUMMARY AND EXPLANATION

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. 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. 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.

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.

COMPOSITION

Ingredients	Gms / Ltr	
Casein enzymic hydrolysate	10.000	
Sodium chloride	10.000	
Sodium taurocholate	5.000	

PRINCIPLE

Casein enzymic hydrolysate 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.

INSTRUCTION FOR USE

- Dissolve 25 grams in 1000 ml distilled water. Dispense into bottles.
- Sterilize by autoclaving at 15 psi 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 *Vibrios*.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow homogeneous free flowing powder.Appearance of prepared medium: Yellow coloured, clear solution without any precipitate.

pH (at 25°C) : 8.5±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
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Vibrio cholerae	15748	50-100	Good-luxuriant	35-37°C	18-48 Hours
Vibrio fluvialis	33809	50-100	Good-luxuriant	35-37°C	18-48 Hours
Vibrio vulnificus	29306	50-100	Good-luxuriant	35-37°C	18-48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

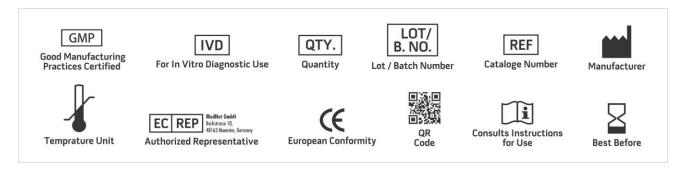
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 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.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For Lab Use Only
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