TM 1194 - GLUCOSE SALT TEEPOL BROTH (DOUBLE PACK)

INTENDED USE

For enrichment of *Vibrio parahaemolyticus* and marine isolates.

PRODUCT SUMMARY AND EXPLANATION

Glucose Salt Teepol Broth is a special media used to enrich *Vibrio parahaemolyticus* from sea foods and also used to enumerate the bacteria by MPN technique. *V. parahaemolyticus* is a gram-negative marine bacterium, which causes seafood-borne gastroenteritis in humans. Fujino and co-workers were the first to isolate *Vibrio parahaemolyticus* as a causative agent of food-borne gastroenteritis, following a large outbreak in Japan.

Weigh 50 gram of seafood sample into a blender. Add 450 ml of PBS (Phosphate Buffer Saline) dilution water and blend for 1 min at 8000 rpm. This constitutes the 1:10 dilution. Prepare 1:100, 1:1000, 1:10000 dilutions or higher if necessary in PBS. Inoculate 3 x 10 ml portion of the 1:10 dilution into 3 tubes containing 10 ml of enrichment broth i.e. Glucose Salt Teepol Broth in 2x concentration. This represents the 1-gram portion. Similarly inoculate 10 ml of single strength enrichment broth as above. If high numbers of *V. parahaemolyticus* are expected, the examination may start at the 1:10 dilution of the product. After overnight incubation of Glucose Salt Teepol Broth at 35 ± 2°C, a loopful of culture from top 1 cm of the broth showing growth is streaked onto TCBS Agar. After overnight incubation at 35 ± 2°C, *V. parahaemolyticus* colonies on TCBS Agar appear as round, green or bluish measuring 2.3 mm in diameter, while *V. alginolyticus* colonies are larger and yellow coloured. These colonies are further identified by biochemical characterization. For biochemical tests in identification of *V. parahaemolyticus, V. cholera*, and *V. vulnificus,* appropriate positive control organisms have to be inoculated. When the blue green colonies are finally identified as *V. parahaemolyticus,* refer to the original positive dilution in the enrichment broth and apply the 3 tube MPN tables for final enumeration of the organism.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Peptone	10.000
Beef extract	3.000
Sodium chloride	30.000
Dextrose (Glucose)	5.000
Methyl violet	0.002
Part II	
Teepol	4.000

PRINCIPLE

Peptone and Beef extract provide essential nitrogenous nutrients and the high percentage of sodium chloride (3%) helps for the better enrichment of halophilic *V. parahaemolyticus*. Glucose is utilized while teepol inhibits the growth of gram-positive organisms. The test sample should be held under moderate refrigeration (about 7 to 10°C) and should be analyzed as soon as possible, after collection as possible. This maximizes the survival and recovery of *Vibrio's* and reduces the tendency for overgrowth by indigenous marine microflora.

INSTRUCTION FOR USE

- Dissolve 48.0 grams of Part I in 1000 ml purified/distilled water containing 4.0 ml of Part II.
- Heat gently to dissolve the medium completely.
- Dispense in tubes as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: Cream to yellow homogeneous free flowing powder Part II: Colourless viscous liquid.

Appearance of prepared medium : Yellow coloured, clear solution with a very slight precipitate.

pH (at 25°C) : 8.8±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Vibrio alginolyticus	17749	50-100	Good-luxuriant	35-37°C	18-24 Hours
Vibrio parahaemolyticus	17802	50-100	Good-luxuriant	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 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

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3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
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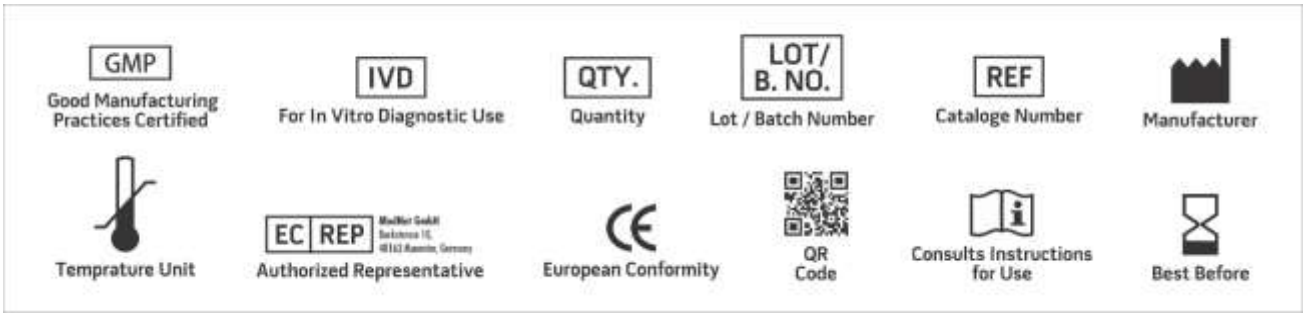
5. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.
6. Thompson F. L., T. Iida and Swings J., 2004, Biodiversity of *Vibrios*, Microbiol. Mol. Biol. Rev., 68: 403-431.



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

***For Lab Use Only**

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