

TM 1101 – TN AGAR

INTENDED USE

For isolation and cultivation of *Vibrios* from food samples.

PRODUCT SUMMARY AND EXPLANATION

Members of the genus *Vibrio* are defined as gram-negative, asporogenous rods that are straight or have a single rigid curve. Three species of *Vibrio*, namely *Vibrio cholerae*, *Vibrio parahaemolyticus* and *Vibrio mimicus* are well documented human pathogens. *V. cholerae*, the type species of the genus *Vibrio* is the causative agent of cholera outbreaks and epidemics. *V. cholerae* can be differentiated from other *Vibrio* species except *V. mimicus*, because of its obligate requirement for sodium ions (Na⁺). TN Agar is formulated as per APHA for cultivation of *Vibrio* species from foods.

Weigh 25 grams of food sample such as seafood or vegetable and blend or cut into small pieces into two jars. To one jar add 225 ml Alkaline Peptone Water and to another jar add 225 ml Gelatin Phosphate Salt Broth. Incubate at 35 ± 2°C for 6 to 8 hours. Transfer a loopful from surface growth of each broth culture to two plated media, i.e. TCBS Agar and Gelatin Phosphate Salt Agar, and incubate at 35 ± 2°C for 18-24 hours. Subculture 3-4 colonies from each plating medium to TN Agar. Growth from TN Agar is further confirmed by inoculating Kligler Iron Agar slants and stabbing the butt. After incubation, *V. cholerae* cultures will have an alkaline (red) slant and an acid (yellow) butt, no gas, and no blackening (H₂S production) in the butt. Presumptive test for suspected strains of *V. cholerae* from TN Agar is carried out by using string test.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Sodium chloride	10.000
Agar	15.000

PRINCIPLE

Casein enzymic hydrolysate provides nitrogenous, carbonaceous compounds, sulphur, vitamin B complex and other essential growth nutrients. Sodium chloride improves the selectivity of the medium.

INSTRUCTION FOR USE

- Suspend 35 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Allow the tubed medium to solidify in an inclined position (long slants).

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light yellow coloured clear to slightly opalescent gel forms in tubes as long slants.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Vibrio cholerae</i>	15748	50-100	Good-luxuriant	35-37°C	18-24 Hours
<i>Vibrio parahaemolyticus</i>	17802	50-100	Good-luxuriant	35-37°C	18-24 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

- Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
- Smith H. L. Jr., 1970, Bull. World Health Organization, 42:817.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Borkstrasse 10, 48163 Moenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

***For Lab Use Only**
Revision: 08 Nov., 2019