

# TM 2134 - HIGH PLATE COUNT AGAR

#### **INTENDED USE**

For the isolation, cultivation and confirmation of salt tolerant Vibrio species.

## PRODUCT SUMMARY AND EXPLANATION

Vibrios are fairly easy to isolate from both clinical and environmental materials, though some species may require growth factors and vitamins. Vibrio parahaemolyticus is the leading cause of bacterial diarrhea associated with the consumption of contaminated food products. Media can be made selective for Vibrios by adding appropriate selective agents. High concentrations of NaCl and alkaline pH have also been used to select certain Vibrio species, based on their ability to grow at pH values above 8.0 and at 3% or higher concentrations of NaCl.

Vibrio 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. High Salt Nutrient Agar is recommended for the isolation, cultivation and confirmation of salt-tolerant Vibrio species in products intended for human consumption or animal feeding stuffs in accordance with ISO Committee under specification ISO/DIS 8914:1990.

#### **COMPOSITION**

Ingredients	Gms / Ltr	
Peptone	5.000	
Meat extract	5.000	
Sodium chloride	30.000	
Agar	15.000	

### **PRINCIPLE**

Meat extract and peptone are sources of carbon, nitrogen, vitamins and minerals. Sodium chloride maintains the osmotic balance of the medium and provides the essential ions.

### **INSTRUCTION FOR USE**

- Dissolve 55 grams in1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and dispense as desired.

# **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 Petri plates.

pH (at 25°C) : 8.5±0.2

# **INTERPRETATION**

Cultural characteristics observed after an incubation.

Microorganism A	Inoculum (CFU/ml)	owth Recov	Incubation rery Temperature	Incubation Period
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Vibrio cholerae	15748	50-100	Good- luxuriant	>=50%	35 - 37°C	18-24 Hours
Vibrio parahaemolyticus	17802	50-100	Good- luxuriant	>=50%	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.

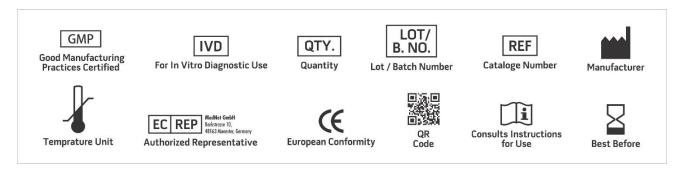
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

## **DISPOSAL**

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

# **REFERENCES**

- 1. Bruno Gomez-Gil and Roque A., Isolation, Enumeration and Preservation of the *Vibrionaceae*, Thompson F. L., Austin B. and Swings J., The Biology of *Vibrios*, ASM press.
- 2. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
- 3. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 8914:1990
- 4. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.
- 5. 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.
- 6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



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

\*For Lab Use Only
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