

# TM 2322 - SALINE LYSINE DECARBOXYLASE MEDIUM

### **INTENDED USE**

Recommended as an identification media to detect lysine decarboxylase activity of Vibrio parahaemolyticus.

### PRODUCT SUMMARY AND EXPLANATION

Vibrio parahaemolyticus is a halophilic estuarine organism. This organism can be isolated from a variety of sea food product and marine environments. The organism, when isolated from fresh sea food, is usually found in low number and is sensitive to refrigeration and heat.

Saline Lysine Decarboxylase Medium is recommended by ISO 8914:1990 for isolating and identification of Vibrio parahaemolyticus from food and animal feed.

Inoculate, suspected colony from Saline Nutrient Agar, just below the surface of Saline Lysine Decarboxylase medium and incubate at 35-37°C for 24 hrs. A purple colour and turbidity, after incubation, indicates a positive reaction.

### **COMPOSITION**

Ingredients	Gms / Ltr	
Yeast Extract	3.000	
L-Lysine monohydrochloride	5.000	
Glucose	1.000	
Sodium chloride	30.000	
Bromocresol purple	0.015	

# **PRINCIPLE**

Yeast extract provide nitrogen compounds, growth factors essential for the growth of Vibrio parahaemolyticus. High sodium chloride content of the medium provides conditions that facilitate easy growth of Vibrio parahaemolyticus. During the initial stages of incubation, fermentation of glucose by the organisms, with acid production results in a colour change of indicator to yellow. On further incubation, if L-Lysine is decarboxylated to cadaverine, there will be an alkaline reaction and indicator colour will then change to purple. If colour remains yellow, the decarboxylase reaction is negative. Yeast extract provide essential growth nutrients. Glucose is the fermentable carbohydrate and bromocresol purple is the pH indicator.

### **INSTRUCTION FOR USE**

- Dissolve 39.01 grams in 1000 ml distilled water.
- Heat, if necessary, to dissolve the medium completely.
- Dispense the medium in quantities of approximately 2ml in test tube (9 mm x 180mm).
- Sterilize by autoclaving at 15 psi pressure (121°C) for 10 minutes.

# **QUALITY CONTROL SPECIFICATIONS**

Appearance of Powder : Light yellow to greenish yellow homogeneous free flowing powder.

Appearance of prepared medium : Purple coloured clear solution forms in tube.

: 6.80 pH (at 25°C)

### **INTERPRETATION**

Cultural characteristics observed after an incubation (Inoculated tubes are overlayed with sterile mineral oil).











Microorganism	ATCC	Inoculum (CFU/ml)	Lysine decarboxylation	Incubation Temperature	Incubation Period
Vibrio parahaemolytics	17802	50-100	Positive (Purple colour with turbidity)	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. International Organization for Standardization (ISO),8914:1990,



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

\*For Lab Use Only
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