Technical Information

Saline Lysine Decarboxylase Medium

Product Code: DM 2778

Application: - Saline Lysine Decarboxylase Medium is used for isolation and identification of *Vibrio parahaemolyticus* on the basis of lysine decarboxylation.

Composition**

Ingredients	Gms / Litre
Yeast Extract	3.000
L-Lysine monohydrochloride	5.000
Glucose	1.000
Sodium chloride	30.000
Bromocresol purple	0.015
pH after sterilization (at 25°C)	6.80

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Saline Lysine Decarboxylase Medium is recommended by ISO 8914:1990 (1) for isolating and identification of *Vibrio parahaemolyticus* from food and animal feed.

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.

Yeast extract supply 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 supply essential growth nutrients. Glucose is the fermentable carbohydrate and bromocresol purple is the pH indicator.

Inoculate, suspected colony from Saline Nutrient Agar (DM2776), just below the surface of Saline Lysine Decarboxylase medium and incubate at 35-37ºC for 24 hrs. A purple colour and turbidity, after incubation, indicates a positive reaction.

Methodology

Suspend 39.01 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & 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 lbs pressure (121°C) for 10 minutes.

Quality Control

Appearance

Light yellow to greenish yellow homogeneous free flowing powder.

Colour and Clarity

Purple coloured clear solution forms in tube.

Reaction

Reaction of 3.9% w/v aqueous solution after sterilization at 25°C. pH : 6.80

Cultural Response

DM2778: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours. (Inoculated tubes are overlayed with sterile mineral oil).

Organism	Inoculum (CFU)	Lysine decarboxylation
Vibrio parahaemolyticus ATCC 17802	50-100	Positive (Purple colour with turbidity)

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.
Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. International Organization for Standardization (ISO),8914:1990,

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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