Saline Nutrient Agar

M1776

Saline Nutrient Agar is used for the cultivation of *Vibrio parahaemolyticus* from food products or animal feeding products.

Composition**

Ingredients	Gms / Litre
Peptone	5.000
Meat extract	3.000
Sodium chloride	30.000
Agar	15.000
pH after sterilization (at 25°C)	8.50±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 53.0 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour in sterile Petri plates.

Principle And Interpretation

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 Nutrient Agar is recommended by ISO 8914:1990 (1) for isolating and enumerating *Vibrio parahaemolyticus* from food and animal feed.

Peptone and meat extract provide nitrogen compounds, growth factors and vitamins for the growth of *Vibrio parahaemolyticus* . High sodium chloride content and alkaline pH of the medium provides conditions that facilitate easy growth of *Vibrio parahaemolyticus* ,while restricting the growth of most gram-negative microorganisms.

For isolation and confirmation of *Vibro parahaemolyticus*, five typical colonies from Thiosulfate Citrate Bile Sucrose Agar (TCBS) or Triphenyltetrazolium Chloride Soya Tryptone Agar (TSAT) are subculture onto Saline Nutrient Agar followed by biochemical confirmation.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium
Light yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 5.3% w/v aqueous solution after sterilization at 25°C. pH : 8.5 ±0.2

pH
8.30 - 8.70

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18- 24 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery

Cultural Response

Vibrio parahaemolyticus ATCC 17802	50-100	good-luxuriant	>=70%
Vibrio chlorae ATCC 15748	50-100	good-luxuriant	>=70%
Escherichia coli ATCC 25922	50-100	good-luxuriant	>=70%
Enterobacter aerogenes ATCC 13048	50-100	good-luxuriant	>=70%

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1.Indian Standard, Microbilogy- General Guidance for the Detection of Vibrio parahaemolyticus. ISO 8914:1990.

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