

TECHNICAL DATA SHEET

Saline Nutrient Agar

Principle

Saline Nutrient Agar is recommended by ISO 8914:1990 for isolating and enumerating *Vibrio parahaemolyticus* from food and animal feed. The media is composed of the peptone, meat extract (equivalent to beef extract), sodium chloride and agar. Peptone and meat extract provide ample amount of the nitrogen, carbon, essential and non-essential amino acids, along with trace minerals. Sodium chloride maintains the osmotic equilibrium of the medium. Agar is solidifying agent. 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 confirmation the isolated colonies are re-inoculated on Thiosulfate Citrate Bile Sucrose Agar (TCBS) or Triphenyltetrazolium Chloride Soya Tryptone Agar (TSAT) are subculture onto Saline Nutrient Agar followed by biochemical confirmation.

Use: For isolation and cultivation of *Vibrio parahaemolyticus* from food products or animal feeding products.

Contents*

Ingredients	Gram/Litre
Peptone	5.000
Meat extract #	3.000
Sodium chloride	30.000
Agar	15.000
pH at 25°C	8.5 ±0.2

* Formula adjusted for optimum performance and parameters # Equivalent to Beef Extract

Directions: Dissolve 53.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45°C and distribute aseptically in desired. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Agricultural, food and animal feed samples etc.

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ISO 9001-2008 Certified Company

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Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Beige colored free flowing, homogeneous powder
Reaction of 5.3% solution	8.5 $\pm$ 0.2 at 25 °C
pH	8.30- 8.70
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Pale yellow colored opalescent gel
Growth Promotion properties	Best at $\leq$ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at $\leq$ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Cultural characteristics observed after incubation at 35 $\pm$ 2°C for 18- 24 hours.

Organism	ATCC	Inoculum	Growth	Recovery
<i>Vibrio parahaemolyticus</i>	17802	50-100	Luxurious	$\geq$ 70%
<i>Vibrio cholera</i>	14035	50-100	Luxurious	$\geq$ 70%
<i>Escherichia coli</i>	8739	50-100	Luxurious	$\geq$ 70%

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Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.

Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. Indian Standard, Microbiology- General Guidance for the Detection of *Vibrio parahaemolyticus*. ISO 8914:1990.

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