Technical Information

Vibrio Parahaemolyticus Sucrose MiVeg Agar

Product Code :VM2153

Application:- Vibrio Parahaemolyticus Sucrose MiVeg Agar is used for the isolation and enumeration of *Vibrio parahaemolyticus* from sea foods.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate No. 1	5.0
MiVeg hydrolysate	5.0
Yeast extract	7.0
Sucrose	10.0
Sodium chloride	30.0
Synthetic detergent No. I	1.5
Bromo thymol blue	0.025
Agar	15.0
Final pH (at 25°C)	8.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Vibrio Parahaemolyticus Sucrose MiVeg Agar is prepared by adding vegetable peptones in place of animal based peptones thereby making the medium free from BSE/TSE risks. Vibrio Parahaemolyticus Sucrose MiVeg Agar is the modification of Vibrio Parahaemolyticus Sucrose Agar (VPSA) i.e., is recommended by APHA (1) for isolating and enumerating *Vibrio parahaemolyticus* from sea foods. It is a differential medium (and also selective to some extent) that differentiates *Vibrio parahaemolyticus* from other marine *Vibrios* species.

Samples under examination are firstly diluted and blended with sterile MiVeg Peptone Tween Salt Diluent (prepared by adding 1 gm of MiVeg peptone nd 10gm of Tween 80 in 1000 of distilled water and autoclaved at 121°C for 15 mins) is filtered through HGMF using sterile diluent as a carrier. HGMF is then aseptically transferred onto the Tryptone Soya MiVeg Agar w/ Magnesium Sulphate (TSAMS) plates and incubated for upto 4 hours at 35°C. HGMF is then transferred from TSAMS to the dry VPS MiVeg Agar plate and incubated for 18 - 20 hours at 42°C.

MiVeg hydrolysate No.1, MiVeg hydrolysate and yeast extract supples all the necessary nitrogen compounds, growth factors and vitamin B complex that suppress the growth of *Vibrio parahaemolyticus*. Sucrose is the fermentable carbohydrate whereas Bromo thymol blue is the pH indicator. Synthetic detergent No. 1 inhibits other contaminating gram- positive bacteria. High pH and salanity of the medium supports the luxuriant growth of marine *Vibrio* and allows easy recovery of the organism respectively. *Vibrio parahaemolyticus* ferment sucrose and forms green to blue colonies.

Methodology

Suspend 73.52 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Dispense into sterile petri plates.

Quality Control

Physical Appearance

Yellow coloured, may have slightly greenish tinge,homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Reaction

Reaction of 7.35% w/v aqueous solution is pH 8.6 ± 0.2 at 25°C.

pH Range

8.4-8.8

Colour and Clarity of prepared medium

Blue coloured, clear to slightly opalescent gel forms in petri plates.

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 42°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Staphylococcus aureus (25923)	10^2-10^3	inhibited	0%	-
Vibrio parahaemolyticus (17802)	10^2-10^3	luxuriant	>50%	blue-green

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 day.

Further Reading

1. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.

Disclaimer :

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