Technical Information

Cholera MiVeg Medium Base

Product Code : VM1558

Application:- Cholera MiVeg Medium Base is a selective medium used for the isolation of *Vibrio* species from specimens grossly contaminated with *Enterobacteriaceae*

Composition

Ingredients	Gms / Litre
MiVeg peptone	10.0
MiVeg extract	10.0
Sucrose	10.0
Sodium lauryl sulphate	0.1
Sodium chloride	20.0
Sodium carbonate	5.0
Agar	10.0
Final pH (at 25°C)	8.5±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Cholera MiVeg Medium Base is prepared by using MiVeg peptone and MiVeg extract instead of animal based peptone & Beef extract respectively which makes the medium BSE/TSE risks free. This medium is the modification of Cholera Medium Base which is based on the formulation described by Felsenfeld and Watanabe (1) for the isolation of *Vibrio cholerae* and similar *Vibrios* from specimens contaminated with *Enterobacteriaceae*. It is a selective medium used for the isolation of *Vibrio* species from specimens contaminated with enteric bacteria.

Ingredients MiVeg extract and MiVeg peptone in the medium supplies nitrogenous nutrients. Sucrose serves as the fermentable carbohydrate source for the metabolism of *Vibrios*. By adding blood it becomes extra nutritional for growing *Vibrios*. Sodium lauryl sulphate inhibits many contaminants. Potassium tellurite is a selective and differential agent which inhibits many gram -positive bacteria and get reduced by *Vibrio* form grey to black coloured colonies. Alkaline pH of medium and sodium chloride selctively favours growth of *Vibrio* species.

Methodology

Suspend 65.1 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Cool to 70°C and add 2 ml of a sterile 1% Potassium Tellurite solution (MS2052) and 5 ml of sterile defibrinated blood. Maintain at 70°C for a few minutes. Cool to 50°C and pour into sterile petri plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.0% Agar gel.

Colour and Clarity of prepared medium

Basal medium forms yellow coloured slightly opalescent gel. With addition of Potassium tellurite and blood upon heating brownish red opalescent gel forms in petri plates.

Reaction

Reaction of 6.5 % w/v aqueous solution pH: 8.5 ±0.2 at 25°C

pH range

8.3-8.7

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18 - 24 hours with added 1% Potassium Tellurite Solution (MS2052) and sterile defibrinated blood.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony	Recovery
Bacillus subtilis (6633)	10^2-10^3	inhibited	-	0%
Escherichia coli (25922)	10^2-10^3	inhibited	-	0%
Proteus mirabilis (25933)	10^2-10^3	inhibited	-	0%
Pseudomonas aeruginosa (27853)	10^2-10^3	inhibited	-	0%
Vibrio cholerae (15748)	10^2-10^3	luxuriant	grey	>50%
Vibrio parahaemolyticus (17802)	10^2-10^3	luxuriant	light grey	>50%

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 days.

Further Reading

1. Felsenfeld O. and Watanabe Y., 1 958, U.S. Armed Forces Med. J., 9(7):975.

Disclaimer :

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