Technical Information

Brilliant Green MiVeg Agar

Product Code : VM1059

Application:- Brilliant Green MiVeg Agar is recommended for differentiation and enumeration of the coliform bacteria in water and wastewater

Composition

Ingredients	Gms / Litre
MiVeg peptone	8.25
Lactose	1.9
Sodium sulphite	0.205
Ferric chloride	0.0295
Monopotassium phosphate	0.0153
Erioglaucine	0.0649
Basic fuchsin	0.0776
Synthetic detergent No. II	0.00295
Brilliant green	0.0000295
Agar	10.15
Final pH (at 25°C)	6.9±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Brilliant Green MiVeg Agar is prepared by using MiVeg peptone and synthetic detergent No. II inplace of peptic digest of animal tissue & oxygall respectively which makes the medium free from BSE/TSE risks. This medium is the modification of Brilliant Green Bile Agar originally formulated as solid medium by Nobel and Tonney (1) for the direct plating of materials of sanitary importance for enumeration of coliform bacteria. This medium is useful in selectively isolating *Salmonella* species from other coliform bacteria.

The combination of brilliant green and synthetic detergent No. II makes this medium highly selective for coliforms, which inhibits most of gram-positive and some gram-negative bacteria. Erioglaucine and basic fuchsin together work as pH indicator of the medium. At neutral pH, colour of the medium is blue while acid production from lactose turns the medium pink and colonies appear pink to deep red depending on the pH change. Monopotassium phosphate maintains the buffering system of the medium. Colonies of coliform bacteria are deep red surrounded by a pink halo against blue background of the medium, while *Salmonella* species, which do not ferment lactose, produce colourless to light pink colonies. It is recommended that the medium be should be prepared fresh before use and when necessary to store the medium, it should be kept in dark. This medium is light sensitive, particularly to direct sunlight, which will exhibit a decrease in the productivity of the medium and also colour may change from deep blue to purple or red.

Methodology

Suspend 20.7 grams of powder media in 1000 ml purified/distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For plating 10 ml quantities of water samples prepare the medium in double strength.

Caution: Basic Fuchsin is a potential carcinogen and care should be taken to avoid inhalation of the powdered dye and contamination of the skin.

Quality Control

Physical Appearance

Light purple coloured, homogeneous, free flowingpowder

Gelling

Firm, comparable with 1.0% Agar gel.

Colour and Clarity of prepared medium

Bluish purple coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 2.07 % w/v aqueous solution pH: 6.9±0.2 at 25°C

pH range

6.7-7.1

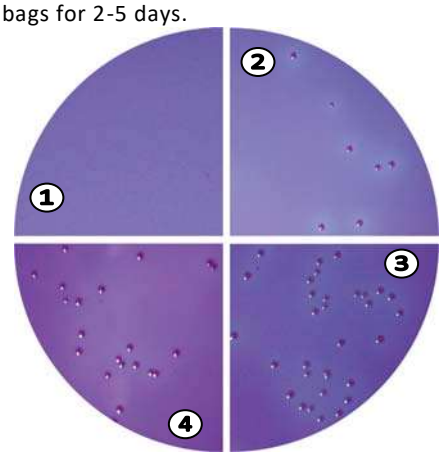
Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
Enterobacter aerogenes (13048	10^2-10^3	luxuriant	Pink	>50%
Escherichia coli (25922)	10^2-10^3	luxuriant	Deep red	>50%
Salmonella serotype Enteritidis (13076)	10^2-10^3	luxuriant	Colourless-light pink	>50%
Staphylococcus aureus (25923)	10^2-10^3	inhibited	-	0%

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.



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1.Control
2.Escherichia coli
3.Salmonella serotype Enteritidis
4.Enterobacter aerogenes

Further Reading

1. Noble and Tonney, 1935, J. Am. WaterWorks Assoc., 27:108.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
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