Technical Information

KF Streptococcal MiVeg Agar Base

Product Code :VM1248

Application:- KF Streptococcal MiVeg Agar Base is recommended for selective isolation and enumeration of faecal *Streptococci* in surface water, by direct plating or by membrane filter method.

Composition

Ingredients	Gms / Litre
MiVeg special peptone	10.0
Yeast extract	10.0
Sodium chloride	5.0
Sodium glycerophosphate	10.0
Maltose	20.0
Lactose	1.0
Sodium azide	0.4
Agar	20.0
Final pH (at 25°C)	7.2 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

KF Streptococcal MiVeg Agar Base is prepared by adding MiVeg special peptone in place of Peptone special thus making the medium is free from BSE/TSE risks. The Kenner - Faecal (KF) MiVeg Medium is the modification of the Kenner-Faecal (KF) Medium which was developed by Kenner et al (1) for detecting *Streptococci* in surface water by direct plating or by membrane filtration method. Like conventional medium, this medium is recommended for enumeration of faecal streptococci found in food and water (2,3).

MiVeg special peptone and yeast extract supplies nitrogen, carbon, sulphur, amino acids, vitamins and trace elements to the faecal *Streptococci*. Lactose and maltose serve as energy sources of the medium. Sodium azide inhibit gram-negative bacteria. 2,3,5-Triphenyl Tetrazolium Chloride reduced to insoluble formazan by actively metabolizing cells, resulting pink or red colonies. Many strains of *Streptococcus bovis* and *Streptococcus equinus* are inhibited due to sodium azide (3).

Methodology

Suspend 76.4 grams of powder media in 1000 ml distilled water. Rehydrated contents of 1 vial of Bromo Cresol Purple (MS2093) added to the medium. Mix well and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool to 50°C and aseptically add 10 ml of 1% Triphenyl Tetrazolium Chloride (TTC, MS2057) to the sterile medium. Mix well before pouring.

WARNING : Sodium Azide has a tendency to form explosive metal azides with plumbing materials thus it is advisable to use enough water to flush off the disposables.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

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

Reaction

Reaction of 7.64% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

pH Range

7.0-7.4

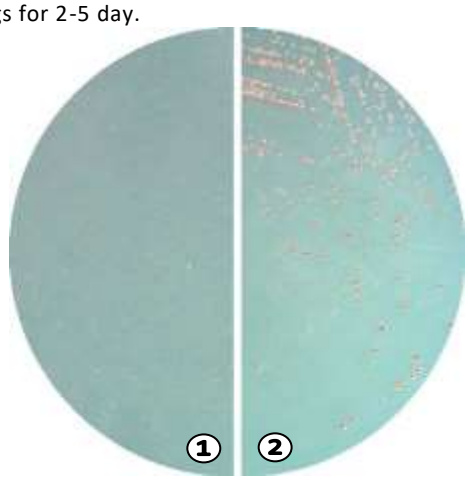
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours, on addition of (MS2057) and (MS2093).

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
Enterobacter aerogenes (13078)	30-200	inhibited	0%	_
Enterococcus faecalis (29212)	30-200	luxuriant	>70%	red-maroon
Escherichia coli (25922)	30-200	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 day.



VM1248 KF Streptococcal MiVeg Agar Base
(Against dark background)
1. Control
2. *Enterococcus faecalis*

Further Reading

1. Kenner, Clark and Kabler, 1961, Appl. Microbiol., 9:15.
2. Bordner and Cointer, 1978, Microbiological methods for monitoring the environment, water and wastes, The environmental protection Agency, Cincinnati, Ohio.
3. Vanderzant C and Splittstoesser DF (Eds.), 1992, Compendium of Methods For The Microbiological Examination of Foods, 3rd ed., APHA, Washington, D.C.

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.
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