Technical Information

Fluid Lactose MiVeg Medium

Product Code :VM1026

Application:- Fluid Lactose MiVeg Medium is recommended as a pre-enrichment medium for the detection of coliform bacteria in water, dairy products and food stuff and also for the study of lactose fermentation by common bacteria.

Composition

Ingredients	Gms / Litre
MiVeg peptone No. 2	5.0
MiVeg extract	3.0
Lactose	5.0
(Final pH (at 25°C)	6.9±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Fluid Lactose MiVeg Medium is prepared by using MiVeg peptone No.2 and MiVeg extract which are free of BSE/TSE risks. Fluid Lactose MiVeg Medium is the modification of Fluid Lactose Medium formulated in accordance with the recommendations of APHA and can be used for testing water (1), dairy products (2) and foods (3).
MiVeg extract and MiVeg peptone No. 2 supplies necessary nutrients for growth of test organisms. Lactose act as a fermentable carbohydrate. Growth with gas formation is a presumptive test for coliforms. Whenever there is larger inocula, multiple strength lactose broth is used. The final concentration of the components is maintained at a constant level (13 g/lit).
After incubation at 35 ± 2°C for 24 ± 2 hours, examine tubes for turbidity and gas production in the Durham's tube. If no gas has been formed reincubate and observe after 48 ± 3 hours. Turbidity of the medium accompained by formation of gas is a positive presumptive test for the presence of coliforms in the sample.

Methodology

Suspend 13 gram of powder media in 1000 ml distilled water. Mix thoroughly and distribute into test tubes containing inverted Durham's tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. The concentration of medium is adjusted in accordance with sample size.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate.

Reaction

Reaction of the medium 1.3 % w/v aqueous solution is pH 6.9 ± 0.2 at 25°C.

pH range

6.7-7.1

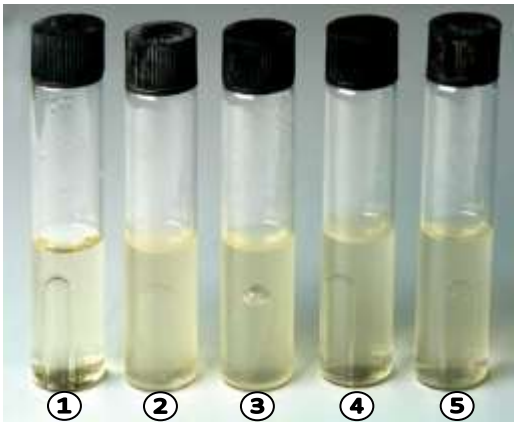
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for18 - 24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Gas
Enterobacter aerogenes (13048)	10^2-10^3	good-luxuriant	+
Enterococcus faecalis (29212)	10^2-10^3	good-luxuriant	_
Escherichia coli (25922)	10^2-10^3	good-luxuriant	+
Pseudomonas aeruginosa (27853)	10^2-10^3	good-luxuriant	_

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. *Enterobacter aerogenes*
3. *Escherichia coli*
4. *Pseudomonas aeruginosa*
5. *Enterococcus faecalis*

Further Reading

1. Eaton A.D., Clesceri L.S. and Greenberg A.E., (Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st ed, APHA, Washington,DC.

2. Standard Methods for the Examination of Dairy Products. 17th Edition, 2004Edited by H. Michael Wehr and Joseph H.Frank.

3. Downes FP and Ito K (Eds.), 2001, Compendium of Methods For TheMicrobiological Examination of Foods, 4th 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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