Technical Information

Litmus Lactose MiVeg Agar

Product Code : VM1507

Application:- Litmus Lactose MiVeg Agar is used for the isolation of enteric bacteria.

Composition

Ingredients	Gms / Litre
MiVeg peptone	23.0
Synthetic detergent No. V	2.0
MiVeg extract	5.0
Sodium chloride	5.0
Lactose	20.0
Litmus	0.5
Agar	15.0
Final pH (at 25°C)	7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Litmus Lactose MiVeg Agar is prepared by using vegetables peptones instead of animal based peptones thus making the medium free from BSE/TSE risks. Litmus Lactose MiVeg Agar is the modification of Litmus Lactose Bile Salt Agar formulated by Wurtz (1) for the isolation of enteric bacteria. It can be successfully used in place of MacConkey MiVeg Agar as it efficiently serves the purpose of MacConkey MiVeg Agar. Synthetic detergent No. V in the medium inhibits gram-positive microorganisms. Lactose fermenting coliform enteric bacteria produce acid. Litmus an amphoteric dye, turns red at acidic pH.

MiVeg peptone and MiVeg extract provide necessary nutrients like nitrogen compounds required for the optimum growth of enteric bacteria. Sodium chloride maintains the osmotic balance of the medium.

Methodology

Suspend 70.5 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Light purple coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Light purple coloured slightly opalescent gel forms in petri plates may have black particles.

Reaction

Reaction of 7.05% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

pH Range

7.2 - 7.6

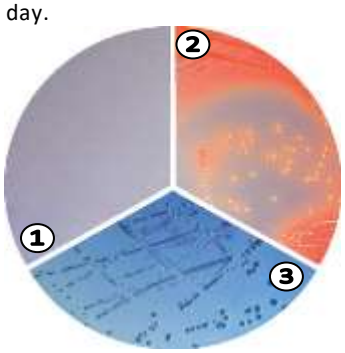
Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Enterococcus faecalis (29212)	10^2-10^3	inhibited	>0%
Escherichia coli (25922)	10^2-10^3	luxuriant	>50%
Proteus mirabilis (25933)	10^2-10^3	luxuriant (no swarming)	>50%
Pseudomonas aeruginosa (27853)	10^2-10^3	luxuriant	>50%
Salmonella serotype Typhi (6539)	10^2-10^3	luxuriant	>50%
Salmonella serotype Typhimurium (14028)	10^2-10^3	luxuriant	>50%
Shigella flexneri (12022)	10^2-10^3	luxuriant	>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 day.



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1. Control
2. *Escherichia coli*
3. *Proteus mirabilis*

Further Reading

1. Wurtz, 1897, Technique Bacteriologique Paris, Masson.

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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