

Technical Information

Drigalski Litmus Lactose MiVeg Agar

Product Code : VM1659

Application:- Drigalski Litmus Lactose MiVeg Agar is used as a non-selective differential medium for the detection of enteric pathogens

Composition**

Ingredients	Gms / Litre
MiVeg peptone	7.0
Sodium chloride	5.0
Lactose	15.0
Litmus	1.2
Agar	13.0
Final pH (at 25°C)	7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

This medium is prepared by using MiVeg peptone in place of Peptic digest of animal tissue, thus making the medium free from BSE/TSE risks. Drigalski Litmus Lactose MiVeg Agar is the modification of Drigalski Litmus Lactose Agar formulated as per Drigalski and Conrad (1) as a differential medium for the detection of enteric pathogens from water, meat, milk and other food materials.

MiVeg peptone in the medium supplies essential nitrogenous nutrients to the test organisms. The medium contains lactose as the source of carbon and fermentable carbohydrate. Litmus is the pH indicator of the medium. Lactose fermenters produce acid and thus change the colour of litmus to red, forming red colonies. Lactose non-fermenters develop blue colonies on the medium. Inoculate culture from primary fermentation tubes showing gas either by four-quadrant streaking on the medium or by serial dilution and pour plate technique (2).

Methodology

Suspend 41.2 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Yellow with bluish tinge coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.3% Agar gel.

Colour and Clarity of prepared medium

Purplish blue coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.12% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C

pH range

7.2-7.6

Cultural Response/Characteristics

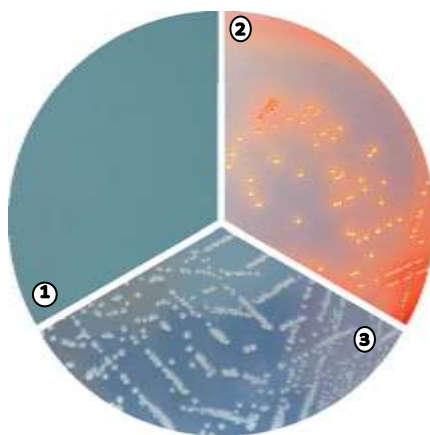
Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours .

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	Fair -good	>50%	Red -blue
<i>Escherichia coli</i> (25922)	10 ² -10 ³	luxuriant	>70%	Red
<i>Salmonella</i> serotype Typhimurium (14028)	10 ² -10 ³	luxuriant	>70%	Blue
<i>Shigella flexneri</i> (12022)	10 ² -10 ³	luxuriant	>70%	Red
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	Good	>50%	Red-Blue

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° in sealable plastic bags for 2-5 days.



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1. Control
2. *Escherichia coli*
3. *Salmonella* serotype Typhimurium

Further Reading

1. Drigalski V. and Conrad H., 1902, Z. Hyg. Infektionskr., 39:283.
2. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification Maintenance of Medical Bacteria, Volume I, Williams and Wilkins, Baltimore

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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