

## Technical Information

### B.T.B. Lactose MiVeg Agar, Modified

#### Product Code : VM2081

**Application:-** B.T.B. Lactose MiVeg Agar, Modified is a selective media & recommended for differentiation of lactose fermenting and non-fermenting bacteria belonging to *Enterobacteriaceae*.

#### Composition

Ingredients	Gms / Litre
MiVeg peptone	3.5
MiVeg hydrolysate	3.5
Sodium chloride	5.0
Lactose	15.5
Bromo thymol blue	0.04
Agar	13.0
Final pH ( at 25°C)	7.0±0.2

\*\* Formula adjusted, standardized to suit performance parameters.

#### Principle & Interpretation

B.T.B. Lactose MiVeg Agar, Modified is free from BSE/TSE risks as it is prepared from MiVeg peptone and MiVeg hydrolysate. This medium is the modification of Lactose Blue Agar which is used for differentiating lactose fermenting and non-fermenting bacteria belonging to the family *Enterobacteriaceae*.

MiVeg hydrolysate and MiVeg peptone supplies essential nutrients for bacterial metabolism. Lactose provides a fermentable carbohydrate source for the enteric bacteria. Bromo thymol blue is a pH indicator for indicating the acid production due to carbohydrate fermentation. At acidic pH, colour of the media changes green to yellow including bacterial growth while at alkaline pH condition it will change to blue. Addition of 0.28 g/l metachrome yellow suppresses the swarming of *Proteus species* as recommended by Winkle(1) in the conventional medium.

#### Methodology

Suspend 40.54 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

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

##### Gelling

Firm, comparable with 1.3% Agar gel.

##### Colour and Clarity of prepared medium

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

##### Reaction

Reaction of 4.05% w/v aqueous solution is pH 7.0± 0.2 at 25°C.

##### pH range

6.8-7.2

##### Cultural Response/Characteristics

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

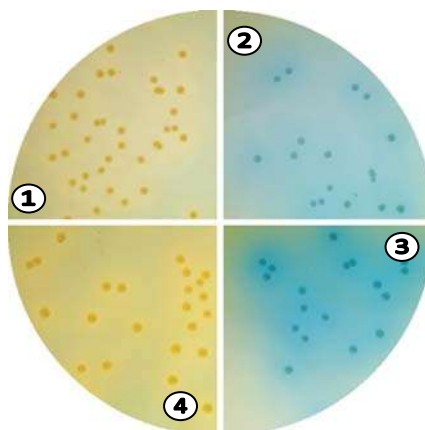
Organisms (ATCC)	Inoculums(CFU)	Growth	Recovery	Colour of colony
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	luxuriant	>70%	Yellow,opaque

				colonies
<i>Salmonella</i> serotype Enteritidis (13076)	$10^2$ - $10^3$	luxuriant	>70%	Bluish colonies
<i>Salmonella</i> serotype Typhi (6539)	$10^2$ - $10^3$	luxuriant	>70%	Bluish colonies
<i>Staphylococcus aureus</i> (25923)	$10^2$ - $10^3$	Good-luxuriant	>70%	Deep yellow

## 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. *Staphylococcus aureus*
2. *Salmonella* serotype Typhi
3. *Salmonella* serotype Enteritidis
4. *Escherichia coli*

## Further Reading

1. Winkle S., 1947, Zbl. Bakt. I. Orig., 152:103.

## 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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