

## Product Data Sheet

### **B.T.B. LACTOSE AGAR, MODIFIED**

**Product No.** GB-DCM-00313-1A

### **INTENDED USE**

For differentiating lactose positive and lactose negative colonies of Enterobacteriaceae.

### **PRODUCT SUMMARY**

Reactions with lactose are of great practical importance for the primary isolation of Enterobacteria from clinical specimens. The specimens e.g. faeces is usually plated on a lactose-containing medium on which lactose fermenters and lactose non fermenters form coloured and pale colonies respectively due to the dye incorporated. This procedure makes an immediate presumptive distinction between colonies of the true intestinal pathogens possible. Salmonella and Shigella, do not ferment lactose while the common intestinal commensals, Escherichia and Klebsiella, which do ferment lactose. Lactose Blue Agar is used for differentiating lactose fermenting and non-fermenting bacteria belonging to the family Enterobacteriaceae.

### **Product Specifications**

<b>Ingredients</b>	<b>Gms / Ltr</b>
Peptone	3.500
Tryptone	3.500
Sodium chloride	5.000
Lactose	15.500
Bromo thymol blue	0.040
Agar	13.000

### **PRINCIPLE**

Tryptone and peptone provide essential nutrients for bacterial metabolism. Lactose provides a fermentable carbohydrate source for the enteric bacteria. Bromo thymol blue is the pH indicator for indicating acid production due to carbohydrate fermentation. The dye turns yellow at acidic pH and imparts yellow colour to the colony. Alkalinization produces a blue coloration.



### INSTRUCTION FOR USE

- Dissolve 40.54 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to greenish yellow homogeneous free flowing powder

Appearance of prepared : Green coloured, clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.0± 0.2

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	≥70%	35-37°C	18-24 Hours
Salmonella Enteritidis	13076	50-100	Luxuriant	≥70%	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	≥70%	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Good-Luxuriant	≥50%	35-37°C	18-24 Hours

### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**This product is for research use only.**