Bromo Cresol Purple Agar w/ Lactose

M1905

Intended Use:

Recommended for the isolation of coliforms

Composition**

Ingredients	Gms / Litre
Lactose	10.000
Peptone mixture	5.000
HM peptone B #	3.000
Bromocresol purple	0.025
Agar	10.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters
- Equivalent to Beef extract

Directions

Suspend 28.03 grams in 1000 ml Purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Enteropathogens are well known to be transmitted via contaminated food or water. They are often implicated in major foodborne outbreaks worldwide. The common implications are gastroenteritis, vomiting, diarrhea, nausea, malaise, fever in humans. Enterotoxins produced by members of *Enterobacteriaceae* are important in the pathogenesis. *Salmonella* causes enteric fevers and food poisoning in humans. The most frequent sources of *Salmonella* food poisoning are poultry, meat, milk and milk products. Even salads and uncooked vegetables may cause infection if contaminated. Similarly *Vibrio* can enter the human host through contaminated foods or water, causing intestinal infections and Cholera.

Bromo Cresol Purple Agar w/Lactose is a non-inhibitory medium used for detection and isolation of coliforms and in differential study based on lactose fermentation. All coliforms ferment lactose with acid and gas production.The lactose fermenting organism changes the colour of the medium from purple to yellow. Peptone mixture and HM peptone B provide nitrogen, vitamins, amino acids. Lactose acts as a source of carbohydrate, while Bromocresol purple is a pH indicator.

Type of specimen

Food and dairy samples; Water samples.

Specimen Collection and Handling

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,2,8).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(3)
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

Quality Control

Appearance
Cream to greenish yellow homogeneous free flowing powder

Gelling
Firm, comparable with 1.0% Agar gel

Colour and Clarity of prepared medium
Light purple coloured, clear to slightly opalescent gel forms in Petri plates

Reaction
Reaction of 3.32% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH
6.60-7.00

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery	Colour of colony
Cultural Response				
Escherichia coli ATCC 25922	50-100	good-luxuriant	>=70%	yellow
Klebsiella pneumoniae ATCC 13883	50-100	good-luxuriant	>=70%	yellow
Enterobacter aerogenes ATCC 13048	50-100	good-luxuriant	>=70%	yellow
Salmonella Typhimurium ATCC 14028	50-100	good-luxuriant	>=70%	colourless
Shigella flexneri ATCC 12022	50-100	good-luxuriant	>=70%	colourless
Proteus vulgaris ATCC 13315	50-100	good-luxuriant	>=70%	colourless

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1. MacFaddin,Jean F.,Media for isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol1,1985 Baltimore,MD.Williams & Wilkins.

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