



## Bromo Cresol Purple Agar w/Lactose

M1905

This medium is recommended for the isolation of coliforms.

### Composition\*\*

Ingredients	Gms / Litre
Lactose	10.000
Peptone mixture	5.000
Beef extract	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

### Directions

Suspend 28.03 grams in 1000 ml 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 Beef extract provide nitrogen, vitamins, amino acids. Lactose acts as a source of carbohydrate, while Bromocresol purple is a pH indicator.

### 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
<b>Cultural Response</b> <i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	>=70%	yellow

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<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	good-luxuriant	$\geq 70\%$	yellow
<i>Enterobacter aerogenes</i> ATCC 13048	50-100	good-luxuriant	$\geq 70\%$	yellow
<i>Salmonella Typhimurium</i> ATCC 14028	50-100	good-luxuriant	$\geq 70\%$	colourless
<i>Shigella flexneri</i> ATCC 12022	50-100	good-luxuriant	$\geq 70\%$	colourless
<i>Proteus vulgaris</i> ATCC 13315	50-100	good-luxuriant	$\geq 70\%$	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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#### Disclaimer :

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