

Lactose Broth with Bromocresol Purple

Cat. 1272

For the presumptive detection of coliform bacteria in water

Practical information

Applications	Categories
Detection	Coliforms
Industry: Water	



Principles and uses

Lactose Broth with Bromocresol Purple is used for detection of presence of coliform organisms in water and food, and for the determination of lactose fermentative bacteria. It is commonly used with Durham fermentation tubes for the examination of gas formation.

Casein peptone and beef extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Lactose is the fermentable carbohydrate providing carbon and energy. The fermentation of lactose is shown by the acidification of the medium that causes the pH indicator (bromocresol purple) to turn yellow, as well as by gas production in Durham tubes. E. coli and coliforms can ferment lactose under gas production and therefore the color of the medium changes to yellow.

Formula in g/L

Bromocresol purple	0,03	Casein peptone	7
Lactose	5	Beef extract	1

Preparation

Suspend 13 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution and dispense into tubes. Sterilize in autoclave at 121 °C for 15 minutes. Avoid overheating.

Instructions for use

- Take the inoculum with a sterile loop.
- Submerge the handle into the medium and shake gently.
- Incubate at 37±2 °C for 18-24 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Clear beige	Purple	6,7±0,2

Microbiological test

Incubation conditions: (37±2 °C / 18-24 h).

Microorganisms	Specification	Characteristic reaction
Enterococcus faecalis ATCC 11700	Good growth	Yellow/purple medium, Gas (-)
Klebsiella pneumoniae ATCC 13883	Good growth	Yellow medium, Gas (+)
Salmonella typhimurium ATCC 14028	Good growth	Purple medium, Gas (-)
Escherichia coli ATCC 25922	Good growth	Yellow medium, Gas (+)
Aeromonas hydrophila ATCC 7966	Good growth	Purple medium, Gas (-)

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

FDA (1998) Bacteriological Analytical Manual 8th ed. Rev a. AOAC International. Gaithersburg. Va. USA..
Downes, f.p. & k. Ito (2001) compendium of methods for the microbiological examination of foods. 4th ed. APHA. Washington.
European Pharmacopoeia (2005) 5th ed. §2.6.13 test for specified micro-organisms. Edqm. Council of europe. Strasbourg