

## Technical Information

### Bromocresol Purple Broth with Lactose

**Product Code: DM 2265**

**Application:** - Bromocresol Purple Broth with Lactose is used for identification of *Escherichia coli* and coliform bacteria from water.

#### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Meat extract	3.000
Sodium chloride	5.000
Lactose	10.000
Bromo cresol purple	0.020
Final pH ( at 25°C)	7.2±0.2

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

#### Principle & Interpretation

The coliform group of bacteria is the main indicator for suitability of water for domestic, industrial or other uses. The coliform group density has been established as a criterion of the degree of pollution and thus quality of sanitary. Faecal Streptococci and Enterococci are also indicators for faecal pollution <sup>(1)</sup>. Where it is claimed that drinking water has been processed for safety, the finding of such organism demonstrates a failure in the process. It is an important bacterial indicator for determining the extent of faecal contamination in recreational surface waters or drinking water <sup>(2)</sup>. Bromo Cresol Purple Broth with Lactose is used for the identification of *Escherichia coli* and coliforms from water. It is used for enrichment and determining the titre of coliforms in the bacteriological analysis of drinking water <sup>(3, 4)</sup>. The medium contains peptic digest of animal tissue and meat extract, which supplies the essential nutrients for *E. coli* and other coliforms. Sodium chloride maintains the osmotic equilibrium of the medium. Lactose upon fermentation by coliforms produces acid and is indicated by the pH indicator bromo cresol purple. It turns yellow at acidic pH.

#### Methodology

Suspend 28.02 grams of powder media in 1000 ml distilled water. Shake well & Heat to dissolve the medium completely. Dispense in tubes containing Durhams tubes and sterilize by autoclaving at 115°C for 20 minutes.

#### Quality Control

##### Physical Appearance

Cream to yellow homogeneous free flowing powder

##### Colour and Clarity of prepared medium

Purple coloured clear solution without any precipitate

##### Reaction

Reaction of 2.8% w/v aqueous solution at 25°C. pH : 7.2±0.2

**pH range:** 7.00-7.40

##### Cultural Response/Characteristics

DM2265: Cultural characteristics observed after an incubation at 35-37°C for 18- 24 hours.



Dehydrated Culture Media  
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Acid	Gas
<i>Escherichia coli</i> ATCC 25922	50-100	Good-Luxuriant	positive reaction,yellow colour	Positive reaction
<i>Enterococcus faecalis</i> ATCC 29212	50-100	Fair-good	Variable reaction	negative reaction
<i>Klebsiella pneumoniae</i> ATCC 13883	50-100	Good-Luxuriant	positive reaction,yellow colour	Positive reaction
<i>Salmonella Typhimurium</i> ATCC 14028	50-100	Good-Luxuriant	Negative reaction, no colour change	negative reaction

## 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<sup>0</sup> in sealable plastic bags for 2-5 days.

## Further Reading

1. Eaton A. D., Clesceri L. S. and Greenberg A. E., (Eds), 1998, Standard Methods for the Examination of Water and Waste water, 20th Ed, APHA, Washington, D.C.
2. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam
3. Deutsche Einheitsverfahren zur Wasser- Abwasser- und Schalmuntersuchung. VCH Verlagsgesellschaft, D-6940, Weinheim.
4. Verordnung über Trinkwasser und über Wasser für Lebensmittelbetriebe vom 12. Dezember, 1990, Bundesgesetzbl., Teil I;2613 -2629. 1990.

## Disclaimer :

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