



PRODUCT SPECIFICATION SHEET

Bromo Cresol Purple Broth w/ Lactose (DM392)

Intended Use

Bromo Cresol Purple Broth w/ Lactose (DM392) is recommended for identification of *Escherichia coli* and coliforms from water samples.

Product Summary and Explanation

Coliform group are a commonly used bacterial indicator of suitability of water for domestic, industrial or other uses. They are defined as rod-shaped, Gram-negative, non-spore forming bacteria which can ferment lactose with the production of acid and gas when incubated at 35-37°C.⁽¹⁾ Coliforms can be found in the aquatic environment, in soil and on vegetation; they are universally present in large numbers in the feces of warm-blooded animals. The coliform group density has been established as a criterion of the degree of pollution and thus of sanitary quality. Faecal Streptococci and Enterococci are also indicators of faecal pollution.⁽²⁾ Where it is claimed that drinking water has been processed for safety, the finding of such organism demonstrates a failure of the process. It is a valuable bacterial indicator for determining the extent of faecal contamination of recreational surface waters or drinking water.⁽³⁾ Bromo Cresol Purple Broth with Lactose is formulated 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.^(4,5)

Principles of the Procedure

Bromo Cresol Purple Broth w/ Lactose contains peptic digest of animal tissue and meat extract, which serves as sources of carbon, nitrogen and other essential nutrients growth 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. Acid producing organisms produce yellow coloured medium.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Meat extract	3.00
Sodium chloride	5.00
Lactose	10.00
Bromo cresol purple	0.02
Final pH: 7.2 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 28.02 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense in tubes containing Durhams tubes and sterilize by autoclaving at 115°C for 20 minutes.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Purple coloured clear solution without any precipitate
Reaction of 2.8% Solution	pH : 7.2 ± 0.2 at 25°C
Gel Strength	Not Applicable





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

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth	Acid	Gas
1.	<i>Escherichia coli ATCC 25922</i>	50-100	good-luxuriant	positive reaction, yellow colour	positive reaction
2.	<i>Enterococcus faecalis ATCC 29212</i>	50-100	fair-good	variable reaction	negative reaction
3.	<i>Klebsiella pneumoniae ATCC 13883</i>	50-100	good-luxuriant	positive reaction, yellow colour	positive reaction
4.	<i>Salmonella Typhimurium ATCC 14028</i>	50-100	good-luxuriant	negative reaction, no colour change	negative reaction

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer appropriate references for standard test procedures.

Results

Refer appropriate references and procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Bromo Cresol Purple Broth w/ Lactose

Product Code : DM392

Available Pack sizes : 500gm

References

1. American Public Health Association (APHA), Standard Methods for the Examination of Water and Wastewater (19th ed.), (1995), APHA, Washington, DC.
2. 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.





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3. 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
4. Deutsche Einheitsverfahren zur Wasser- Abwasser- und Schallmuntersuchung. VCH Verlagsgesellschaft, D-6940, Weinheim.
5. Verordnung über Trinkwasser und über Wasser für Lebensmittelbetriebe vom 12. Dezember, 1990, Bundesgesetzbl., Teil I;2613-2629.1990.

Further Information

For further information please contact your local MICROMASTER Representative.



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