



PRODUCT SPECIFICATION SHEET

Bromo Cresol Purple Broth w/ Dextrose (DM300)

Intended Use

Bromo Cresol Purple Broth w/ Dextrose (DM300) is used for for identification of *Escherichia coli* and coliforms from water samples.

Product Summary and Explanation

Coliform bacteria are species that inhabit the intestines of warm-blooded animals or occur naturally in soil, vegetation and water. They are usually found in fecally-polluted water and are often associated with disease outbreaks. Although these bacteria are not usually pathogenic themselves, their presence in drinking water indicates the possible presence of other pathogens. The coliform group of bacteria is the principal indicator of suitability of water for domestic, industrial or other uses. Faecal Streptococci and Enterococci are also indicators of faecal pollution.⁽¹⁾ The finding of such organism demonstrates a failure of the process, where it is claimed that drinking water has been processed for safety. It is a valuable bacterial indicator for determining the extent of fecal contamination of recreational surface waters or drinking water.⁽²⁾ Bromo Cresol Purple Broth with Dextrose 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.^(3,4)

Principles of the Procedure

Bromo Cresol Purple Broth w/ Dextrose contains peptic digest of animal tissue and meat extract, which supplies carbon, nitrogen and other essential nutrients for growth of *E. coli* and other coliforms. Sodium chloride maintains the osmotic equilibrium of the medium. Dextrose is a fermentable carbohydrate; which upon fermentation by coliforms produces acid and is indicated by the pH indicator bromo cresol purple. It turns yellow at acidic pH.

Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	10.00
Meat extract	3.00
Sodium chloride	5.00
Dextrose	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 purified/ distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense in tubes containing inverted Durham's tubes and sterilize by autoclaving at 115°C for 20 minutes.





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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

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>Alcaligenes faecalis ATCC 8750</i>	50 -100	fair-good	negative reaction, no colour change	negative reaction
2.	<i>Escherichia coli ATCC 25922</i>	50 -100	good-luxuriant	positive reaction, yellow colour	positive reaction
3.	<i>Enterobacter aerogenes ATCC 13048</i>	50 -100	good-luxuriant	positive reaction, yellow colour	positive reaction
4.	<i>Klebsiella pneumoniae ATCC 13883</i>	50 -100	good-luxuriant	positive reaction, yellow colour	positive reaction
5.	<i>Salmonella Typhimurium ATCC 14028</i>	50 -100	good-luxuriant	positive reaction, yellow colour	positive reaction

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

Test Procedure

Refer to appropriate references for standard test procedures.

Results

Refer to appropriate references and test 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.





PRODUCT SPECIFICATION SHEET

Packaging

Product Name : Bromo Cresol Purple Broth w/ Dextrose

Product Code : DM300

Available Pack sizes : 500gm

References

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 Schallmunteruchung. VCH Verlagsgesellschaft, D-6940, Weinheim.
4. Verordnung über Trinkwasser und über Wasser für Lebensmittelbetriebe vom 12. Dezember, 1990, Bundesgesetzbl., Teil I;2613-2629.1990.



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