

TM 568 – BROMO CRESOL PURPLE BROTH BASE (YEAST FERMENTATION BROTH BASE)

INTENDED USE

For differentiation of various microorganisms based on their fermentation of specific carbohydrates.

PRODUCT SUMMARY AND EXPLANATION

Basal medium (without carbohydrates) are usually employed for studying the carbohydrate utilizing patterns of different organisms by the addition of the desired carbohydrate to the basal medium. Various indicator dyes are used in the basal medium to aid in the visualization of these carbohydrate-utilizing reactions. Bromo Cresol Purple Broth Base is one such basal medium, which employs bromocresol purple as the indicator dye. If the test organism ferments the added carbohydrate, the pH of the medium turns acidic due to the production of acids. The acidity thus produced causes the indicator BCP to change colour from purple to yellow. Air bubbles trapped in the inverted Durhams tubes indicate gas production. Bromo Cresol Purple Broth Base is recommended by APHA for studying fermentation of carbohydrates by pure cultures. Specific carbohydrates are added to the basal medium in a concentration of 0.5-1%. The pattern of fermentation of a battery of carbohydrates is characteristic of a given species or group of species and may be used for their classification or identification.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Sodium chloride	5.000
Beef extract	3.000
Bromo cresol purple	0.040

PRINCIPLE

Bromo Cresol Purple Broth Base consists of a peptone medium supplemented with yeast extract to supply B complex vitamins necessary to support growth. Sodium chloride helps in maintaining osmotic balance. Peptone and beef extract provides nutrients to the media.

INSTRUCTION FOR USE

- Dissolve 18.04 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes containing inverted Durhams tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 10 minutes.
- Cool and aseptically add sterile desired carbohydrate to a final concentration of 0.5 - 1.0%.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Purple coloured clear solution without any precipitate.
pH (at 25°C)	: 7.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid production (with added dextrose)	Gas production (with added dextrose)	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Klebsiella aerogenes</i>	13048	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	Positive reaction, yellow colour	Negative reaction	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Atlas R. M., 2004, Handbook of Microbiological Media, 3rd Ed, CRC Press.
2. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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