

## TM 381 - MacCONKEY BROTH W/ BCP (DOUBLE STRENGTH)

### INTENDED USE

For presumptive identification of coliforms from large samples.

### PRODUCT SUMMARY AND EXPLANATION

MacConkey Broth Purple (Double Strength) w/ BCP is a modification of MacConkey Medium. Childs and Allen demonstrated the inhibitory effect of neutral red and therefore substituted it by the less inhibitory bromocresol purple dye. BCP is more sensitive in recording pH variation in the medium.

Liquid specimens are directly inoculated while solids have to be homogenized in appropriate diluents such as physiological saline, phosphate buffers, etc. The inoculation must be effected at 10% v/v in Durhams tubes. If the inoculum is greater than 1 ml, it is necessary to use the medium at double strength, inoculating equal volumes of specimen and medium.

### COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	40.000
Lactose	20.000
Bile salts	10.000
Sodium chloride	10.000
Bromo cresol purple	0.020

### PRINCIPLE

Peptic digest of animal tissue provides essential growth nutrients. Lactose is the fermentable carbohydrate. Sodium taurocholate inhibits gram-positive organisms. Sodium chloride maintains the osmotic balance of the medium. Bromocresol purple is the pH indicator in the medium which turns yellow under acidic condition. Lactose fermentation turn the medium yellow due to the acidity produced on lactose fermentation. The colour change of the dye is observed when the pH of the medium falls below 6.8. Lactose non-fermenting organisms like Salmonella and Shigella do not alter the appearance of the medium.

### INSTRUCTION FOR USE

- Dissolve 80.02 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes with inverted Durham tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Light yellow to beige homogeneous free flowing powder.  
**Appearance of prepared medium** : Purple clear solution without any precipitate or scum.  
**pH (at 25°C)** : 7.4±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Gas	Incubation Temperature	Incubation Period
<i>Enterobacter aerogenes</i>	13048	50-100	Good-luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	Positive reaction, yellow colour	Positive reaction	35-37°C	18-24 Hours
<i>Salmonella Choleraesuis</i>	12011	50-100	Fair to good	Negative reaction, no colour change	Negative reaction	35-37°C	18-24 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Fair to good	Negative reaction, no colour change	Negative reaction	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	>=10 <sup>3</sup>	Inhibited	-	-	35-37°C	18-24 Hours

**PACKAGING:**

In pack size of 100 gm and 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.







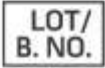


**DISPOSAL**

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

**REFERENCES**

1. MacConkey A. T., 1900, The Lancet, ii: 20.
2. Childs E. and Allen, 1953, J. Hyg: Camb. 51:468-477



 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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