



## Product Data Sheet

### **MacCONKEY AGAR W/ BROMO THYMOL BLUE**

**Product No.** GB-DCM-00391-1A

### **INTENDED USE**

For detection of lactose fermenting enteric bacteria.

### **PRODUCT SUMMARY**

MacConkey Agar is the earliest selective and differential medium for cultivation of enteric microorganisms from a variety of clinical specimens. The original medium contains protein, bile salts, sodium chloride and two dyes. MacConkey Agar w/Bromo thymol blue is a modification of the original medium by the replacement of the two dyes with a single dye i.e. bromo thymol blue.

### **Product Specifications**

<b>Ingredients</b>	<b>Gms / Ltr</b>
Peptone	17.000
Proteose peptone	3.000
Lactose	10.000
Bile salts	1.500
Sodium chloride	5.000
Bromothymol blue	0.030
Agar	15.000

### **PRINCIPLE**

Peptone and proteose peptone serve as the sources of essential nutrients. Lactose is the fermentable carbohydrate source. Lactose fermenting enteric bacteria ferment lactose and produce acidic byproducts. This acidic condition formed causes the pH indicator dye i.e. bromo thymol blue to change colour from blue to yellow. Lactose non-fermenters fail to cause a colour change in the medium. Sodium chloride maintains the osmotic equilibrium of the medium. Bile salts serves to make the medium selective by inhibiting the accompanying gram-positive bacteria.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of Colony	Incubation Temperature	Incubation Period
Klebsiella aerogenes	13048	50-100	Luxuriant	$\geq 70\%$	Yellow	35-37°C	18-24 Hours
Enterococcus faecalis	29212	$\geq 10^3$	Fair to good	0 %	-	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	$\geq 70\%$	Yellow	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	$\geq 70\%$	Colourless-light blue	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	$\geq 70\%$	Colourless-light blue	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	$\geq 70\%$	Colourless-light blue	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25923	$\geq 10^3$	Inhibited	0 %	-	35-37°C	18-24 Hours

#### INSTRUCTION FOR USE

- Dissolve 51.53 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

#### QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Green coloured clear to slightly opalescent gel forms in Petri plates.

pH (at 25°C) : 7.1±0.2



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### **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

**This product is for research use only.**