

# TM 529 - MacCONKEY BROTH W/ BCP & NaCl (ISO 9308-2:2012, ISO 4832:2006)

### **INTENDED USE**

For presumptive identification of coliforms from water, milk and foods etc.

## PRODUCT SUMMARY AND EXPLANATION

MacConkey broth w/BCP & NaCl is a modification of the MacConkey medium in which the neutral red dye is replaced by Bromocresol purple. BCP is more sensitive to pH variations in the medium, therefore leads to better recovery. This medium is recommended by the ISO committee with the inclusion of bile salts, as a presumptive test medium for identification of coliforms from water and other materials of sanitary importance.

## **COMPOSITION**

Ingredients	Gms / Ltr		
Peptic digest of animal tissue	20.000		
Lactose	10.000		
Bile salts	5.000		
Sodium chloride	5.000		
Bromocresol purple	0.010		

# **PRINCIPLE**

The medium contains Peptic digest of animal tissue which provides the nitrogenous and other essential growth compounds. Lactose is the source of fermentable carbohydrate. Sodium chloride maintains the osmotic balance of the medium. Bromocresol purple is less inhibitory, and it is more suitable pH indicator which changes colour from purple to yellow. It provides a more sensitive and definite indication of acid formation. Bile salts which inhibits the growth of grampositive microorganisms

## **INSTRUCTION FOR USE**

- Dissolve 40.01 grams in 1000ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Dispense into test tubes with Durham's tube.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool the tubes to 45-50°C before inoculation.

# **QUALITY CONTROL SPECIFICATIONS**

Appearance of Dehydrated powder Cream to yellow, homogeneous free flowing powder Appearance of Prepared medium Purple coloured, Clear to slightly opalescent solution

pH (at 25°C)  $7.4 \pm 0.2$ 

## **INTERPRETATION**

Cultural characteristics observed with after an incubation.

Microorganism	ATCC	Inoculum	Growth	Acid production	Gas	Incubation	Incubation
		(CFU/ml)			production	Temperature	Period















Escherichia coli	8739	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	30-35°C	18-48 Hours
Escherichia coli	25922	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	30-35°C	18-48 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	Positive reaction	Positive reaction	30-35°C	18-48 Hours
Staphylococcus aureus	25923	≥1000	Inhibited	-	-	30-35°C	18-48 Hours

## **PACKAGING**

In 100 & 500 gm packaging size.

#### **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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.

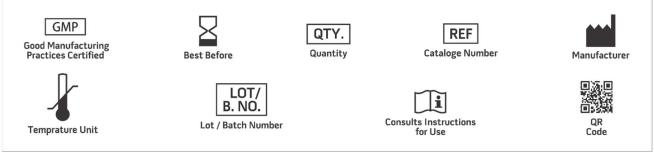
**Product Deterioration:** Do not use, if powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

### **DISPOSAL**

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

## **REFERENCES**

- 1. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
- 2. Childs E. and Allen, 1953, J. Hyg: Camb. 51:468-477.
- 3. International Organization for Standardization (ISO), 1990, Draft ISO/ DIS 9308-2.
- 4. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 6. MacConkey A. T., 1900, The Lancet, ii: 20



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

\*For Lab Use Only Revision: 9th July 2019









