

MacConkey Broth(USP)

Catalog:HB8313-7

MacConkey Broth is used for the detection of *Escherichia coli* and coliform bacteria.

Approximate Formula:

Ingredients	gm/liter
Panreac Digest of Gelatin	20.0
Lactose Monohydrate	10.0
Dehydrated Ox Bile	5.0
Bromocresol Purple	0.01
Final pH 7.3±0.2 at 25 °C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 35.0g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into test tubes with gas collecting tubes (Durham). Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes.

Principle and Interpretation:

Panreac digest of gelatin provides amino acids and other growth factors. Lactose is a carbon energy source for gram-negative lactose-fermenting bacilli. Ox bile inhibits the growth of gram-positive organisms. Bromocresol purple is the indicator.

Appearance:

Dehydrated medium is a free-flowing yellowish-grey powder. The prepared medium is a kind of purplish-red transparent liquid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

MacConkey Broth must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 42±1 °C for 24-48 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Remarks
<i>Salmonella typhimurium</i>	ATCC 14028	10-100	Luxuriant	Turbidity 2; non-aerosis
<i>Staphylococcus aureus</i>	ATCC 25923	1000-5000	Inhibited	Turbidity0(no growth)
<i>Escherichia coli</i>	ATCC 25922	10-100	Luxuriant	Turbidity2, yellow with gas

References:

- 1.United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
- 2.European Directorate for the Quality of Medicines and Healthcare. 2008. The European pharmacopoeia, 6th ed., Supp. 1, 4-1-2008, online. European Directorate for the Quality of Medicines and Healthcare, Council of Europe, 226 Avenue de Colmar BP907-, F-67029 Strasbourg Cedex 1, France.
- 3.Japanese Ministry of Health, Labour and Welfare. 2006. The Japanese pharmacopoeia, 15th ed., online. Japanese Ministry of Health, Labour and Welfare.
4. MacConkey. 1901. Zentralbl. Bakteriell. 29:740.
- 5.MacConkey. 1905. J. Hyg. 5:333.