

TM 380 - MacCONKEY BROTH W/ NEUTRAL RED (DOUBLE STRENGTH)

INTENDED USE

For primary isolation of coliforms from large samples such as water or waste water

PRODUCT SUMMARY AND EXPLANATION

MacConkey Broth (Double strength) is recommended for detection of bacteria responsible for food poisoning, for isolation, identification and enumeration of *Escherichia coli*. MacConkey Broth (Double strength) is also recommended for the primary isolation of coliforms from large samples such as water and wastewater.

MacConkey Broth has also been recommended for use in microbiological examination of foodstuffs and for direct plating / inoculation of water samples for coliform counts. This media is also used for the Examination of Milk and Dairy Products and pharmaceutical preparations.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	40.000
Lactose	20.000
Bile salts	10.000
Sodium chloride	10.000
Neutral red	0.140

PRINCIPLE

The selective action of this medium is attributed to bile salts, which are inhibitory to most species of gram-positive bacteria. Gram-negative bacteria usually grow well on the medium and are differentiated by their ability to ferment lactose. Lactose fermenting strains grow as yellow. Lactose non-fermenting strains, such as *Shigella* and *Salmonella* are colourless and transparent and typically do not alter appearance of the medium.

INSTRUCTION FOR USE

- Dissolve 80.14 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Distribute into test tubes with inverted Durham tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool the tubes before inoculation.

Note: Where the number of organisms is expected to be low, larger quantities of the sample may be directly added to equal amount of double strength medium in dilution bottles or flasks.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Red coloured clear solution without any precipitate.
pH (at 25°C) : 7.5±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	Luxuriant	Positive reaction	Positive reaction	35-37°C	18-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	Positive reaction	Positive reaction	35-37°C	18-24 Hours
<i>Salmonella choleraesuis</i>	12011	50-100	Fair to good	Negative reaction	Negative reaction	35-37°C	18-24 Hours
<i>Staphylococcus aureus</i>	25923	$\geq 10^3$	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. Bureau of Indian Standards IS: 5887 (Part I) - 1976, reaffirm 1986.
2. Speck M. (Ed.), 1985, Compendium of Methods for the Microbiological Examination of Foods, 2nd ed., APHA, Washington, D.C.
3. Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 1992, Standard Methods for the Examination of Water and Wastewater, 18th ed., APHA, Washington, D.C.
4. Marshall R. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington, D.C.
5. The United States Pharmacopoeia XXI and the National Formulary, 16th ed., 1985, United States Pharmacopoeial Convention, Inc., Washington, D.C.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Buckhorn 10 48143 Ahaus, Germany</small>	 European Conformity	 QR Code	 Consults instructions for Use	 Best Before

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

***For Lab Use Only**
Revision: 08 Nov., 2019