LICKSON®

CE

TECHNICAL SHEET

MAC CONKEY (PURPLE) BROTH (USP)

Liquid enrichment medium for detection of coliform bacteria, according to USP/EP/JP.

DESCRIPTION

MacConkey Broth is used for cultivating gram-negative, lactose-fermenting bacilli in water, foods and pharmaceutical raw materials as a presumptive test for coliform organisms. This medium complies with the recommendations of the harmonized method in the United States Pharmacopoeia (USP), European Pharmacopoeia (EP) and Japanese Pharmacopoeia (JP) for the detection of E. coli in non sterile products.

PRINCIPLE

Pancreatic digest of gelatin provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Lactose is the fermentable carbohydrate. Ox bile inhibits the growth of Gram-positive bacteria. Bromocresol purple is the pH indicator.

COMPOSITION	g/L
Pancreatic Digest of Gelatin	20.0
Lactose Monohydrate	10.0
Ox Bile	5.0
Bromocresol Purple	0.01

Final pH 7,3 ± 0,2 at 25°C

WARNING AND PRECAUTIONS

Observe the precautions normally taken when handling laboratory reagents.
Prepared Medium: The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.
Safety Data Sheet is available on request for professional users.
All wast must be disposed of according to local directives.

STORAGE AND STABILITY	
Prepared medium:	10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

PREPARATION

Ready-to-use.

PROCEDURE

As in the Pharmacopoeia, prepare a sample using a 1 in 10 dilution of not less than 1 g of the product to be examined by choosing as diluent Buffered Peptone Water or Maximum Recovery Broth. Use 10 ml of this solution or the quantity corresponding to 1 g or 1 ml of the sample to inoculate Tryptic Soy Broth and incubate at 30-35°C for 18-24 hours. Transfer 1 ml of the pre-enrichment culture to 100 ml of MacConkey Broth and incubate at 42-44°C for 24-48 hours. To isolate E. coli, subculture on a plate of MacConley Agar and incubate aerobically at 30-35°C for 18-72 hours.

NOTES: Durham tubes of MacConeky Broth are usually inoculated directly with the test sample or its dilutions

RESULTS

Lactose-fermenting, Gram negative rods grow well in MacConkey Broth and produce acid, causing the medium to turn yellow after sufficient incubation time. Non-fermenting Gram negative organisms produce good growth but will not produce acid.

QUALITY CONTROL
Prepared medium: clear, purple.

Typical response after incubation at 42-44°C for 24-48 hours:

MICROORGANISM	GROWTH
Escherichia coli ATCC 8739	Good
Staphylococcus aureus ATCC 6538	Inhibited

REFERENCES

1. European Pharmacopoeia 6.5 (2009) 2.6.13. Microbiological examination of non-sterile products: Test for specified microorganisms.
2. United States Pharmacopoeia 32 NF 27 (2009) Microbiological examination of non-sterile products: Test for specified microorganisms.
3. Japanese Pharmacopoeia 4.05 (2008) Microbiological examination of non-sterile products: Test for specified microorganisms.
4. Murray, Baron, Jorgensen, Landry and Pfaller ed. (2007) Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
5. Murray, Baron, Jorgensen, Landry and Pfaller ed. (2007) Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.

PRESENTATION	Packaging	REF.
Prepared medium		
MAC CONKEY (PURPLE) BROTH (USP)		
	6 x 100 mL bottles	**63352**

SYMBOLS

Read the instructions

Biological hazard

CE Mark (product complies with the requirements of Regulation (EU) 746/2017)

Temperature limitation

Use by

IVD **For in vitro diagnostic use**

Manufacturer