

# Lethen Agar Modified



Medium used for the identification and determination of the antimicrobial activity of quaternary ammonium compounds and the microbial analysis of cosmetics.

\*Equally use with KFCC (MB-L0691C).

## • CONTENTS (Liter)

Proteose Peptone	10.0 g
Pancreatic Digest of Casein	10.0 g
Yeast Extract	2.0 g
Beef Extract	3.0 g
Sodium Chloride	5.0 g
Dextrose	1.0 g
Polysorbate 80	7.0 g
Lecithin	1.0 g
Sodium Bisulfite	0.1 g
Agar	20.0 g
Final pH = 7.2 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 59.1 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Pour into petri dishes.

## • INTERPRETATION

Lethen Agar Modified is a medium used for the identification and determination of the antimicrobial activity of quaternary ammonium compounds and the microbial analysis of cosmetics. Proteose peptone, pancreatic digest of casein, yeast extract and beef extract provide nitrogen, vitamins, minerals and amino acids for growth of microorganisms. Sodium chloride maintains the osmotic balance. Dextrose is a carbohydrate. Polysorbate 80 neutralizes phenol, formalin and hexachlorophene. Lecithin and sodium bisulfite neutralize quaternary ammonium compounds and partially neutralize the preservative system in cosmetics. Agar is the solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 24 - 48 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: moist with a tendency to clump

Color: beige

### Prepared medium

Appearance: slightly opalescent, may have a slight precipitate

Color: light amber

Incubation conditions : 35 ± 2°C / 24 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Staphylococcus aureus</i>	6538	50-100	good
<i>Escherichia coli</i>	8739	50-100	good
<i>Salmonella typhimurium</i>	14028	50-100	good

**• STORE**

The powder is very hygroscopic. Store the powder at 2 - 8°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

**• REFERENCES**

1. ISO/ FDIS 21149: Cosmetics- Microbiology- Enumeration and detection of aerobic mesophilic bacteria.
2. Hitchins, Tran and McCarron. 1995. In FDA bacteriological analytical manual, 8th ed. AOAC International, Gaithersburg, Md.
3. Refer to the KFCC.

**• PACKAGE**

Cat. No : MB-L0691 Lethen Agar Modified	500 G
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