

TM 762 – LITMUS LACTOSE BILE SALT AGAR (LLBSA)

INTENDED USE

For selective isolation of enteric bacteria on the basis of lactose fermentation.

PRODUCT SUMMARY AND EXPLANATION

Numerous plating media are in use today for the differentiation of lactose-fermenters and lactose non-fermenters. Some of these are selective, whereas others are differential. Some lactose fermenting, gram-negative enteric bacteria can tolerate the inhibitory substances present in the media. These bacteria can be recognized readily by their appearance on selective plates. Litmus Lactose Bile Salt Agar is a modification of Litmus Lactose Agar formulated by Wurtz and is used for the isolation of enteric bacteria. It can be successfully used in place of MacConkey Agar.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	20.000
Sodium taurocholate	5.000
Meat extract B	5.000
Sodium chloride	5.000
Lactose	20.000
Litmus	0.500
Agar	15.000

PRINCIPLE

This medium consists of sodium taurocholate, which inhibits the growth of gram-positive microorganisms. Lactose is the fermentable sugar utilized by coliform enteric bacteria leading to production of acid. Peptone and Meat extract B supply the essential nutrients like nitrogen compounds for the growth of enteric bacteria. Sodium chloride maintains the osmotic balance of the medium.

INSTRUCTION FOR USE

- Dissolve 70.5 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light purple to greyish yellow homogeneous free flowing may contain minute to small particles.
Appearance of prepared medium	: Light purple coloured slightly opalescent gel forms in Petri plates, may have black particles.
pH (at 25°C)	: 7.4 ± 0.2

INTERPRETATION



Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	>=50%	Red	35-37°C	18-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	None-poor	0-10%	-	35-37°C	18-24 Hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good-luxuriant	>=50%	-	35-37°C	18-24 Hours
<i>Salmonella Typhi</i>	6539	50-100	Good-luxuriant	>=50%	Deep blue-violet	35-37°C	18-24 Hours
<i>Proteus mirabilis</i>	25933	50-100	good-luxuriant (no swarming)	>=70%	Blue-violet	35-37°C	18-24 Hours
<i>Enterococcus faecalis</i>	29212	50-100	None-poor	0-10%	-	35-37°C	18-24 Hours

PACKAGING:

In pack size of 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. 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. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
3. 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.
4. Wurtz, 1897, Technique Bacteriologique Paris, Masson.



 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 Buckstrasse 10 48163 Muenster, 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**
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