



Technical Data Sheet

Luria Bertani Agar (Miller)

(MML-LBA-01)

Principle

Luria Bertani agar is modification of LB broth, Miller, composed of tryptone, yeast extract, sodium chloride and agar. The Tryptone serves the source of nitrogen and amino acids, yeast extract provides nitrogen and vitamins and other growth factors. Sodium chloride maintains the osmotic equilibrium. Agar is a solidifying agent. The Luria Bertani (Miller) is used for the cultivation of *Escherichia coli*.

Use: Recommended for cultivation of recombinant strains of *Escherichia coli*.

Contents*

Ingredients

	Gram/Litre
Tryptone	10.000
Yeast Extract	5.000
Sodium Chloride	10.000
Agar	15.000
pH at 25 °C	7.0 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 40.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light beige colored free flowing, homogeneous powder
Reaction of 4.0% solution	7.0 ±0.2 at 25 °C
pH	6.80- 7.20
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light yellow to amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	Inoculum	Growth	Recovery	Incubation Temperature	Incubation period
<i>Escherichia coli</i> (ATCC 8739)	50-100	Luxurious	70-80%	33-37 °C	18-48 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
3. Rand, M. C., Arnold E. Greenberg, and Michael J. Taras, (1976), *Standard methods for the examination of water and wastewater*. Prepared and published jointly by American Public Health Association, American Water Works Association, and Water Pollution Control Federation.

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