

TECHNICAL DATA SHEET

Luria Bertani Agar, Miller (Miller Luria Bertani Agar)

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: For the cultivation and maintenance 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.

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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 $\pm$ 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 $\leq$ 100 CFU at 32-37°C for 18-72 hours
Indicative properties	Optimum at $\leq$ 100 CFU at 32-37°C for 18-48 hours
Negative control	Performed using sterile distilled water

Different Microbial Response Prepare media as per the label directions. Inoculate (Inoculum 50-100 CFU) and incubate the media at 35 $\pm$ 2°C for 18-24 hours.

Organism	ATCC	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i>	8739	50-100	Luxuriant	$\geq$ 70%
<i>Escherichia coli</i>	25922	50-100	Luxuriant	$\geq$ 70%

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

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.

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Reference

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