Luria Bertani Agar, Miller

Intended Use
Luria Bertani Agar, Miller is recommended for the cultivation and maintenance of recombinant strains of *Escherichia coli* in genetic & molecular biology procedures and for routine cultivation and estimation of not particularly fastidious microorganisms.

Summary
Luria Bertani Agar, Miller is a nutritionally rich media recommended for growth of pure cultures of recombinant strains of *E. coli*. The media are nutritionally rich suitable for the growth of pure cultures like recombinant strains. For example, *Escherichia coli* K12 and derived strains which are deficient in Vitamin B synthesis and modified by specific mutation to create auxotrophic organisms, that means they are not able to grow on nutritionally poor media. Luria Bertani Agar, Miller contains double amount of sodium chloride of the Luria Agar and Luria Broth. This allows the researcher to select the optimal salt concentration for a specific strain.

Principle
Tryptone and yeast extract serve as a source of nitrogen, sulfur and carbon while Yeast extract also contains vitamin B complex. Sodium chloride provides sodium ions for the membrane transport and maintains osmotic equilibrium of the medium. Agar is the solidifying agent.

Formula*

Ingredients	**g/L**
Tryptone	10.0
Yeast Extract	5.0
Sodium Chloride	10.0
Agar	15.0
Final pH (at 25°C)	7.5 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 40.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Heat with frequent agitation and boil for 1 minute to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Light yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Yellow to amber coloured, clear to slightly opalescent gel forms in petridishes.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth was observed after an incubation at 30°C-35°C for 18-24 hours.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30°C-35°C for 18 hours.

Organism (ATCC)	Growth
Escherichia coli (8739)	Good
Escherichia coli (25922)	Good
Escherichia coli (11105)	Good
Escherichia coli (4157)	Good
Escherichia coli (10536)	Good

Note: For good growth - Growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Interpretation of Results

Growth is results in the form of isolated colonies and/or a confluent lawn on the surface of the agar medium or the appearance of turbidity in the broth medium.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

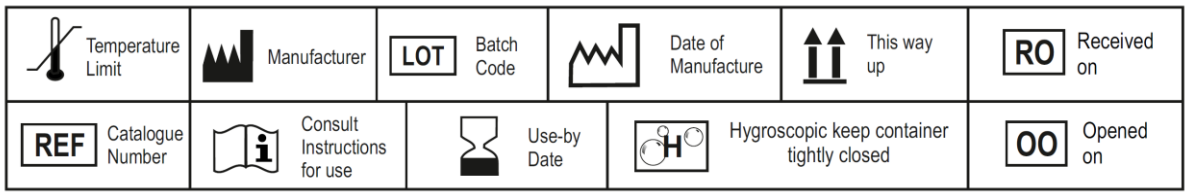
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Atlas R.M., 1993, Handbook of Microbiological media, Ed. By Parks L., CRC Press Inc.
2. Lennox E.S. 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201120300500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.