Luria Agar

Intended Use
Luria Agar is recommended for the cultivation and maintenance of recombinant strains of *Escherichia coli* and for routine cultivation of not particularly fastidious microorganisms.

Summary
Luria Agar is prepared as described by Lennox for cultivation and maintenance of recombinant strains of *Escherichia coli*. The media is generally used for molecular and genetic studies, because of its nutritive capacity and simple composition, which can be easily altered as per specific requirements. The medium is nutritionally rich for the growth of pure cultures of recombinant strains. Strains which are generally derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis and are further modified by specific mutation to create auxotrophic strains that are unable to grow on nutritionally deficient media.

Principle
Tryptone provides peptides and peptones while Vitamin B complex is provided by yeast extract. Sodium chloride provides sodium ions for the membrane transport and maintains osmotic equilibrium of the medium.

Formula*
Ingredients	**g/L**
Tryptone	10.0
Yeast Extract	5.0
Sodium Chloride	5.0
Agar	15.0
Final pH (at 25°C)	7.0 ± 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 35.00 g of the powder in 1000 mL purified / distilled water.
2. Heat with frequent agitation to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Dispense as desired.

Quality Control
Dehydrated Appearance: Cream to 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

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

Product Presentation:

Cat No.	Product description	Pack Size
201120280100	Dehydrated Culture Media	100 g
201120280500	Dehydrated Culture Media	500 g