



LURIA BROTH

TM 377

INTENDED USE

For maintenance and propagation of *Escherichia coli*

COMPOSITION

Ingredients	Gms/Ltr
Tryptone	10.000
Sodium chloride	5.000
Yeast extract	5.000

PRODUCT SUMMARY AND EXPLANATION

Luria Broth is one of the many modifications, suggested by different authors, of the original formulation of Luria. Luria Broth is the modification of the original formulation of Luria, as described by Lennox. Lennox described LB Broth in 1955 for growth and maintenance of *E. coli* strains used in molecular microbiology procedures. LB Broth, Lennox is nutritionally formulated to enhance the growth of recombinant strains of *E. coli*. These strains are generally derived from *E. coli* K12 and will not grow on nutritionally deficient media because they are unable to produce vitamin B. Addition of glucose helps to prepare the complete medium formulated by Lennox. Luria Broth contains half the concentration of sodium chloride than in Luria Broth, Miller allowing the researcher to select a medium with optimal salt concentration for a specific strain.

PRINCIPLE

This medium has nutrient rich formulation which provides peptides, vitamins and trace elements. Sodium chloride provides essential electrolytes and also helps to maintain the osmotic balance of the medium. Yeast extract is the total soluble portion which is responsible to provide vitamin B - complex to the medium.

INSTRUCTION FOR USE

1. Dissolve 20gms in 1000ml distilled water.
2. Gently heat to boiling with gentle swirling and dissolve the medium completely.
3. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
4. Cool to room temperature and pour into sterile test tubes.



QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Cream to yellow colour, homogeneous free flowing powder

Appearance of prepared medium: Yellow to amber colour, clear solution

pH (at 25°C): 7.0 ± 0.2

INTERPRETATION:

Cultural characteristics observed after incubation for 18–24 hours at $35 \pm 2^\circ\text{C}$.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Escherichia coli</i>	25922	50 - 100	Luxuriant
<i>Escherichia coli</i>	23724	50 - 100	Luxuriant
<i>Escherichia coli DH5 alpha</i>	MTCC 1652	50 - 100	Luxuriant

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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.

REFERENCES

1. Ausubel, F.M., R. Brent, R.E. Kingston, D.D. Moore, J.G. Seidman, J.A. Smith, and K. Struhl. 1994. Current protocols in molecular biology. Vol. 1. Current Protocols, New York, N.Y.
2. Luria S. E. and Burrous J. W., 1957, J. Bacteriol. 74: 461-476
3. Lennox E. S., 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190.
4. Miller, 1972, Experiments in Molecular Genetics, Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y



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PRODUCT DATA SHEET

 For In Vitro Diagnostic Use	 Catalogue Number	 Quantity	 Lot / Batch Number	 Temperature Unit	 Manufacturer	 Best Before
 Authorized Representative	 European Conformity	 Consults Instructions for Use	 ISO 9001:2015 Certification	 QR Code	 Certification of Current Good Manufacturing Practices	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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