

LURIA BROTH (MILLER'S LB BROTH)*

CAT N°: 1551

For *E.coli* in molecular genetics studies

FORMULA IN g/l

Tryptone	10.00	Yeast Extract	5.00
Sodium Chloride	10.00		

Final pH 7.0 ± 0.2 at 25°C

PREPARATION

Suspend 25 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

USES

LURIA BROTH (Miller's LB Broth) Luria Broth (Miller's LB Broth) is based on LB Medium as described by Miller. It is suitable for the growth and maintenance of *E. coli* strains used in molecular microbiology procedures.

It is a nutritive rich medium designed for growth of pure cultures of recombinant strains. *E. coli* grows quicker because the Tryptone and Yeast extract supply essential growth factors such as nitrogen, carbon, sulfurs, minerals and vitamins, particularly B-group and other metabolites that the microorganism would otherwise have to synthesize. Sodium Chloride supplies essential electrolytes for transport and osmotic balance.

In Luria Broth (Miller's LB Broth) sodium chloride level is five times higher than in LB Broth (Lennox) (Cat. 1231) and twenty times higher than in Luria Broth (Miller's Modification) (Cat. 1266). This allows selecting the optimal salt concentration medium for a specific strain.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 18 - 24 hours

Microorganisms	Growth
<i>Escherichia coli</i> ATCC 23724	Good
<i>Escherichia coli</i> ATCC 53868	Good
<i>Escherichia coli</i> ATCC 33694	Good
<i>Escherichia coli</i> ATCC 33849	Good

BIBLIOGRAPHY

Atlas, R. M., L.C. Parks (1993) Handbook of Microbiological Media. CRC Press, Inc. London.

The condensed protocols from molecular cloning: a laboratory manual/ Joseph Sambrook, David W .Russell

STORAGE

Once opened keep powdered medium closed to avoid hydration.



* See Composition Comparison for all LB/Luria Media Table