

## Sterile Luria Bertani Broth

LQ118

For the cultivation and maintenance of recombinant strains of *Escherichia coli* and may be used for routine cultivation of not particularly fastidious microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Yeast extract	5.000
Sodium chloride	10.000

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Label the ready to use LQ118 bottle. Inoculate the sample and Incubate at specified temperature and time.

### Principle And Interpretation

Luria Bertani Broth, Miller (1) is slightly different with double amount of sodium chloride as compared to original media described by Lennox (2) for cultivation and maintenance of recombinant strains of *Escherichia coli*. The media is nutritionally rich for the growth of pure cultures of recombinant strains. Strains derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis which are further modified by specific mutation to create auxotrophic strains and are therefore unable to grow on nutritionally deficient media. Casein enzymic hydrolysate provides peptides and peptones while Vitamin B complex is provided by yeast extract. Sodium chloride provides sodium ions for membrane transport and also maintains the osmotic equilibrium of the medium.

### Quality Control

#### Appearance

Sterile clear Luria Bertani broth in bottles.

#### Colour

Yellow to amber coloured solution.

#### Quantity of medium

10ml of medium in bottles.

#### Reaction

7.30- 7.70

#### Sterility test

Passes release criteria

#### Cultural Response

Cultural characteristics observed after incubation at 35 - 37°C for 18 - 24 hours.

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

## Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label.

## Reference

1. Lennox E.S./ 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190. 2. Atlas R.M., 1983, Handbook of Microbiological Media, Ed. By Parks L., CRC Press, Inc.



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