Technical Information

L-Growth Medium

Product Code: G1005

L-Growth Medium is recommended for cultivation and maintenance of recombinant strains of *Escherichia coli* for genetic and molecular biology studies.

Composition**

Ingredients	Grams/Litre
Tryptone	10.00
Yeast extract	5.00
Sodium chloride	0.50

** Formula adjusted, standardized to suit performance parameters

Methodology

Suspend 15.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation

L-Growth Medium is a nutritionally enriched medium for the cultivation and maintenance of recombinant strains of *E. coli* for genetic and molecular biology studies for purposes of strain maintenance, cloning, plasmid propagation, and protein expression (1). This nutritionally rich medium was originally developed by Miller for cultivation and maintenance of *E. coli* cells in molecular biology (2).
All nutritional requirements of *E. coli* strains are provided by L-Growth Medium. Peptides and amino acids are abundantly present in Tryptone. Yeast extract is a rich source of amino acids, vitamins, nucleotides and carbohydrates. These nutritional elements support a luxurious growth of *E. coli* cells. The concentration of NaCl in this media is low compared to both LB Miller and LB Lennox formulations, respectively 10% and 5% of the NaCl concentration is present in both formulations. These variations in Sodium chloride content make it possible to select the optimal salt concentration for a specific strain.

Quality Control :

Appearance of Powder :
Light yellow coloured, homogeneous, free flowing powder.
Colour and Clarity :
Light amber coloured, clear solution without any precipitate.
Cultural Response :
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)	Growth
Escherichia coli ATCC 23724	good-luxuriant
Escherichia coli ATCC 25922	good-luxuriant
Escherichia coli MTCC 1652	good-luxuriant

Storage and Shelf Life

Store below 30°C and the prepared medium at 2 - 8°C. Use before expiry date on the label.

References

1. Miller, J.H., Experiments in molecular genetics, Cold Spring harbour Laboratory, Cold Spring harbour, New York, (1972).
2. Sambrook, J,., E. F. Fritsch, and T. Maniatis, 1989, Molecular cloning: a laboratory manual, 2nd edition ed., Cold Spring Harbour laboratory, Cold Spring Harbour, N.Y.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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