PRODUCT INFORMATION

Product Type: Bottle product

Cat No. BP302 - LB BROTH

Intended Use:

For molecular genetics studies in *E. coli*. For preparation and recovery of competent cells.

Principles and uses:

Luria Broth (Miller's LB Broth) is based on LB Medium as described by Miller for the growth and maintenance of *E. coli* strains used in molecular microbiology procedures.
These strains are generally derived from *E. coli* K12, which are unable to produce vitamin B, so this media is formulated to enhance the growth of nutritionally demanding microorganisms. This strain of *E. coli* has been further modified through specific mutation to create an auxotrophic strain that is not capable of growth on nutritionally deficient media.
Tryptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Sodium chloride supplies essential electrolytes for transport and osmotic balance. If desired aseptically add 10 ml of sterile 20% glucose solution and mix thoroughly for a better growth. Bacteria that contain plasmids tend to grow best in broth that has between 5 and 10 g of salt. Various cofactors may also need to be added to the broth if working with certain types of bacteriophages. For example, bacteriophage labmda requires an excess of magnesium in the broth to properly infect bacteria. Luria Broth (Miller's LB Broth) has a different sodium chloride level than other media such as LB Broth (Lennox) or Luria Broth (Miller's Modification). This allows to select the optimum salt concentration of the medium for a specific strain.

Composition:

Sodium chloride 10 g/L
Tryptone 10 g/L
Yeast extract 5 g/L

Storage: 2°-25°C
Appearance: Amber
pH Range: 6.8 - 7.2
Exp. Date: Printed on label and on the item.
Required materials not supplied: Laboratory equipment as required.

Warning and Precautions:

Warning and Precautions - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Bottles if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Bottles may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

Waste Disposal

After interpretation all items should be destroyed by standard incineration methods.

Performance Testing Results:

Inoculum 10000 cfu.

TEST	ATCC	Incubation Temp. (℃)	Incubation Cond.	Reaction 1
Escherichia coli	DH5-ALPHA W.S	33-37 ℃	Aerobic, 24 hours	Growth

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