LB Broth, Miller | AS-1270

Used for cultivation of *E. coli* in fermentation and molecular genetic studies.

Luria-Bertani (LB) Broth, Miller modification is a nutrient-rich medium used especially for the support and cultivation of *Escherichia coli* strains, especially recombinant variants. LB broth, which is derived from the original Lennox medium, has a greater sodium chloride concentration to promote osmotic balance and membrane transfer. The growth of *E. Coli* K12 strains, which frequently have auxotrophic needs, is optimized with this mixture. Essential amino acids, peptides, vitamins, and other growth factors are provided by tryptone and yeast extract. To meet the needs of a particular strain, the medium can be further supplied with glucose and have the salt concentrations changed.

Composition (gr/L)	
Tryptone	10
Yeast Extract	5
Sodium Chloride	10
Final pH at 25°C	7.0 ± 0.2

Preparation

Dissolve 25 g of the powder into 1 litter distilled water. Autoclave at 121 °C for 15 minutes.

Quality Control

Dehydrated Appearance: Tan, free-flowing, homogeneous.

Prepared Appearance: Light amber, very slightly to slightly opalescent.

Reaction of 2.5% Solution at 25°C: pH 7.0 ± 0.2

Microbial Test Results

Incubate at 35±2 °C for 18 to 48 hours.

Organism (ATCC)	**Recovery**
Escherichia coli (25922)	Good
Enterococcus faecalis (19433)	Good
Pseudomonas aeruginosa (27853)	Good

Storage

Keep the container at 15-30 °C and prepared medium at 2-8 °C.