LB AGAR, LENNOX (7289)

Intended Use
LB Agar, Lennox is used in molecular genetic studies.

Product Summary and Explanation
LB Agar is nutritionally rich, developed by Lennox for growth and maintenance of pure cultures of recombinant strains of *E. coli*.[1] These strains are generally derived from *E. coli* K12, which are deficient in B vitamin production. 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. LB Agar provides all nutritional requirements of these organisms. LB Agar contains half the sodium chloride level of the Miller formulation of LB Agar, allowing the researcher to select the optimal salt concentration for a specific strain.[2]

Principles of the Procedure
The nitrogen, amino acids, and carbon sources are provided by Enzymatic Digest of Casein. Vitamins and certain trace elements are supplied by Yeast Extract. Sodium ions for transport and osmotic balance are provided by Sodium Chloride. Agar is the solidifying agent.

Formula / Liter
Enzymatic Digest of Casein ..... 10 g
Yeast Extract..... 5 g
Sodium Chloride ..... 5 g
Agar ..... 12 g
Final pH: 7.3 ± 0.2 at 25°C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precautions
1. For Laboratory Use.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions
1. Suspend 32 g of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.

Quality Control Specifications
Dehydrated Appearance: Powder is homogeneous, free flowing, and light beige.

Prepared Appearance: Prepared medium is trace to slightly hazy, yellow to gold, and may have a slight precipitate.

Expected Cultural Response: Cultural response on LB Agar, Lennox incubated aerobically at 35 ± 2°C and examined for growth after 18 - 24 hours.

Microorganism	Approx. Inoculum (CFU)	Response
Bacillus subtilis ATCC® 9372	10 - 300	Growth
Escherichia coli ATCC® 25922	10 - 300	Growth

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure
Consult appropriate references for recommended test procedures.[2]

Results
After sufficient incubation, the medium should show growth as evidenced by formation of colonies and/or a confluent lawn of growth.

Storage
Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

Expiration
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitation of the Procedure
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Packaging

LB Agar, Lennox	**Code No.**	**7289A**	**500 g**
		7289B	**2 kg**
		7289C	**10 kg**

References

1. **Lennox, E. S.** 1955. Transduction of linked genetic characters of the host by bacteriophage P1. Virology. **1**:190.
2. **Ausubel, F. M., R. Brent, R. E. Kingston, D. D. Moore, J. G. Seidman, J. A. Smith, and K. Struhl.** 1994. Current protocols in molecular biology, vol. 1. Current Protocols, New York, N.Y.

Technical Information
Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (517)372-9200 or fax us at (517)372-2006.

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