LURIA BROTH (7279)
(MILLER'S LB BROTH)

Intended Use
Luria Broth (Miller's LB Broth) is used in molecular genetic studies.

Product Summary and Explanation
Luria Broth is based on the Luria Broth formula described by Miller.[1] This medium is used for the growth and maintenance of *Escherichia coli* strains used in molecular microbiology procedures. Luria Broth Base is a nutritionally rich medium designed for growth of pure cultures of recombinant strains.[1] *E. coli* is grown to late log phase in LB Medium. Some plasmid vectors replicate to high copy numbers without selective amplification. Some vectors do not replicate so freely, and need to be selectively amplified. Chloramphenicol can be added to inhibit host synthesis and prevent replication of the bacterial chromosome.[2]

Luria Broth contains 10 g/L of sodium chloride. The medium may be aseptically supplemented with glucose.

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.

Formula / Liter
Enzymatic Digest of Casein ..... 10 g
Yeast Extract..... 5 g
Sodium Chloride ..... 10 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 25 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 clear and yellow to gold.

Expected Cultural Response: Cultural response in Luria Broth at 35°C after 18 - 24 hours incubation.

Microorganism	Response
Bacillus subtilis ATCC® 9372	growth
Escherichia coli ATCC® 25922	growth

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

Test Procedure
Consult appropriate references for recommended test procedures.[1,2]

Results
After sufficient incubation growth is evident by the appearance of turbidity.

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

Luria Broth (Miller's LB Broth)	**Code No.**	**7279A**	**500 g**
		7279B	**2 kg**
		7279C	**10 kg**

References

1. **Miller, J. H.** 1972. Experiments in molecular genetics. Cold Spring Harbor Laboratory. Cold Spring Harbor, New York.
2. **Sambrook, J., E. F. Fritsch, and T. Maniatis.** 1989. Molecular cloning: a laboratory manual, 2nd ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

Technical Information
Contact Acumedia Manufacturers, Inc. for Technical Service or questions involving dehydrated culture media preparation or performance at (410)780-5120 or fax us at (410)780-5470.