



PRODUCT SPECIFICATION SHEET

Luria Bertani Broth, Miller (DM410)

Intended Use

Luria Bertani Broth, Miller (DM410) is recommended for cultivation and maintenance of recombinant strains of *Escherichia coli* for genetic and molecular studies; also for isolation and cultivation of non-fastidious microorganisms.

Product Summary and Explanation

Luria Bertani Broth, Miller is nutritionally rich media designed for growth of pure cultures of recombinant strains, based on the formulae described by Miller.⁽¹⁾ This medium is slightly different with double amount of sodium chloride as compared to original media described by Lennox⁽²⁾ for cultivation and maintenance of recombinant strains of *Escherichia coli*. Strains derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis which are further modified by specific mutation to create auxotrophic strains and are therefore unable to grow on nutritionally deficient media.⁽³⁾

Principles of the Procedure

Luria Bertani Broth, Miller contains casein enzymic hydrolysate which provides carbon, nitrogen and other essential growth nutrients. Yeast extract supply essential B complex vitamins. Sodium chloride provides sodium ions for membrane transport and also maintains the osmotic equilibrium of the medium.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	10.00
Yeast extract	5.00
Sodium chloride	10.00
Final pH: 7.5 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

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

Directions

1. Suspend 25 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle. Dispense as desired.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow to amber coloured clear solution in tubes
Reaction of 2.5% Solution	pH : 7.5 ± 0.2 at 25°C
Gel Strength	Not Applicable

Expected Cultural Response: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours.

Sr.	Organisms	Results to be achieved
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No.		Inoculum (CFU)	Growth
1.	<i>Escherichia coli ATCC 25922</i>	50-100	good-luxuriant
2.	<i>Escherichia coli ATCC 23724</i>	50-100	good-luxuriant
3.	<i>Escherichia coli DH5 alpha MTCC 1652</i>	50-100	good-luxuriant

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

Test Procedure

Refer appropriate references for standard test procedures.

Results

Refer appropriate references and procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

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

Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Luria Bertani Broth, Miller

Product Code : DM410

Available Pack sizes : 500gm

References

1. Miller. 1972. Experiments in molecular genetics. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.
2. Lennox E.S./ 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190.
3. Atlas R.M., 1983, Handbook of Microbiological Media, Ed. By Parks L., CRC Press, Inc.

Further Information

For further information please contact your local MICROMASTER Representative.





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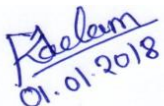


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