PRODUCT SPECIFICATION SHEE

Luria Agar (DM441)

Intended Use

Luria Agar (DM441) is recommended for cultivation and estimation of non-fastidious microorganisms.

Product Summary and Explanation

Luria Agar is a nutritionally rich media developed by Lennox[1] for the cultivation and maintenance of pure cultures of recombinant strains of *Escherichia coli*. These strains are generally derived from *E. coli* K12, which are deficient in B vitamin production and are further modified by specific mutation to create auxotrophic strains that are unable to grow on nutritionally deficient media. This medium is generally used for molecular and genetic studies, because of its nutritive capacity and simple composition, which can be easily altered as per specific requirements. This medium provides all the nutritional requirements for the growth of pure cultures of recombinant strains.

Principles of the Procedure

Luria Agar contains casein enzymic hydrolysate which provides nitrogen and carbon. Yeast extract is a source of vitamins (including B vitamins) and certain trace elements. Sodium ions for membrane transport and osmotic balance are provided by sodium chloride.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	10.00
Yeast extract	5.00
Sodium chloride	5.00
Agar	15.00
Final pH : 7.0 ± 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 35 grams of the medium in one liter of distilled water.
2. Heat to boiling to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. Mix well and pour into sterile Petri plates.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Yellow to amber coloured, clear to slightly opalescent gel forms in Petri plates
Reaction of 3.5% Solution	pH : 7.0 ± 0.2 at 25°C
Gel Strength	Firm, comparable with 1.5% Agar gel

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

Sr. No.	Organisms	Results to be achieved		
		Inoculum (CFU)	Growth	Recovery
1.	*Escherichia coli ATCC 23724*	50 -100	good-luxuriant	>=70%
2.	*Escherichia coli ATCC 25922*	50 -100	good-luxuriant	>=70%
3.	*Escherichia coli DH5 alpha MTCC 1652*	50 -100	good-luxuriant	>=70%

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

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Test Procedure
Refer to appropriate references for standard test procedures.

Results
After sufficient incubation, the agar medium should show growth as evidenced by formation of colonies and/or a confluent lawn of growth. Refer to appropriate references and test 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 Agar
Product Code : DM441
Available Pack sizes : 500gm

References

1. Lennox E.S., 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190.
2. Atlas R.M., 1993, 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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	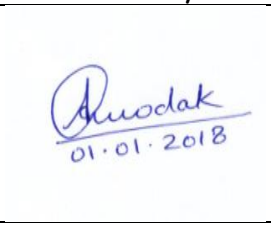	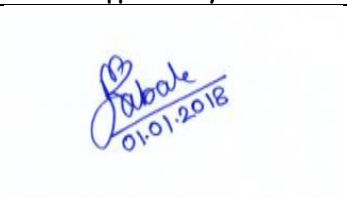
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