



Reference : 01-385

Scharlau Microbiology - Technical data sheet

Product :
LB AGAR (MILLER)

Specification

Solid medium for general purposes and recommended for use in molecular genetic studies of *Escherichia coli*.

Formula * in g/L

Casein peptone..... 10.0
Yeast extract..... 5.0
Sodium chloride..... 10.0
Agar..... 15.0

Final pH 7,0 ±0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 40 g of powder in 1 L of distilled water and bring to the boil stirring constantly. Distribute into suitable containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

LB Media was originally formulated by Luria and Burrous, but Lennox added sodium chloride to improve the osmolarity of the medium. Formulation of this solid medium is according to the Lennox formulation, modified by Miller, who increased the sodium chloride concentration.

Technique

Dilute and prepare samples and volumes as necessary according to specific protocols, established regulations, official directives and / or expected results. Each technician must evaluate the results according to the specifications established in his laboratory.

Quality control

Incubation temperature: 35 °C ± 2.0 **Incubation time:** 18-24 h

Inoculum: Practical range 100 ± 20 CFU. min. 50 CFU (productivity).

Microorganism	Growth	Remarks
---------------	--------	---------

<i>Escherichia coli</i> ATCC® 11775	Productivity ≥ 0.70-	
-------------------------------------	----------------------	--

<i>Escherichia coli</i> ATCC® 8739	Productivity ≥ 0.70-	
------------------------------------	----------------------	--

<i>Escherichia coli</i> ATCC® 25922	Productivity ≥ 0.70-	
-------------------------------------	----------------------	--

<i>Escherichia coli</i> ATCC® 35218	Productivity ≥ 0.70-	
-------------------------------------	----------------------	--

References

- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press, Inc. London.
- AUSUBEL, F.M., R. BRENT, R.E. KINGSTON, D.D. MOORE, J.G. SEIDMAN, J.A. SMITH & K. STRUHL (1994) Current protocols in molecular biology. Greene Pub. Assoc. Inc. Brooklyn. NY.
- GHERNA, R., P. PIANTA & R. COTE (Eds.) 1992. ATCC Catalogue of Bacteria and Bacteriophages. Media #1065, #1226, #1226, #1235, #1236, #1315, #1364. American Type Culture Collection. Rockville. MD. USA.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- LURIA, S.E. & J.W. BURROUS (1955) Hybridization between *Escherichia coli* and *Shigella*. J. Bacteriol. 74:461-476.
- LENNOX, E.S. (1955) Transduction of linked genetic character of the host bacteriophage P1. Virology 1:190-206.
- SAMBROOK, J., E.F. FITSCH & T. MANIATIS (1989) Molecular cloning: A laboratory manual. 2nd ed. Cold Spring Harbor Laboratory. Cold Spring Harbor. NY.
- MILLER, J.H. (1972) Experiments in Molecular Genetics. Cold Spring Harbor Laboratory. Cold Spring Harbor, N.Y.
- MILLER, J.H. (1992) A short course in bacterial genetics: A laboratory manual and handbook for *Escherichia coli* and related bacteria, p. 194-195. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+2 °C to 25 °C).