

Technical Information

Luria Agar

Product Code: DM 1557

Application: Luria Agar is used for the cultivation and maintenance of recombinant strains of *Escherichia coli* and may be used for routine cultivation of not particularly fastidious microorganisms.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Yeast extract	5.000
Sodium chloride	5.000
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Luria Agar prepared as by Lennox ⁽¹⁾ is used for cultivation and maintenance of recombinant strains of *Escherichia coli*. Because of its nutritive capacity and simple composition which can be easily altered as per specific requirements the media is generally used for molecular and genetic studies,. This is nutritionally rich for the growth of pure cultures of recombinant strains. Strains which are generally derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis and are further modified by specific mutation to create auxotrophic strains These bacteria are unable to grow on nutritionally deficient media.

Casein enzymic hydrolysate provides peptides and peptones while Vitamin B complex is provided by yeast extract. Sodium chloride provides sodium ions for the membrane transport and maintains osmotic equilibrium of the medium.

Methodology

Suspend 35.0 grams of powder media in 1000 ml distilled water. Shake well and heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Dispense as desired.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow to amber coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range

6.80-7.20

Cultural Response/Characteristics

DM 1557: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> ATCC 23724	50-100	Luxuriant	>=70%
<i>Escherichia coli</i> ATCC 25922	50-100	Luxuriant	>=70%
<i>Escherichia coli</i> DH5 alpha MTCC 1652	50-100	luxuriant	>=70%

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

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.

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use.

The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate

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