



Technical Data

HiEncap™ Luria Agar

EC557D

HiEncap™ Luria Agar is used for the cultivation and maintenance of *Escherichia coli* in molecular biology.

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

Directions

Each capsule contains 17.5 grams of medium. Suspend 1 capsule in 500 ml (2 capsules in 1000ml) distilled or purified water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Dispense as desired.

Principle And Interpretation

Luria Agar is prepared as described by Lennox (1) for cultivation and maintenance of recombinant strains of *Escherichia coli*. The media 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. The medium 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 that 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.

Quality Control

Appearance

Gelatin capsule containing cream to yellow coloured granular media

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

Quantity

Each capsule contains 17.5 grams sufficient for 500ml media.

Reaction

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

pH

6.80-7.20

Cultural Response

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

Cultural Response

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
<i>Escherichia coli</i> ATCC 23724	50-100	luxuriant	≥70%
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	≥70%

Escherichia coli DH5 α 50-100 luxuriant $\geq 70\%$
MTCC 1652

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

Reference

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.

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