



Technical Data

HiEncap™ Luria Bertani Broth, Miller (HiEncap™ Miller Luria Bertani Broth)

EC1245CCL

HiEncap™ Luria Bertani Broth, Miller is used for the cultivation and maintenance of recombinant strains of *Escherichia coli* for genetic and molecular studies and cultivation of other non fastidious microorganisms.

Composition**

| Ingredients | Gms / Litre |
|----------------------------|-------------|
| Casein enzymic hydrolysate | 10.000 |
| Yeast extract | 5.000 |
| Sodium chloride | 10.000 |
| Final pH (at 25°C) | 7.5±0.2 |

**Formula adjusted, standardized to suit performance parameters

Directions

Each capsule contains 6.25 gms of medium. Suspend 1 capsule in 250 ml (4 capsules in 1000 ml) distilled or purified water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Principle And Interpretation

Luria Bertani Broth, Miller (1) 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*. The media is nutritionally rich for the growth of pure cultures of recombinant strains. 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.

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

Quality Control

Appearance

Gelatin capsule containing cream to yellow coloured granular media

Colour and Clarity of prepared medium

Yellow to amber coloured clear solution in tubes

Quantity

Each capsule contains 6.25 grams of medium sufficient for 250 ml media

Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 7.5±0.2

pH

7.30-7.70

Cultural Response

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

Cultural Response

| Organism | Inoculum (CFU) | Growth |
|---|----------------|-----------|
| Cultural Response | | |
| <i>Escherichia coli</i> ATCC 23724 | 50-100 | luxuriant |
| <i>Escherichia coli</i> ATCC 25922 | 50-100 | luxuriant |
| <i>Escherichia coli</i> DH5 alpha MTCC 1652 | 50-100 | luxuriant |

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date 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., 1983, Handbook of Microbiological Media, Ed. By Parks L., CRC Press, Inc.

Revision : 00 / 2014



Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.