

Technical Information

Luria Bertani MiVeg Agar, Miller

Product Code : VM2151

Application:- Luria Bertani MiVeg Agar, Miller is recommended for cultivation and maintenance of recombinant strains of *Escherichia coli* for genetic and molecular studies and can be used for routine cultivation of not particularly fastidious microorganisms.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.000
Yeast extract	5.000
Sodium chloride	10.000
Agar	15.000
Final pH (at 25°C)	7.5±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Luria Bertani MiVeg Agar, Miller is prepared by using Miveg hydrolysate in place of casein enzymic hydrolysate thus the medium becomes free from BSE/TSE risks. It is the modification of Luria Bertani Agar formulated by Lennox (1) for cultivation and maintenance of recombinant strains of *Escherichia coli*. This medium is like the conventional media (2) is slightly different with double amount of sodium chloride. It is rich in nutrients which are required for the growth of pure cultures of recombinant strains. Strains which are generally derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis which are further modified by specific mutation to create auxotrophic strains and are unable to grow on nutritionally deficient media. This medium contains MiVeg hydrolysate which supplies nitrogen and carbon. Yeast extract serve as a source of Vitamin B complex. Sodium chloride provides sodium ions for the membrane transport and helps in maintaining osmotic balance of the medium.

Methodology

Suspend 40 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

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 4.0 % w/v aqueous solution pH: 7.5 ±0.2 at 25°C

pH range

7.30-7.70

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> ATCC 23724	50-100	luxuriant	>=70%
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	>=70%



Dehydrated Culture Media
Bases / Media Supplements

Escherichia coli DH5 alpha MTCC1652 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: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Lennox, E.S. 1955. Virology, 1.

2. Atlas, R. M. 2004. A Handbook of Microbiological Media. 3 ed.: CRC Press.

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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