

## Technical Information

### Luria Bertani MiVeg Broth, Miller

#### Product Code : VM2245

**Application:-** Luria Bertani MiVeg Broth, Miller is recommended for cultivation and maintenance of recombinant strains of *Escherichia coli* 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
Final pH ( at 25°C)	7.5±0.2

\*\* Formula adjusted, standardized to suit performance parameters.

#### Principle & Interpretation

Luria Bertani MiVeg Broth, Miller is prepared by using Miveg hydrolysate in place of casein enzymic hydrolysate thus the media becomes free from BSE/TSE risks. This medium (1) is slightly different with double amount of sodium chloride as compared to original media described by Lennox (2). It 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 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 2.5 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary 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

##### Colour and Clarity of prepared medium

Yellow to amber coloured clear to slightly opalescent solution in tubes

##### Reaction

Reaction of 2.5 % 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 18-24 hours

Organisms (ATCC)	Inoculum (CFU)	Growth
<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



Dehydrated Culture Media  
Bases / Media Supplements

**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., 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.

## Disclaimer :

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