Technical Information

Luria MiVeg Broth

Product Code : VM1575

Application:- Luria MiVeg Broth is recommended for the cultivation and maintenance of recombinant strains of *Escherichia coli* .

Composition

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

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Luria MiVeg Broth is prepared by adding vegetable peptones in place of animal based peptone thereby making the medium BSE-TSE risks free. This medium is the modification of Luria Broth which was formulated as described by Lennox (1,2) for cultivation and maintenance of recombinant strains of *E. coli.* This medium contains half the concentration of sodium chloride than in Luria Broth, Miller (3). Therefore as per choice, the sodium chloride concentration can be altered. Recombinant *E.coli* is specifically mutated to create an auxotrophic strain that cannot grow on a nutritionally deficient medium. Luria MiVeg Broth is a nutritionally rich medium due to the presence of MiVeg hydrolysate and yeast extract that favours these strains to grow rapidly. Sodium chloride maintains the osmotic balance of the medium.

Methodology

Suspend 20 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat if necessary to dissolve the medium completely. Dispense in tubes or flasks or as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Cream yellow coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Yellow to amber coloured, clear solution in tubes.

Reaction

Reaction of 2.0% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

pH Range

6.8 - 7.2

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth
Escherichia coli ATCC 23724	50-100	luxuriant
Escherichia coli DH5 alpha MTCC 1652	50-100	luxuriant
Escherichia coli ATCC 25922	50-100	luxuriant

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: 2-8^0 in sealable plastic bags for 2-5 day.

Further Reading

1.Luria, S. E. and W., Burrous J. 1957. J. Bacteriol., 74: 461-476.
2.Lennox, E.S. 1955. Virology, 1.
3.Miller. 1972. Cold Spring Harbor, N.Y. : Cold Spring Harbor Laboratory.

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