

# TMV 406 – LURIA BERTANI BROTH, MILLER (MILLER LURIA BERTANI BROTH) (VEG.)

#### **INTENDED USE**

For cultivation and maintenance of recombinant strains of *Escherichia coli* for genetic and molecular studies and may be used for routine cultivation of not particularly fastidious microorganisms.

# PRODUCT SUMMARY AND EXPLANATION

Luria Bertani Broth, Miller (Veg) is prepared by replacing casein enzymic hydrolysate with Veg hydrolysate which is free of BSE/TSE risks. Luria Bertani Broth, Miller (Veg) is slightly different with double amount of sodium chloride as compared to original media described by Lennox. This 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 unable to grow on nutritionally deficient media.

# **COMPOSITION**

Ingredients	Gms / Ltr	
Veg hydrolysate	10.000	
Yeast extract	5.000	
Sodium chloride	10.000	

### **PRINCIPLE**

This medium consists of Veg hydrolysate which provides nitrogen and carbon 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.

## **INSTRUCTION FOR USE**

- Dissolve 25.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Dispense as desired.

# **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.

**Appearance of prepared medium**: Yellow to amber coloured, clear to slightly opalescent solution in tubes.

pH (at 25°C) :  $7.5 \pm 0.2$ 

# **INTERPRETATION**

Cultural characteristics observed after incubation.

Microorganism	Strains	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
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Escherichia coli	25922 ATCC	50-100	Luxuriant	35-37°C	18-24 Hours
Escherichia coli	23724 ATCC	50-100	Luxuriant	35-37°C	18-24 Hours
Escherichia coli DH5 alpha	1652 MTCC	50-100	Luxuriant	35-37°C	18-24 Hours

#### **PACKAGING:**

In pack size of 500 gm bottles.

# **STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

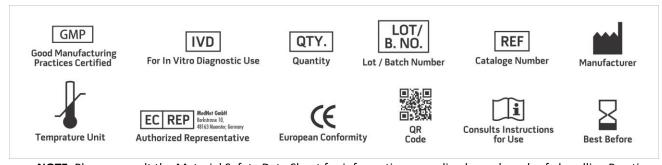
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

# **DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

# **REFERENCES**

- 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.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

\*For Lab Use Only
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