

## TSM 406 – LURIA BERTANI BROTH, MILLER (MILLER LURIA BERTANI BROTH)

### 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 is slightly different with double amount of sodium chloride as compared to original media described by Lennox 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.

### COMPOSITION

Ingredients	Gms / Ltr
Tryptone	10.000
Yeast extract	5.000
Sodium Chloride	10.000

### PRINCIPLE

Tryptone provides peptides 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.

### INSTRUCTION FOR USE

- Dissolve 25 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes or flasks as desired.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Cream to yellow homogeneous free flowing powder  
**Appearance of prepared medium** : Yellow to amber coloured clear solution in tubes  
**pH (at 25°C)** : 7.5±0.2

### INTERPRETATION

Cultural response observed after an incubation.

Microorganism	Strain	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
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<i>Escherichia coli</i>	23724 ATCC	50-100	Luxuriant	35 - 37°C	18-24 Hours
<i>Escherichia coli</i>	25922 ATCC	50-100	Luxuriant	35 - 37°C	18-24 Hours
<i>Escherichia coli</i> 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 10-25°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./ 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

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP MediNet GmbH Bockstrasse 10, 48163 Moenster, Germany Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

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

**\*For Lab Use Only**  
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