LB BROTH, MILLER

INTENDED USE
Remel LB Broth, Miller is a liquid medium recommended for use in qualitative procedures for cultivation and maintenance of *Escherichia coli* for purposes of cloning, plasmid propagation, and protein expression in standard molecular microbiological procedures.

SUMMARY AND EXPLANATION
LB Broth, Miller is based on the formulation developed by Miller for the growth of pure cultures used in genomic testing.[1] LB Broth, Miller is nutritionally formulated to enhance the growth of recombinant strains of *E. coli*. These strains are generally derived from *E. coli* K12 and will not grow on nutritionally deficient media because they are unable to produce vitamin B. LB Broth, Miller provides all the nutrients necessary for the growth of these organisms and contains two times the sodium chloride of the Lennox formulation, allowing the researcher to select the optimal salt concentration for a specific strain.[2]

PRINCIPLE
Tryptone supplies nitrogen, amino acids, and carbon necessary for the growth of bacteria. Yeast extract supplies vitamins, amino acids, and trace elements which enhance bacterial growth and plasmid yield. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium.

REAGENTS (CLASSICAL FORMULA)*
Tryptone	10.0 g	Sodium Chloride	10.0 g
		Yeast Extract	5.0 g

pH 7.0 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS
This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 25.0 grams of medium in 1000 ml of demineralized water and mix well.
2. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
3. Dispense into appropriate containers.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

QUALITY CONTROL
Each lot number of LB Broth, Miller has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL	INCUBATION	RESULTS
Escherichia coli ATCC® 25922	Ambient, 18-24 h @ 33-37°C	Growth
Escherichia coli ATCC® 8739	Ambient, 18-24 h @ 33-37°C	Growth

BIBLIOGRAPHY

1. Lennox, E.S. 1955. *Transduction of linked genetic characters of the host by bacteriophage P1*. Virology. 1:190.
2. Miller, J.H. 1972. *Experiments in molecular genetics.* Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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