LB Agar (Miller´s Modification)

#GCM05.0500 (500g)

(FOR RESEARCH ONLY)

Product: Dehydrated powder for the preparation of nutritionally rich solid medium (plates) for the growth and maintenance of recombinant strains of *Escherichia coli* in molecular biology studies.

Quantity: 500g

Formulation (g/L)

Tryptone:	10.00	Yeast Extract:	5.00
NaCl:	0.50	Bacteriological Agar:	15.00
Final pH (25ºC):	7.0 ± 0.2		

Appearance: Beige powder. Autoclaved medium should be amber, slightly opalescent

Storage: 2ºC – 25ºC. When not in use, keep container closed to avoid hydration.

QC: Each lot is tested by striking *Escherichia coli* ATCC 23724 onto a freshly prepared plate and observation after incubation at 35 ± 2ºC for 18 – 24h.

Bibliography:

Lennox (1955) Transduction of linked genetic characters of the host by bacteriophage P1. *Virology* **1**: 190-206
Sambrook, Fritsch and Maniatis (1989) In Molecular cloning: a laboratory manual, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.
Atlas and Parks (1993) In Handbook of Microbiological Media. CRC Press, Inc. London.

Preparation:

Add 30.5g of the dehydrated medium to one liter of distilled water. Mix well and dissolve by heating with regular agitation. Boil for 1 minute in order to dissolve completely. Dispense in appropriate containers and sterilize by autoclaving at 121ºC for 15 to 20 minutes. Cool to 45-50ºC and dispense into plates. Plates should be stored at 8ºC to 15ºC.

Supplements (Optional):

LB Agar (Miller´s Modification) is a rich growth medium, which contains all the nutritional requirements for *E.coli*. Tryptone and Yeast Extract are the sources for carbon, nitrogen, vitamins, minerals, and amino acids essential for growth, whereas sodium chloride supplies essential electrolytes for transport and osmotic balance. For faster growth, medium can be supplemented with glucose (0.1%) or glycerol (0.4%). Many supplements, including antibiotics, are heat-sensitive and cannot be autoclaved. These should be filter-sterilized and added to the medium after it has cooled down and prior to solidification.