Technical Data

Luria Bertani Agar Plate w/50µg/ml Chloramphenicol MP1151CH

Intended Use:

Recommended for the cultivation and maintenance of chloramphenicol resistant recombinant strains of *Escherichia coli* for genetic and molecular biology studies.

Composition**

Ingredients	Gms / Litre
Tryptone	10.000
Yeast extract	5.000
Sodium chloride	10.000
Chloramphenicol	0.050
Agar	15.000
Final pH (at 25°C)	7.5±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Principle And Interpretation

Luria Bertani Agar is prepared as described by Lennox (1) for cultivation and maintenance of recombinant strains of *Escherichia coli.* Luria Bertani Agar, Miller (2) is slightly different with double amount of sodium chloride. This medium is recommended for the selective growth of chloramphenicol resistant recombinant strain of *Escherichia coli.* Strains derived from *Escherichia coli* K12 are deficient in Vitamin B synthesis, they are further modified by specific mutation to create auxotrophic strains and are therefore unable to grow on nutritionally deficient media. Tryptone provides long chain amino acids, vitamins and other essential nutrients. Yeast extract provides vitamin B complex . Sodium chloride provides sodium ions for membrane transport and also maintains the osmotic equilibrium of the medium. Chloramphenicol inhibits gram negative and gram positive bacteria.

Type of specimen

Chloramphenicol resistant recombinant strains of *E.coli*

Specimen Collection and Handling

For Recombinant strain samples follow appropriate techniques for handling specimens as per established guidelines (1,2). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1.Individual organisms differ in their growth requirement and may show variable growth patterns on the medium

2.Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

3.It is recommended to store the plates at 24-30°C to avoid minimum condensation.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Sterile Luria Bertani Agar w/50µg/ml Chloramphenicol in 90mm disposable plates with smooth surface and absence of black particles/cracks/bubbles

Colour of medium

Yellow to amber coloured medium

Quantity of medium

25 ml of medium in 90 mm disposable plates.

pH

7.30-7.70

Sterility Check

Passes release criteria

Cultural Response

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

Organism	Inoculum (CFU)	Growth	Recovery
Recombinant strain of Escherichia coli (chloramphenicol resistant)	50-100	luxuriant	>=50%
Escherichia coli ATCC 25922 (00013*)	>=10^4	inhibited	0%

Storage and Shelf Life

On receipt store between 20-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference

1. Lennox E.S., 1955, Transduction of Linked Genetic Characters of the host by bacteriophage P1., Virology, 1:190.
2. Atlas R.M., 1993, Handbook of Microbiological Media, Ed. by Parks L., CRC Press, Inc.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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