

Mueller-Hinton (MH) Agar

Cat No: **111019**

Intended Use

Mueller-Hinton (MH) Agar is a standardized, non-selective medium primarily used for antimicrobial susceptibility testing, particularly the disk diffusion method recommended by organizations such as the Clinical and Laboratory Standards Institute (CLSI) or the Etest strips. It supports the growth of a wide variety of non-fastidious bacteria and provides consistent, reproducible results in antibiotic sensitivity testing due to its carefully controlled composition. The medium contains beef extract and casein hydrolysate to supply essential nutrients, while starch helps absorb toxic substances that may interfere with antibiotic activity. Its loose agar consistency promotes even diffusion of antibiotics from disks, making it ideal for determining bacterial resistance patterns. Mueller-Hinton Agar is widely used in clinical microbiology laboratories for routine antibiotic susceptibility testing of pathogens.

Principle

In this medium, beef extract powder and acid-hydrolyzed casein peptone supply nitrogen, vitamins, minerals, and amino acids necessary for microbial growth. Starch functions to absorb potentially toxic metabolites produced during bacterial growth, while bacteriological agar serves as the solidifying agent.

Storage

Recommended storage conditions: 2 to 25 °C. Store in cool dry place
 Recommended shipping conditions: 2 to 25 °C.

Production Standard

The formulation is prepared according to the recommendations of the current European, United States, and China Pharmacopoeia.

Precautions

1. The product may secrete water when exposed to temperature changes between low and room temperature, which is normal. Allow it to reach room temperature before use and, if possible, pre-dry it in a sterile drying oven.
2. Handle the plates with sterile gloves to prevent contamination during use.
3. Store the plates in a cool, dry place away from direct sunlight to maintain their integrity.
4. Avoid opening the plates until they are ready to be used in the sampling area to prevent airborne contamination.
5. Ensure the plates are used within their expiration date to guarantee accurate results.
6. Dispose of used plates according to biohazard waste protocols to prevent contamination and ensure safety.

Quality Control

The following were incubated at 35-37°C for 18-20 hours. The results are as follows:

Test Strains	Expected Results
<i>Escherichia coli</i> ATCC 25922	Good growth
<i>Pseudomonas aeruginosa</i> ATCC 27853	Good growth
<i>Staphylococcus aureus</i> ATCC 25923	Good growth
<i>Bacillus subtilis</i> ATCC 6633	Good growth

Product Content

Product Content	Cat No.	Size
Mueller-Hinton (MH) Agar	111019	10 plates/bag; 200 plates/case

Composition

Acid casein peptone	17.5 g
Starch	1.5 g
Beef extract powder	2.0 g
Bacteriological agar	17.0 g
Water	1000ml
Final pH (at 25°C)	7.3 ± 0.1

Shelf Life

Shelf life: 6 months from date of manufacture

Packaging

90mm x 10 plates per bag; 200 plates/case

Each plate filled with 20mL ± 2mL

Disposal

Please adhere to the respective regulations for the disposal of used culture medium (e.g., autoclave for 30 minutes at 121 °C)

References

1. EUCAST.(2013). European Society of Clinical Microbiology and infectious Diseases. "Routine internal quality control as recommended by EUCAST". Version 3,1.

Specially manufactured for:

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