Mueller Hinton Agar

REF.	Pack size
1406 001	100 gm
1406 002	500 gm

Intended Use

Mueller Hinton Agar is used for determination of susceptibility of microorganisms to antimicrobial agents isolated from clinical samples

Background

Bauer, Kirby, Sherris and Tuck recommended Mueller Hinton Agar for performing antibiotic susceptibility tests using a single disk of high concentration. Mueller Hinton Agar is mainly used for the primary isolation of Neisseria species. It is specified in FDA Bacteriological Analytical Manual for food testing. The major use of Mueller-Hinton Agar is for Antimicrobial Susceptibility Testing (AST). It has become the standard medium for the Bauer-Kirby method, and is specified by the Clinical & Laboratory Standards Institute (CLSI) formerly the National Committee for Clinical Laboratory Standards (NCCLS) and The European Committee on Antimicrobial Susceptibility Testing (EUCAST).

Principle

Casein acid hydrolysate and beef infusion supply amino acids and other nitrogenous substances, minerals, vitamins, carbon and other nutrients to support the growth of microorganisms. Starch acts as a protective colloid against toxic substances that may be present in the medium. Hydrolysis of starch during autoclaving provides a small amount of dextrose, which is a source of energy.

Components	gm/Liter
Casein Acid Hydrolysate	17.5
Beef Extract Powder	2.0
Starch	1.5
Agar	17.0

Final pH (at 25°C) 7.3 ± 0.1

Preparation, Storage and Stability

Store the dehydrated medium at 10-30°C and use before the expiry date on the label.Store the prepared medium at 2-8°C
After the desired amount of medium is taken out, replace the cap tightly to protect from hydration.

Procedure

1. Suspend 38 g of the powder in 1 L distilled water and mix well.
2.Heat with frequent agitation to dissolve the powder completely.
3.Sterilize by autoclaving at 121°C for 15 minutes.
4- Cool to 45-50°C then mix well and pour into sterile petri plates.

SYMBOLS IN PRODUCT LABELLING

EC REP Authorised Representative	Use by/Expiration Date
IVD For in-vitro diagnostic use	CAUTION. Consult instructions for use
LOT Batch Code/Lot number	Manufactured by
REF Catalogue Number	(Xi) - Irritant
Consult instructions for use	
Temperature Limitation	

Quality Control

Appearance

1-Dehydrated Appearance : beige,homogeneous and free flowing powder.

2-Prepared Appearance : Prepared medium is hazy and light to medium yellow.

3-Cultural Response : Cultural characteristics after 18-24 hours at 35-37°C.

Organisms	Growth
Escherichia coli	Good to luxuriant
Staphylococcus aureus	luxuriant
Enterococci faecalis	luxuriant
Pseudomonas aeruginosa	luxuriant

Interpretation of the results

Refer to appropriate documents for correct zone sizes.

Precautions

Numerous factors can affect results: inoculum size, rate of growth, medium formulation and pH. Strict adherence to protocol is required to ensure reliable results.

Bibliography

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