Mueller Hinton Agar

REF.	Pack size
624 01 100	100 gm
624 01 500	500 gm

Intended Use

Mueller Hinton Agar is used for antimicrobial disc diffusion susceptibility testing of common, rapidly growing bacteria by the Bauer- Kirby method. it is also used for the isolation of Neisseria species from the urethral exudates in men and endocervical secretions in women.

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, and procedures commonly performed on aerobic and facultatively anaerobic bacteria.

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. Boil with frequent agitation to dissolve the powder completely.DO NOT over heat.

3. Sterilize by autoclaving at 121°C for 15 minutes and mix well before pouring.

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
Neisseria gonorrheae	Good to 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

1. Mueller and Hinton, 1941, Proc. Soc. Exp. Bio. And Med; 48:330.

2. Bauer et al, 1966, Am. J. Clin. Patho., 45:493.

3. US Food and Drug Adm; 1998, Bacteriological Analytical Manual, 8th Ed; Rev. A, AOAC, International, Gaithersburg, Md.

4. National Committee for Clinical Laboratory Standards. 2000. Approved Standard: M2-A7.

Spectrum For Diagnostic Industries - Free Zone
Ismailia Free Zone, Block 5 .
Ismailia,Egypt
Tel: +2 064 3488 013 - +2 0643488 014
Fax: +2 064 3488 015
www.sdi-fz.com