Mueller Hinton Agar I CE (NCM2016)

Intended Use
Mueller Hinton Agar I is used for antimicrobial sensitivity testing by the disc diffusion method.

Description
A medium for antimicrobial sensitivity testing by the disc diffusion method. This medium, used in the technique of Bauer and Kirby, has been adopted by the National Committee for Clinical Laboratory Standards (NCCLS) in the USA as the definitive method for susceptibility testing. The medium has a very low thymine and thymidine content, making it suitable for trimethoprim and sulphonamide testing, controlled to ensure correct zone sizes with aminoglycoside and tetracyline antibiotics. The medium was originally formulated as a heat labile protein free medium for the isolation of pathogenic Neisseriaceae.

Typical Formulation

Acid Hydrolysed Casein	17.5 g/L
Starch	1.5 g/L
Agar	17.0 g/L

Final pH: 7.3 ± 0.2 at 25°C
Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution
1. Refer to SDS

Preparation
1. Suspend 38 grams of powder in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

Test Procedure
Surface inoculum and incubation as described by CLSI.

Quality Control Specifications
Dehydrated Appearance: Powder is homogenous, free-flowing and beige.

Prepared Appearance: Prepared medium is pale yellow clear gel (without blood), opaque red gel (with blood)

Minimum QC:
Staphylococcus aureus (antibiotic sensitivity zones) ATCC 25923
Escherichia coli WDCM or ATCC 25922

Results
Refer to appropriate references for results.

Expiration
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing or appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Effective Date: 2/26/2019
Revision: 0

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Limitations of the Procedures

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. Mueller, J.H. and Hinton, J. (1941). Protein-free medium for primary isolation of gonococcus and meningococcus. Proc. Soc. Exp. Biol. and Med., 48: 330-333.
2. Goodale, W.I., Gould, G. and Schwab, L. (1943). Laboratory Identification of sulphonamide resistant gonococcic infection. J.Am. Med. Ass., 123: 547-549.
3. American Public Health Association. (1950). Diagnostic Procedures and Reagents.
4. CLSI M02 Performance Standards for Antimicrobial Disk Susceptibility Tests, 13th Edition.
5. CLSI M100 Performance Standards for Antimicrobial Susceptibility Tests, 28th Edition.

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