

Mueller Hinton Broth

Cat #: MM-M-N214

For sensitivity testing to antibiotics in liquid media

Principles and uses:

Mueller Hinton Broth is used together with Mueller Hinton Agar to carry out the sensitivity testing of a great number of antimicrobial agents, for the determination of MIC (minimal inhibitory concentrations) of bacteria isolated for example from urine.

It was also developed for the cultivation of pathogenic Neisseria and other fastidious microorganisms. It has the same formula as Mueller Hinton Agar (Cat. MM-M-058) but can be used when the fluid medium is preferred.

The medium can be used with complete confidence because it is a rich nutrient medium able to grow fastidious organisms. The use of a medium with suitable growth characteristics is essential to test the susceptibility of microorganisms to antibiotics.

Beef infusion and Acid Casein peptone (H) provide nitrogen, vitamins, minerals and amino acids essential for growth. The starch in the medium acts as a growth factor, probably functioning like a colloid protector, and neutralizes toxic products that form during the development of the organisms.

Formula per Litre:

Acid casein peptone (H)	17.5g	Beef Infusion	2g
Maize Starch	1.5g		

Preparation:

Suspend 21 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. DO NOT OVEARHEAT.

Instructions for use:

For clinical diagnosis, the type of sample is bacteria isolated from urine.

- Inoculate and incubate at 35±2 °C for 18-24 hours.
- Reading and interpretation of results.

Quality control:

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7.4±0.2

Microbiological test:

Incubation conditions: (35±2 °C / 18-24 h).

Microorganisms	Specification
Listeria monocytogenes ATCC 19112	Good growth
Streptococcus pyogenes ATCC 19615	Good growth
Escherichia coli ATCC 25922	Good growth
Staphylococcus aureus ATCC 25923	Good growth
Pseudomonas aeruginosa ATCC 27853	Good growth
Enterococcus faecalis ATCC 33186	Good growth

Technical Data Sheet

MOLEQULE-ON[®]

Storage:

Once opened keep powdered medium closed to avoid hydration.



Bibliography:

Mueller, J. H. and Hinton J. Proc. Soc. Exp. Biol. and Med. 48:330-333. 1941. Olsen A.M. and Scott, W.J. Nature, 557; 337. 1946.
Bauer, A.L., W.M. Kirby, J.C. Sherris, and M. Turck. 1966. Antibiotic susceptibility testing by a standardized single disc method. Am. J. Clin. Pathol 45: 493-496.
Wood, G.L. and J.A. Washington, 1995 Antibacterial susceptibility tests, dilution and disk diffusion methods, p. 1327-1341. In Murray, P.R., E.J. Baron, M.A. Pgaller, F.C. Tenover

MOLEQULE-ON