

MUELLER-HINTON Broth

Media proposed by MUELLER and HINTON (1941) for testing the sensitivity of clinically important pathogens towards antibiotics or sulfonamides.

IVD

In Vitro Diagnostic Medical Device –

For professional use only



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Merck KGaA, 64271 Darmstadt

*See also General Instruction for Use
„How to use Dehydrated Culture Media“*

*For MSDS, warnings and precautions see our website:
www.merck-chemicals.com*

Principle

Microbiological method.

General Information

These culture media comply with the requirements of the WHO (1961, 1977) and DIN Norm 58930.

MUELLER-HINTON broth is employed for the determination of the MIC in serial dilution tests.

Mode of Action

The composition of the culture media provide favourable growth conditions, the media are almost totally devoid of sulfonamide antagonists.

Typical Composition (g/litre)

Meat infusion 2.0; casein hydrolysate 17.5; starch 1.5.

Preparation

Suspend 21 g/litre, dispense into test tubes, autoclave (15 min at 121 °C).

pH: 7.4 ± 0.2 at 25 °C.

The prepared broth is clear and yellowish.

Storage

Usable up to the expiry date when stored dry and tightly closed at +15 to +25° C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25 °C.

The broth is stable for 2 weeks at 2-8 °C.

Specimen

e.g. Isolated bacteria from urine.

Clinical specimen collection, handling and processing, see general instructions of use. MUELLER-HINTON Agar:

Experimental Procedure and Evaluation

Carry out the sensitivity or resistance test as directed.

Incubation for 24 h at 35 °C aerobically.

Literature

BAUER, A.W., KIRBY, W.M.M., SHERRIS, J.C., a. TURCK, M.: Antibiotic susceptibility testing by a standardized single disk method. - Amer. J. Clin. Pathol., 45; 493-496 (1966).

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ERICSSON, H.M., a. SHERRIS, J.C.: Antibiotic Sensitivity Testing. Report of an International Collaborative Study. - Acta path. microbiol. scand., B. Suppl., 217; 90 pp (1971).

JENKINS, R.D., STEVENS, S.L., CRAYTHORN, J.M., THOMAS, T.W., GUINAN, M.E., a. MATSEN, J.M.: False susceptibility of enterococci to aminoglycosides with blood-enriched Mueller-Hinton agar for disk susceptibility testing. - J. Clin. Microbiol., 22; 369-374 (1985).

MUELLER, H.J., a. HINTON, J.: A protein-free medium for primary isolation of the Gonococcus and Meningococcus. - Proc. Soc. Expt. Biol. Med., 48; 330-333 (1941).

World Health Organization: Standardization of methods for conducting microbial sensitivity tests (Technical Report Series No. 210, Geneva 1961).

World Health Organization: Requirements for antibiotic susceptibility tests. I. Agar diffusion tests using antibiotic susceptibility discs. (Technical Report Series No. 610, Geneva 1977).

Ordering Information

Product	Ordering No.	Pack size
MUELLER-HINTON-Broth	1.10293.0500	500 g

Quality control

Test strains

Test strains	Growth
Escherichia coli ATCC 25922	good / very good
Staphylococcus aureus ATCC 25923	good / very good
Pseudomonas aeruginosa ATCC 27853	good / very good
Enterococcus faecalis ATCC 33186	good / very good
Bacillus subtilis ATCC 6633	good / very good (Antagonist test!)
Streptococcus pyogenes ATCC 12344	good / very good
Streptococcus pneumoniae ATCC 6301	fair / good
Listeria monocytogenes ATCC 19118	fair / good