Technical Data Sheet

# CE MUELLER-HINTON Agar

## Ordering number: 1.05437.0500

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

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

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

**IVD** in vitro diagnosticum - For professional use only

### Mode of Action

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

In order to improve the growth of fastidious microorganisms, blood can be added to MUELLER-HINTON agar. According to JENKINS et al. (1985), this may lead to false results when testing the susceptibility of enterococci to aminoglycosides.

### Typical Composition

| | |
|---|---|
| Meat infusion | 2.0 g/l |
| casein hydrolysate | 17.5 g/l |
| starch | 1.5 g/l |
| agar-agar | 13.0 g/l |

### Preparation

Suspend 34.0 g/litre, autoclave 121°C 15 min., if required cool to 45-50 °C and add 5 - 10 % definibrated blood, pour plates.

pH: 7.4 ± 0.2 at 25 °C.

Without blood, the plates are clear to opalescent and yellowishbrown.

### Specimen

e.g. Isolated bacteria from urine,

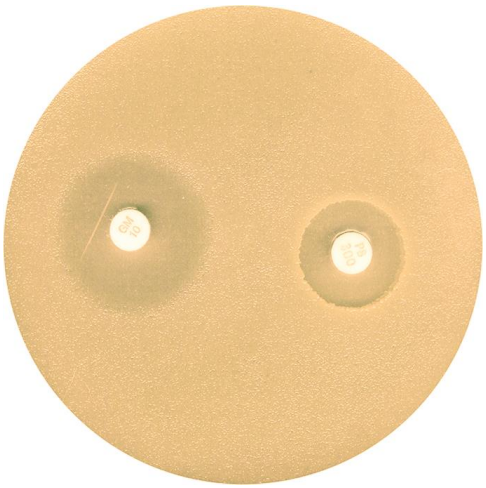
Clinical specimen collection, handling and processing, see general instructions of use.

## Experimental Procedure and Evaluation

Carry out the sensitivity or resistance test as directed.

Incubation for 24 h at 35 °C aerobically.

Staphylococcus aureus ATCC 25923



Escherichia coli ATCC 25922

## 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.

## Quality Control

| Control Strains | ATCC # | Incubation | Expected Results |
|---|---|---|---|
| *Escherichia coli* | 25922 | 24 h at 35 °C | |
| *Staph. aureus* | 25923 | 24 h at 35 °C | |
| *Pseud. aeruginosa* | 27853 | 24 h at 35 °C | |
| *Enteroc. faecalis* | 33186 | 24 h at 35 °C | |

Please refer to the actual batch related Certificate of Analysis.

## 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).

DIN Deutsches Institut für Normung: Methoden zur Empfindlichkeitsprüfung von bakteriellen Krankheitserregern (außer Mycobakterien) gegen Chemotherapeutika. Agar-Diffusionstest. - DIN 58940.

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 microbic 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 | Cat. No. | Pack size |
|---|---|---|
| MUELLER-HINTON Agar | 1.05437.0500 | 500 g |
| MUELLER-HINTON Agar | 1.05437.5000 | 5 kg |
| Merckoplate® MUELLER-HINTON Agar | 1.10414.0001 | 20 plates |

Merck KGaA, 64271 Darmstadt, Germany
Fax: +49 (0) 61 51 / 72-60 80
mibio@merckgroup.com
**www.merckmillipore.com/biomonitoring**

Find contact information for your country at:
**www.merckmillipore.com/offices**
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