

## Specification

Medium used for Antibiotic and Sulfonamides Susceptibility Testing, according to the Kirby-Bauer and the Ericsson methods.

## Presentation

20 Prepared Plates  
90 mm  
with: 21 ± 2 ml

### Packaging Details

1 box with 2 packs of 10 plates/pack. Single cellophane.

### Shelf Life

3,5 months

### Storage

2-14°C

## Composition

Composition (g/l):

Hydrolysate of casein..... 17.5  
Beef Extract..... 2.00  
Starch..... 1.50  
Agar..... 17.0

## Description /Technique

- Adjust suspensions of microorganisms to be tested to a density equivalent to a 0.5 MacFarland standard. Inoculate the plates with a soaked swab by spreading each inoculum onto the surface evenly in three directions according to the Kirby-Bauer methodology.
- After having allowed the agar surface to dry for 10 to 15 minutes, apply the antibiotic disks or the E-test strips to the surface.
- Incubate the plates right side up at time and temperature according to the microorganism tested.
- Read plates after the incubation period only if sufficient growth is seen and the inhibition zones or ellipses are clearly visible.
- Read the MIC where the ellipse or zone intersects the scale or the diameter of the standardized inhibition zones.
- Each laboratory must evaluate the results according to their specifications, isolates tested, antibiotics applied and CLSI interpretative guidelines or technical E-Test manual.

## Quality control

### Physical/Chemical control

Color : Yellowish

pH: 7.3 ± 0.2 at 25°C

### Microbiological control

Spread with swab from 0.5 Mac Farland inoculum.

Aerobiosis. Incubation at 35 ± 2°C, reading after 18-24 hours

### Microorganism

*Escherichia coli* ATCC® 25922, WDCM 00013

*Ps. aeruginosa* ATCC® 27853, WDCM 00025

*Enterococcus faecalis* ATCC® 29212, WDCM 00087

*Stph. aureus* ATCC® 29213, WDCM 00131

### Growth

Inhibition halo

Inhibition halo

Inhibition halo

Inhibition halo

### Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

**Bibliography**

- BAUER, A.L., W.M.M. KIRBY, J.C. SHERRIS & M. TURCK (1966) Antibiotic susceptibility testing by a standardized single disc method. *A. J. Clin. Pathol* 45:493.
- BARRY, A.L., M.D. COYLE, C. THORNBERRY, E.H. GARLACH & R.W. HAWKINSON (1979) Methods of measuring zones of inhibition with Bauer-Kirby disk-susceptibility test. *J. Clin. Microbiol.* 10:885-889.
- CFR (1972) Rules and Regulations. 37:20525. Washington. DC. USA.
- CLSI (2006) Document M6-A2. Protocols for evaluating dehydrated Mueller-Hinton Agar: Approved Standard. 2<sup>nd</sup> ed. Clinical and Laboratory Standards Institute. Pennsylvania. USA.
- CLSI (2006) Document M2-A9. Performance standards for antimicrobial disk susceptibility tests: Approved Standard. 9<sup>th</sup> ed. Clinical and Laboratory Standards Institute. Pennsylvania. USA.
- ERICSSON & SHERRIS (1971) *Acta Pathol. Microbiol. Scand Suppl* 217 p:90.
- EUCAST.(2013). European Society of Clinical Microbiology and infectious Diseases. "Routine internal quality control as recommended by EUCAST" . Version 3,1.
- HINDLER, J. (1998) Antimicrobial Susceptibility Testing in Essential Procedures for Clinical Microbiology. ASM Press Washington. DC. USA.
- MUNRO, S. (1995) Disk diffusion Susceptibility Testing, in *Clinical Microbiology Procedures Handbook*, H.D. Isenberg (ed) APHA Washington. DC. USA.
- MILLER, J.M, C. THORNBERRY & C.N. BAKER (1984) Disk Diffusion susceptibility test troubleshooting guide. *Lab. Med.* 15:183-185.
- NEUMAN, M.A., D.F. SAMM, C. THORNSBERRY & I.E. MCGOWAN (1991) New developments in antimicrobial agent susceptibility testing: A practical guide. ASM. Washington. DC. USA.
- THORNSBERRY, C., W.G. GAVAN, E.H. GERLACH & J.C. SHERRIS (1977) *Cumitech* 6. ASM. Washington.
- WHO (1977) Requirements for antibiotic susceptibility tests. Technical Report Series No. 610. Geneva.
- WOODS, G.L. & J.A. WASHINGTON (1995) Antibacterial Susceptibility Tests: dilution and disk diffusion methods. In Murray, Baron, Pfaller, Tenover & Tenover eds. *Manual of Clinical Microbiology*. 6<sup>th</sup> ed. ASM. Washington. DC. USA.