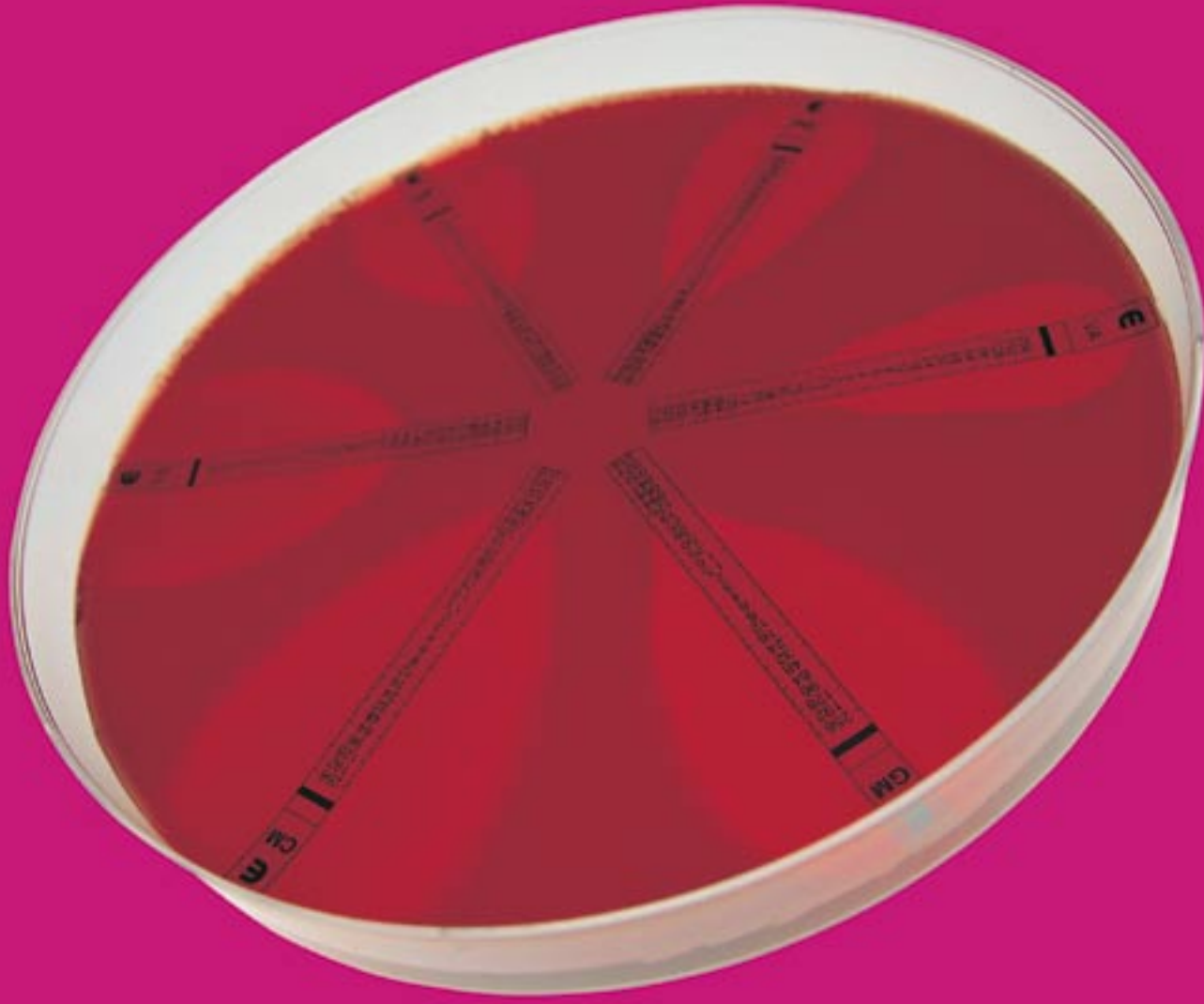


the Solution for Antimicrobial Resistance Testing

**Etest**<sup>®</sup>



## Etest

### Novel Antimicrobial Gradient Technique

Etest is a unique patented antimicrobial gradient technique. Essentially, 15 reference MIC dilutions of an antibiotic have been repackaged with innovative dry chemistry technology onto a plastic strip. The predefined gradient provides precise and accurate assessment of antimicrobial activity against both fastidious and non-fastidious microorganisms.

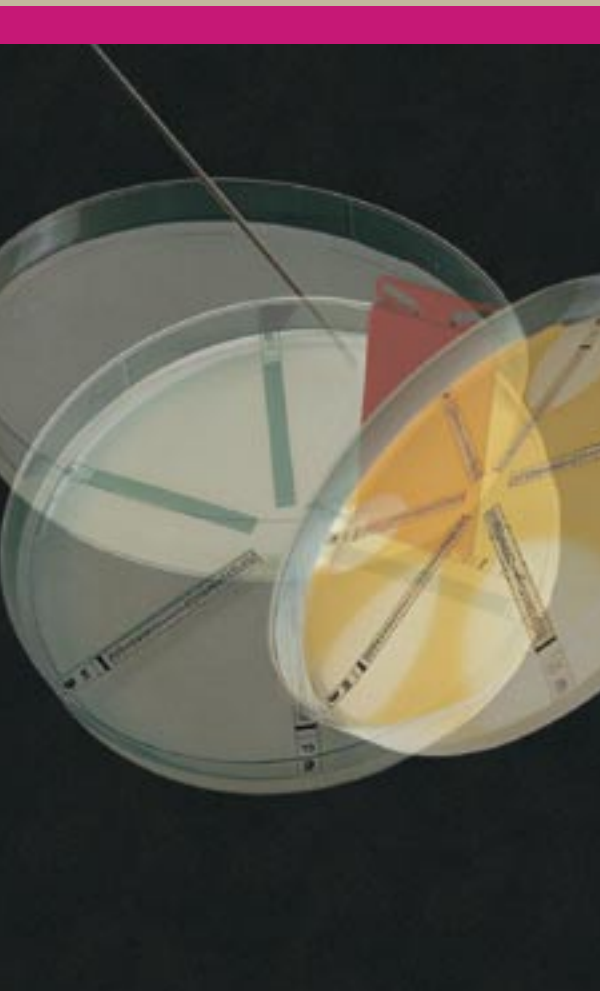
The procedure is straightforward. The reagent strip is placed onto the surface of an inoculated agar plate. A stable and continuous antibiotic gradient is formed beneath the strip. After incubation, the resulting inhibition ellipse intersects the scale at the MIC i.e. Minimum Inhibitory Concentration in  $\mu\text{g/ml}$ .

Unlike most susceptibility tests today, Etest is a macromethod that can be easily adapted to conditions optimal for resistance detection.

Etest has been acknowledged worldwide as a significant innovation for **Antimicrobial Resistance Testing**. In an era of reemerging infections and escalating resistance, Etest has deservedly been described as

“tests that may have a special advantage for resistance surveillance because they have a continuous concentration gradient and are able to show subtle changes in susceptibility. The wide concentration gradients of these tests cover the MIC ranges of susceptibility of a wide variety of pathogens and allow both low level and high level resistance to be detected. Etest is reportedly easy to use in most laboratory settings and requires no complicated procedures”.

Quoted from:  
New Technologies for Infection Diagnosis and Control  
Impacts of Antibiotic Resistant Bacteria  
Office of Technology Assessment Congress of the United States  
OTA-H-629 (Washington DC, US Government Printing Office, September 1995)



Inoculate the agar plate, apply the strip and read the MIC after incubation.

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It is imperative to detect low level resistance in the in vitro test before during treatment of the ICU patient.

## Antimicrobial Resistance Testing

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Treatment of fatal infections in immunocompromised hosts, inaccessible body sites and intensive care patients should be based on MIC data and accurate resistance detection. Etest readily provides the MIC needed to guide therapy selection and monitor dosage in relation to toxicity, patient status and other pharmacokinetic, pharmacodynamic and pharmacoeconomic factors.

Etest can be used for individual patient specimens and periodic epidemiology studies. It can be easily tailored to antibiograms for different specimens, species and clinical priorities. Used appropriately, Etest can have a significant impact on the quality of patient care, cost savings and promote a rational use of antimicrobial agents.

Etest is a method of choice for fastidious organisms such as *S. pneumoniae*, other streptococci, anaerobes, *H. influenzae* and many others. It is often used as the primary method to test key drugs for ICU blood isolates. Etest complements methods where certain drug/organism combinations may be contraindicated or when unusual and questionable results are obtained.

Global surveillance programmes have used Etest to look for MRSA and MRSE, VRE, PRP, and lately for VISA and VISE. Resistance patterns among Gram negative nosocomial pathogens in ICUs and complicated respiratory tract pathogens have also been effectively monitored with Etest.

Clinical trials with new antibiotics and newer classes of compounds are conducted using Etest rather than qualitative methods or dilution tests with limited concentrations.





## Technical Specifications

Etest consists of a preformed antimicrobial gradient on a plastic strip. MIC ranges vary from 0.00025–4, 0.002–32, 0.016–256, 0.032–512 and 0.064–1024 µg/ml. Reagent strips for at least 100 antimicrobial agents are available.

## Product Support

Technical support is provided directly from Sweden to users worldwide. Guides for specific organisms, materials and methods, reading, trouble shooting and applications, together with a quarterly newsletter, Etest News, are regularly published.

Workshops are conducted frequently in many countries. Topics cover the novel gradient technology, problems with current susceptibility testing methods and how Etest can provide solutions to address laboratory, microbial and clinical needs.

Users can access AB BIODISK's technical support department through a 24 hour fax service to +46-8 83 81 58 or email to [etest@biodisk.se](mailto:etest@biodisk.se).

## References

The product has been validated in 1 000 studies, 300 of which have been published in clinical journals and others presented at major scientific congresses. Etest has been cleared or approved by many national regulatory bodies. It is acknowledged in textbooks such as the Manual of Clinical Microbiology, Antibiotics in Laboratory Medicine, Clinical Microbiology Procedures Handbook and Principles and Practice of Clinical Anaerobic Bacteriology.

Etest<sup>®</sup> is a registered trademark of AB BIODISK and patented in all major markets.

## AB BIODISK

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