

Today microbiology laboratories know that **standardization, reproducibility and consistency of results is essential!**

Selecting an effective antimicrobial drug is essential to treat bacterial infections. When it comes to disc diffusion testing every step from inoculum preparation, growth media, availability of antimicrobials to the use of reference micro-organisms has a significant impact on test interpretation.



Because selecting the right antibiotic matters, BD offers a full range of quality products and reagents to ensure standardised and reliable antimicrobial disc susceptibility testing.

Every element of the BD Solution for Antimicrobial Disc Susceptibility Testing is controlled from start to end, ensuring you a high and consistent quality of products and reagents. All components have been carefully developed and are produced to conform to the most recent CLSI\* standards, and to comply with EUCAST\*\* guidelines.

Our ISO 9001, ISO 13485 and Good Manufacturing Practices ensure continuous improvement and provide assurance that our products will consistently meet your highest expectations and needs.

\* CLSI : Clinical and Laboratory Standards Institute  
\*\* EUCAST : European Committee on Antimicrobial Susceptibility Testing.

Antimicrobial Disc Susceptibility Testing  
**Products at a Glance**

Inoculum standardization		
Product	Pack Size	Cat. No.
Saline, normal, 5 mL	10 tubes	221818
Saline, normal, 5 mL	100 tubes	221819
McFarland turbidity Standard No. 0.5	10 tubes	297298
Sterile swab, polyester tip, wooden shaft, individual wrapped	1,000 swabs	220690
Disposable inoculation loops, 10 µl	250 loops	220216
Disposable inoculation loops, 10 µl	1,000 loops	220217
Disposable inoculation loops, 1 µl	250 loops	220214
Disposable inoculation loops, 1 µl	1,000 loppes	220215
Media for Antimicrobial Susceptibility Testing		
Mueller-Hinton II Agar, 90 mm	20 plates	254032
Mueller-Hinton II Agar, 90 mm	120 plates	254081
Mueller-Hinton II Agar with 5% sheep blood, 90 mm	20 plates	254030
Mueller-Hinton II Agar with 5% sheep blood, 90 mm	120 plates	254080
Mueller-Hinton II Agar, 150 mm	20 plates	254062
Mueller-Hinton II Agar with 5% sheep blood, 150 mm	20 plates	255080
Mueller-Hinton II Agar with 5% horse blood/20 mg/L NAD, 90 mm	20 plates	257491*
Mueller-Hinton II Agar, 120 mm Quad	20 plates	254518
Mueller-Hinton II Agar with 5% sheep blood, 120 mm Quad	20 plates	254517
Chocolate II (GC) + IsoVitaleX Agar, 90 mm	20 plates	254060
Chocolate II (GC) + IsoVitaleX Agar, 90 mm	120 plates	254089
Chocolate II (GC) + IsoVitaleX Agar, 150 mm	8 plates	221240
Haemophilus Test Medium Agar, 90 mm	20 plates	254058
Haemophilus Test Medium Agar, 150 mm	8 plates	221954
Mueller-Hinton Agar, Dehydrated, Difco	500 g	225250
Mueller-Hinton Agar, Dehydrated, Difco	2 Kg	225220
Mueller-Hinton Agar, Dehydrated, Difco	10 Kg	225230
Mueller-Hinton II Agar, Dehydrated, BBL	500 g	211438
Mueller-Hinton II Agar, Dehydrated, BBL	2.27 Kg	211441
Mueller-Hinton II Agar, Dehydrated, BBL	11.35 Kg	212257
BD Sensi-Disc™ Dispensers		
Single Disc Dispenser	1	260457
6 place dispenser for 90 mm plates (box included)	1	260661
8 place dispenser for 90 mm plates (box included)	1	260660
8 place dispenser for 90 mm plates	1	4301010
12 place dispenser for 150 mm plates (box included)	1	260640
16 place dispenser for 120 mm Quad plates (box included)	1	26xxxx*
Dispenser box, for 6 and 8 place dispensers	1	4310094
BD Microtrol™ Quality Control Strains		
<i>Enterococcus faecalis</i> ATCC 29212	25 discs	254602
<i>Escherichia coli</i> ATCC 25922	25 discs	254986
<i>Escherichia coli</i> ATCC 35218	25 discs	254607
<i>Haemophilus influenzae</i> ATCC 49247	25 discs	254644
<i>Haemophilus influenzae</i> NCTC 8468 (ATCC 9934)	10 discs	257537
<i>Haemophilus influenzae</i> NCTC 12699 (ATCC 492477)	10 discs	257441
<i>Klebsiella pneumoniae</i> ATCC 700603 (ESBL)	10 discs	254656
<i>Neisseria gonorrhoeae</i> NCTC 12700 (ATCC 49226)	10 discs	257551
<i>Pseudomonas aeruginosa</i> ATCC 27853	25 discs	254992
<i>Staphylococcus aureus</i> ATCC 29213	25 discs	254996
<i>Staphylococcus aureus</i> ATCC 25923	25 discs	254995
<i>Staphylococcus aureus</i> ATCC 43300 (MRSA)	10 discs	254658
<i>Staphylococcus aureus</i> NCTC 12493 (MRSA)	10 discs	257552
<i>Streptococcus pneumoniae</i> ATCC 49619	10 discs	254657

\* Coming soon



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Effective antimicrobial therapy

Reliable Inhibition Zones

Wide Choice of Antimicrobial Discs

High Quality Culture Media

Inoculum Standardization

Helping all people live healthy lives

Complete Solutions for Antimicrobial  
Disc Susceptibility Testing

Step by step to top quality results.





# Today microbiology laboratories know that **standardization, reproducibility and consistency of results is essential!**

When it comes to disc diffusion, we offer a complete range of reagents and products that will help your lab:

- 1 Standardize the inoculum
- 2 Use optimal media
- 3 Ensure antimicrobial integrity and activity
- 4 Maintain reproducibility and consistency of results

## Inoculum Standardization

Variation in inoculum density can significantly alter the final in-vitro result, leading to the selection of an ineffective antibiotic.

Without standardization, results are not reproducible and do not comply to international and/or national guidelines.

0.5 McFarland turbidity standard tube together with the Wickerham card ensures correct inoculum turbidity.



## High Quality Culture Media

Accuracy of interpretation is directly linked to the components of the media:

- High levels of thymidine & thymine in Mueller Hinton (MH) Agar lead to smaller inhibition zones to trimethoprim, sulfonamides & diaminopyrimidines <sup>(1, 2)</sup>
- Content variations of Ca<sup>2+</sup> & Mg<sup>2+</sup> modify sensitivity to certain antibiotics <sup>(3, 4, 5)</sup>
- Agar concentration & quality
- Media pH & thickness

**BBL™ and Difco™ culture media**

- Controlled levels of thymine, thymidine and divalent cations
- Controlled agar depth, pH, and deionized water
- QC testing with reference microorganisms
- Complete range of media for rapid growing and fastidious organisms:
  - MH II agar
  - MH II agar with 5% sheep blood
  - HTM agar
  - Chocolate II (GC) agar with IsoVitaleX™ enrichment



## Wide Choice of Antimicrobial Discs of High Quality

If effective activity is lower than stated, false susceptibility may be reported.

Clinicians request new antimicrobials to be tested.

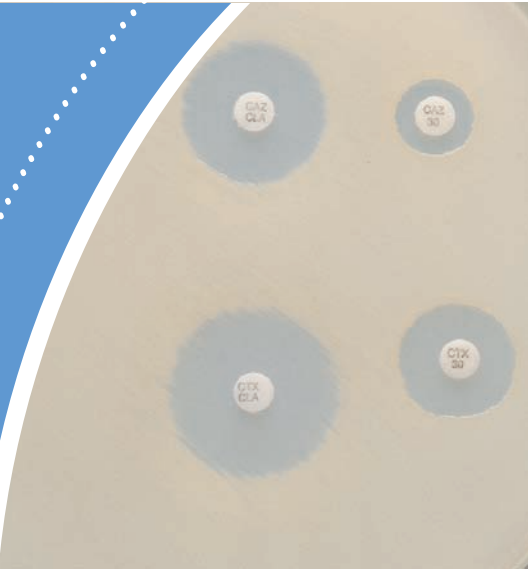
For efficient workflow, dispensers should be easy to use and robust.

**Sensi-Disc™ Susceptibility Discs**

- Wide range
- Continuous addition of new antimicrobials
- Accurate antimicrobial potency
- High-quality paper discs
- For easier interpretation, both sides of disc marked with antimicrobial name and content
- To avoid dispenser blockage, last disc of cartridge marked with an X

**Sensi-Disc™ Dispensers**

- Solid and robust
- Manipulated with one hand
- Convenience of single, 6, 8 and 12 disc dispensers



Reliable Inhibition Zones  
Effective antimicrobial therapy



**BD Microtrol Quality Control Organisms**  
Quality Control from Start to End.

Available as first generation pure strains of viable freeze-dried bacteria from recognized culture collections (ATCC®, NCTC®).

The establishment and maintenance of QC with BD Microtrol, allows the micro lab to produce results with the assurance that their respective procedures are under control.



Ref:

1. Koch, A.E., and J.J. Burchall. Appl. Microbiol. 22: 812-817. 1971
2. Ferone, R., et al. Antimicrob. Agents Chemother. 91-98. 1975
3. Reller, L.G et al. J. Infect. Dis. 130:454-463. 1974
4. Pollock, H.M. et al. Antimicrobiol. 2:135-138. 1979
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