



ACCURACY MATTERS »»

Deliver automated antibiotic susceptibility testing (AST) and rapid identification (ID) results without sacrificing accuracy

MicroScan Microbiology Systems



»» Move healthcare forward.



“In the first year we had the MicroScan [system], we saved over \$70,000 in send-out costs alone because the MicroScan [system] could identify isolates that our previous system could not.”

Jennifer Blakeney, M.T. (ASCP), Lead Microbiology/Immunology Technologist
Beebe Medical Center Laboratory



ACCURACY MATTERS

Preventing the spread of antimicrobial-resistant (AMR) bacteria within hospitals and communities requires correct detection and identification of AMR pathogens as quickly as possible. MicroScan microbiology systems **detect emerging resistance as it occurs**, providing accurate and timely results without reliance on historical data.

Get answers right the first time:

> Trusted detection

Advanced Minimum Inhibitory Concentration (MIC) technology detects emerging resistance as it occurs, providing accurate results without reliance on historical data or virtual MIC

> Powerful reporting

MIC and susceptibility results correlate with classical broth microdilution in the most trusted way^{1,2}

> Real-time alerts

LabPro Alert_{EX} automates detection of atypical results for quick recognition and reporting



Accuracy for better patient outcomes

Backed by more than 35 years of ID/AST testing experience, MicroScan microbiology systems improve workflow by minimizing the need for confirmatory retesting and providing accurate, first-time results for laboratories of every size.



ACCURATE SOLUTIONS FOR EVERY LABORATORY

MicroScan systems

Designed to work in laboratories of every size, **MicroScan microbiology instruments use a single-panel format that enables scalability.** With unmatched microbiology and laboratory workflow expertise, Beckman Coulter serves as a trusted partner to deliver solutions that meet your evolving requirements.

MicroScan WalkAway *plus* System

- › Ideal for mid- to high-capacity laboratories
- › 40- and 96-panel capacity models
- › Automated incubation, test interpretation and reagent control
- › Conventional overnight ID/AST and/or specialty and rapid ID testing on one instrument



autoSCAN-4 System

- › Ideal for small-capacity laboratories or backup testing
- › Automated read of bacterial ID and susceptibility in seconds
- › Testing for difficult and slow-growing species
- › Automatic recording and interpretation of instrument results by computerized system



MicroScan delivers accurate emerging resistance detection for the toughest pathogens, including vancomycin-intermediate *Staphylococcus aureus* (VISA), vancomycin-resistant *Staphylococcus aureus* (VRSA) and methicillin-resistant *Staphylococcus aureus* (MRSA).

“The MicroScan unit is an overnight testing system that is a true growth/no growth system, which gives you the most accurate results. It offers the flexibility of either a full MicroScan MIC panel or combination identification and susceptibility panel. The MicroScan [system] has been very consistent and reliable, attested by the fact that we have 10 of them.”

James Clark, M.T. (ASCP), Microbiology Manager
Alverno Clinical Laboratories



MicroScan panels provide superior accuracy in detection of carbapenemase-resistant Enterobacteriaceae (CRE), a globally and CDC-identified health risk.^{1,3,4}

MicroScan panels

Today's microbiology laboratories face continuous change—change in antimicrobial resistance, change in formularies and therapies, and change in the healthcare landscape. For more than 35 years, **MicroScan systems have provided gold-standard bacterial identification and susceptibility products, confronting emerging resistance with speed and accuracy.** Count on MicroScan systems for unmatched experience, expertise and selection.

MicroScan offers a broad offering of panel formats:

- › Conventional overnight panels
- › Rapid ID panels
- › Specialty ID panels
- › MICroSTREP *plus* panels
- › ESBL *plus* panels

More Choices. More Answers.

Maximize your workflow flexibility with a choice of three panel testing options:

- › AST-only
- › Combo ID/AST
- › ID-only

MicroScan panels adhere to guidelines established by all the major microbiology standards organizations including European Committee on Antimicrobial Susceptibility Testing (EUCAST) and Clinical and Laboratory Standards Institute (CLSI).

“The rapid negative ID panels are very useful to us. We see a lot of challenging organisms with non-fermenters and these panels do an awesome job with these organisms.”

Angela Beth Prouse, M.S. M.T. (ASCP), Clinical Microbiologist, Peninsula Regional Medical Center



MAKE ACCURATE RESULTS ACTIONABLE

LabPro software suite

Enhanced data management improves laboratory efficiency by streamlining workflow and making information about patient care easily accessible. Collectively, the LabPro Information Manager, LabPro Alert_{EX} and LabPro Connect help standardize and consolidate testing regimens. Adaptable to unique laboratory requirements, they provide crucial alerts and suggestions about atypical results in real time.



LabPro Information Manager

- › Powerful management of microbiology results—from order to LIS transmission—increases efficiency
- › Easy-to-use and customizable software provides customers with the flexibility to make results actionable

LabPro Alert_{EX}

- › Automate detection of atypical results for quick reporting
- › Enable customization of interpretive MIC breakpoints
- › Direct staff to the most appropriate action based on customized institutional procedures

LabPro Connect

- › Manage identification and antibiotic susceptibility testing (ID/AST) data right from your laboratory workstation
- › Consolidate data from multiple testing systems for epidemiology and other management reports, right in your laboratory office
- › Choose between a closed or open system on your laboratory's local area network (LAN)

STREAMLINE YOUR WORKFLOW

Prompt™ Inoculation System and RENOK Rehydrating Inoculator

Simultaneously inoculate all 96 wells of MicroScan ID, AST and combo panels.



Select colonies with Prompt

Standardize inocula without time-consuming turbidity using the Prompt Inoculation System.



Prepare inoculum with Prompt

Inoculum stability of up to four hours allows for flexibility in the workflow.



Inoculate panel with RENOK

Simultaneous inoculation of all 96 wells of the panel simplifies the workflow.



Get results with the MicroScan system

Use the LabPro software suite for customizable data analysis and management.

The MicroScan panel guide and Biotype Lookup Program online tools help streamline your panel selection and provide 24/7 access to our powerful database of atypical organisms.



“I love LabPro Connect. It made a real difference—particularly in our unusually shaped laboratory, where we used to be bunched up to read results on the computer. We can now read results, resolve exceptions and reorder panels from wherever we are sitting, saving us time and eliminating congestion.”

Angela Beth Prouse, M.S. M.T. (ASCP)
Clinical Microbiologist
Peninsula Regional Medical Center



DISCOVER THE SMART CHOICE IN MICROBIOLOGY AUTOMATION



HighFlexX

Rapid ID

Middleware

Bruker MALDI Biotyper® system

- › Rapid organism identification complements ID/AST testing on the MicroScan WalkAway *p/us* System
- › Applies to a wide range of microorganisms with accuracy comparable to that of nucleic acid sequencing
- › Offers cost-effective, faster identification than traditional methods

HighFlexX Middleware Integrated Diagnostics

- › Streamline workflow by performing MALDI-TOF target assignment, ID/AST result management and LIS transmissions at each workstation where isolate work-up occurs
- › Eliminate the need for an additional LIS connection by managing all orders and results through an existing connection
- › Seamlessly combine accurate AST results from the MicroScan WalkAway System with the rapid ID of MALDI-TOF technology
- › Manage workflow easily through user-friendly screens, enabling control and management of all features at every workstation

Beckman Coulter’s integrated solution provides best-in-class technologies, expert consultations and top-ranked support.⁵ This comprehensive approach fully automates pre-analytical, analytical and post-analytical tasks, saving time, reducing overhead and ultimately improving patient care.



ID/AST

Informatics

MicroScan WalkAway plus System

- > Delivers gold-standard accuracy for microorganism identification and susceptibility testing
- > Enables simultaneous processing of conventional, rapid and specialty panels on a single, automated platform
- > Provides accurate emerging resistance detection for the toughest pathogens including VISA, VRSA, MRSA and CRE

LabPro information management systems

- > Powerful data management of laboratory test results—from order to LIS transmission—increases efficiency in busy and complex laboratories

“Partnering with Beckman Coulter is helping us reduce costs and improve the consistency of our work.”

Dale Kahn, M.T. (ASCP), Central Laboratory Operations Director, Alverno Clinical Laboratories



SPEED AND ACCURACY FROM MicroScan SYSTEMS

Accuracy matters

The MicroScan WalkAway *plus* System uses real MIC technology to provide the accurate results that laboratories need to operate efficiently.

Scalable solutions for every laboratory

MicroScan systems are available in three sizes:

- > autoSCAN-4
- > MicroScan WalkAway 40 *plus*
- > MicroScan WalkAway 96 *plus*

Resistance detection done right

Available panel types for use with MicroScan systems include:

- > Conventional panels
- > Rapid ID panels
- > Specialty ID panels
- > MICroSTREP *plus* panels
- > ESβL *plus* panels

Make accurate results actionable

Our advanced software programs—LabPro Information Manager, LabPro Connect and LabPro Alert_{EX}—are adaptable to unique laboratory requirements and provide crucial alerts and suggestions about atypical results.

Streamline your workflow

With sophisticated tools to support efficient workflow, including the Prompt Inoculation System and the RENOK Rehydrating Inoculator, MicroScan systems help you get the quick and accurate results you need.

The smart choice in microbiology automation

Our Smart Microbiology Automation Solution combines the proven accuracy of the MicroScan product family with powerful workflow efficiencies delivered by the Bruker MALDI Biotyper System.





AN EXTENSIVE ORGANISM IDENTIFICATION DATABASE⁶

Gram-positive

Staphylococcus and related genera

Kocuria kristinae
Listeria monocytogenes
Micrococcus and related species
Rhodococcus equi
Rothia dentocariosa
Rothia mucilaginoso
Staphylococcus aureus
Staphylococcus auricularis
Staphylococcus capitis ssp. capitis
Staphylococcus capitis ssp. ureolyticus
Staphylococcus cohnii ssp. cohnii
Staphylococcus cohnii ssp. urealyticus
Staphylococcus epidermidis
Staphylococcus haemolyticus
Staphylococcus hominis ssp. hominis
Staphylococcus hominis ssp. novobiosepticus
Staphylococcus hyicus
Staphylococcus intermedius
Staphylococcus lugdunensis
Staphylococcus saprophyticus
Staphylococcus schleiferi ssp. coagulans
Staphylococcus schleiferi ssp. schleiferi
Staphylococcus sciuri
Staphylococcus simulans
Staphylococcus warneri
Staphylococcus xylosus

Streptococcaceae

Aerococcus urinae
Aerococcus viridans
Enterococcus avium
Enterococcus casseliflavus
Enterococcus durans/hirae
Enterococcus faecalis
Enterococcus faecium
Enterococcus gallinarum
Enterococcus raffinosus
Gemella species
Leuconostoc species
Pediococcus species
Streptococcus agalactiae (Group B)
Streptococcus anginosus group
Streptococcus bovis group
Streptococcus dysgalactiae ssp. dysgalactiae
Streptococcus equi ssp. equi
Streptococcus iniae
Streptococcus mitis/oralis
Streptococcus mutans
Streptococcus pneumoniae
Streptococcus pyogenes (Group A)
Streptococcus salivarius
Streptococcus sanguinis

Gram-negative

Glucose fermenters

Aeromonas bestiarum
Aeromonas caviae complex
Aeromonas eucrenophila
Aeromonas hydrophila group
Aeromonas media
Aeromonas veronii complex
Cedecea davisae
Cedecea lapagei
Cedecea neteri
Cedecea species 3
Cedecea species 5
Chromobacterium violaceum
Citrobacter amalonaticus
Citrobacter braakii
Citrobacter farmeri
Citrobacter freundii
Citrobacter gillenii
Citrobacter koseri
Citrobacter murliniae
Citrobacter rodentium
Citrobacter sedlakii
Citrobacter werkmanii
Citrobacter youngae
Cronobacter sakazakii
Edwardsiella tarda
Enterobacter aerogenes
Enterobacter amnigenus 1
Enterobacter amnigenus 2
Enterobacter asburiae
Enterobacter cancerogenus
Enterobacter cloacae
Enterobacter gergoviae
Enterobacter hormaechei
Escherichia albertii

Escherichia coli
Escherichia coli (inactive)

Escherichia fergusonii
Escherichia hermannii
Escherichia vulneris
Ewingella americana
Grimontia hollisae
Hafnia alvei
Klebsiella oxytoca
Klebsiella ozaenae
Klebsiella pneumoniae
Klebsiella rhinoscleromatis
Klebsiella variicola
Kluyvera ascorbata
Kluyvera cryocrescens
Kluyvera intermedia
Leclercia adecarboxylata
Leminorella grimontii
Leminorella richardii
Mannheimia haemolytica
Moellerella wisconsensis
Morganella morganii
Pasteurella aerogenes
Pasteurella multocida
Photobacterium damsela
Photobacterium luminescens
Plesiomonas shigelloides
Proteus mirabilis
Proteus penneri
Proteus vulgaris
Providencia alcalifaciens
Providencia rettgeri
Providencia rustigianii

Providencia stuartii
Raoultella ornithinolytica
Salmonella enterica
Salmonella enterica serotype
Choleraesuis
Salmonella enterica serotype Paratyphi A
Salmonella enterica serotype Typhi
Salmonella enterica ssp. arizonae
Serratia ficaria
Serratia liquefaciens complex
Serratia marcescens
Serratia odorifera
Serratia plymuthica
Serratia rubidaea
Shigella sonnei
Shigella species
Tatumella ptyseos
Vibrio alginolyticus
Vibrio cholerae
Vibrio fluvialis/furnissii
Vibrio metschnikovii
Vibrio mimicus
Vibrio parahaemolyticus
Vibrio species group
Vibrio vulnificus
Yersinia enterocolitica
Yersinia frederiksenii/ kristensenii/intermedia
Yersinia pestis
Yersinia pseudotuberculosis
Yersinia ruckeri
Yokenella regensburgei

Glucose non-fermenters

Achromobacter Group B
Achromobacter piechaudii
Achromobacter species
Achromobacter xylosoxidans/ denitrificans
Acinetobacter baumannii complex/*haemolyticus*
Acinetobacter junii
Acinetobacter ursingii
Acinetobacter lwoffii group
Aeromonas salmonicida
Alcaligenes faecalis
Bordetella bronchiseptica
Bordetella trematum
Brevundimonas diminuta
Brevundimonas vesicularis
Burkholderia cepacia complex
Burkholderia gladioli
Burkholderia pseudomallei

Chryseobacterium indologenes
Comamonas testosteroni

Cupriavidus pauculus
Cupriavidus species
Delftia acidovorans
Elizabethkingia meningoseptica
Empedobacter brevis
Myroides species
Ochrobactrum anthropi
Paracoccus yeei (CDC group EO-2)
Pseudomonas aeruginosa
Pseudomonas alcaligenes/ pseudoalcaligenes
Pseudomonas fluorescens/ Pseudomonas putida

Pseudomonas luteola
Pseudomonas mendocina
Pseudomonas oryzae
Pseudomonas stutzeri
Ralstonia mannitolilytica
Ralstonia pickettii
Ralstonia species
Rhizobium radiobacter
Roseomonas species
Shewanella algae
Shewanella putrefaciens
Sphingobacterium multivorum
Sphingobacterium spiritivorum
Sphingomonas paucimobilis
Stenotrophomonas maltophilia
Wautersiella falsenii
Weeksella virosa



THE SMART MICROBIOLOGY AUTOMATION SOLUTION

Discover what Beckman Coulter can offer you.

Visit www.beckmancoulter.com/microbiology to see how our microbiology automation is benefiting laboratories and improving patient care.

References

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MALDI Biotyper is the property of Bruker Daltronik GmbH.

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