



Changing Microbiology

Veterinary Microbiology Solutions

Empowering veterinary diagnostics with
precision microbiology

Innovation with Integrity

GP

Microbial identification and source tracking with unequalled speed and ease



Fast microbial identification with the MALDI Biotyper® sirius

- Comprehensive coverage of over 4,700 microorganisms, additional microorganism entries can be added by the user
- Swift detection of specific resistance markers
- Effortless and cost-effective MALDI-TOF technology
- Streamlined, paperless workflow with full traceability
- Processing up to 600 samples per hour

Effortless strain discrimination with the IR Biotyper®

- Same-day analysis for effective hygiene and contamination control
- Cost-effective and user-friendly FT-IR technology
- Intuitive interface for seamless user experience
- Advanced algorithms and visualization designed for source tracking
- Specific and rapid analysis with specialized classifiers



The MALDI Biotyper & IR Biotyper duo is complemented with a wide range of workflow and automation solutions as well as Bruker's antimicrobial susceptibility and resistance testing products.

Meeting your microbial identification & strain discrimination demands

Comprehensive coverage with the MALDI Biotyper & IR Biotyper

Whether you're working with livestock, companion animals, aquatic species, or even exotic zoo inhabitants, the MALDI Biotyper and IR Biotyper platforms empower veterinary diagnostics with rapid, reliable microbial identification and strain typing.

Pathogen coverage across the animal kingdom



Livestock & Equine



Companion Animals



Poultry



Exotic Animals



Insects

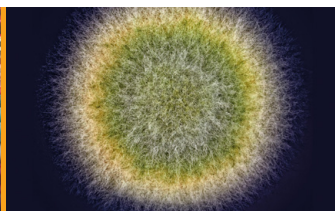
Supporting specialized veterinary applications



Vaccine development support



AMR Surveillance



Mycology



Fish & Seafood



Probiotics & Feed

MALDI Biotyper sirius - simplicity meets speed in microbial identification

Bacteria, yeast or mold: an easy workflow for all

- Efficient and user-friendly
- Fully traceable streamlined workflow with a few simple steps
- Typically starting from an isolated single colony from a culture plate
- Minimal hands-on time per isolate (only 20 seconds for most microorganisms)

Dedicated microbiology software

- Software-guided workflows provided by the MBT Compass HT Industry software deliver clear and fast results
- Rapid analysis of 95 isolates and 1 QC sample yields a complete identification report in ~5 minutes
- Identification results are presented in an easy-to-interpret 'traffic light' color scheme
- Instant result display on the screen, no need even to wait for the final report

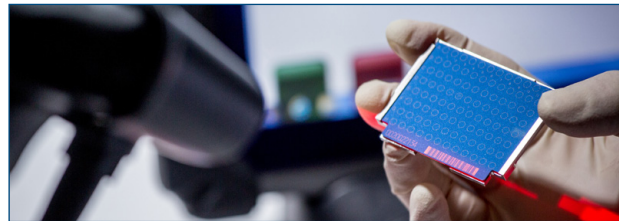
Faster than ever

Sample preparation hands-on time:

- 1 isolate ~20 seconds
- 95 isolates < 20 min

System analysis time to ID result:

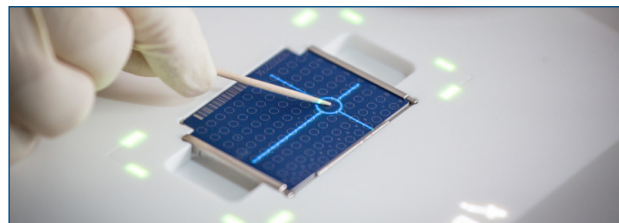
- 95 isolates + 1 QC sample ~ 5 min



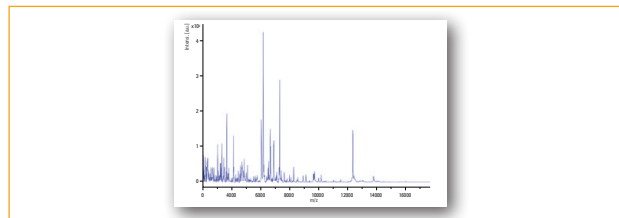
Add target plate to a MALDI Biotyper project list



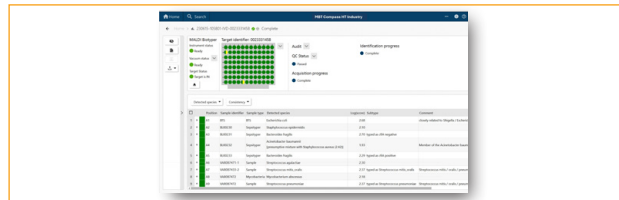
Select an isolated colony



Transfer sample onto the target plate and add matrix



MALDI-TOF spectrum automatically generated by the software



Spectrum instantly matched against the reference library to give identification

Range	Interpretation
2.00 - 3.00	High Confidence Identification
1.70 - 1.99	Low Confidence Identification
0.00 - 1.69	No Organism Identification Possible

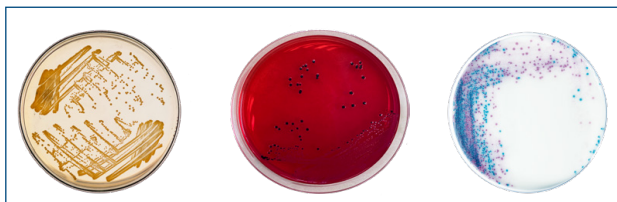
Easy result reporting with "traffic light" color scheme

Hands-on time:
1 isolate ~20 seconds, 95 isolates + 1 QC sample < 20 min

95 isolates + 1 QC sample ~5 min

IR Biotyper - hassle-free strain typing workflow

Hands-on time:
30 isolates in triplicates + IRTS samples < 30 min



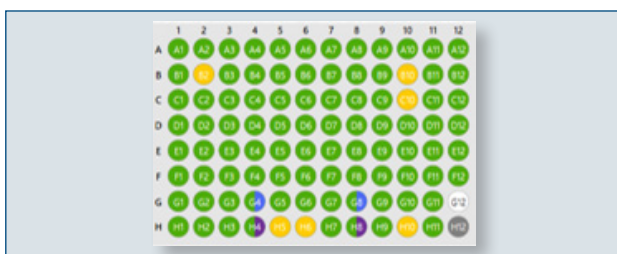
Select an isolated colony



Prepare a homogeneous suspension with the IR Biotyper Kit



Pipette the samples onto the plate and dry



Measure the samples

Isolate ID	Rep.	Best result (hits)	Iso. Score
Salm 441_Dublin	3	0:9 (3)	98.0
Salm 496_Typhimurium	3	0:4 (3)	100.0
Salm 04_Paratyphi-A	3	0:2 (3)	100.0
Salm 01494_Westphalia	3	0:35 (3)	100.0
Salm 02417_Enteridis	3	0:9 (3)	98.7
Salm 84_Veneziana	3	0:11 (3)	100.0
Salm 148_Goldcoast_BO	3	0:8 (3)	100.0

Bioinformatic analysis of spectra

System analysis time:
30 isolates in triplicates + IRTS samples < 90 min

The IR Biotyper is quick and easy to use. Starting with colony material, sample preparation onto the dedicated 96-position silicon microtiter plate takes just 30 minutes, after which the dried plate is simply inserted into the IR Biotyper.

Up to 30 isolates can be processed at the same time on one reusable IR Biotyper sample plate.

The IR Biotyper allows customers to analyze their own sample sets and perform cluster analysis and strain discrimination for a wide range of different species.

In sectors such as food, veterinary, and environmental, the IR Biotyper has been used to sample *E. coli*, *Salmonella*, *Citrobacter*, *Listeria monocytogenes*, *Acinetobacter baumannii*, *Haemophilus parasuis*, and other species.

The IR Biotyper provides a powerful tool to compare isolates in the event of outbreaks. Same-day results are obtained, starting from colony material. The result of comparison of isolates can be visualized in the form of cluster analyses (dendrograms) or 3D scatter plots.

Early counter measures help reducing the spread of a potential outbreak, hence assist to

- reduce expenses
- fight the battle against AMR
- improve animal care

Same-day strain typing

Across the whole workflow and using three replicates per isolate (plus standards), up to 30 isolates can be harvested, prepared, measured and analyzed in 3 hours.

Is the culprit resistant?

An effortless screening and early resistance warning tool

Whenever the MALDI Biotyper identification workflow results in successful identification of certain *Enterobacteriaceae*, the optional MBT HT Subtyping Module automatically looks for specific resistance marker peaks in the identified mass spectrum. As a result, the MBT HT Subtyping Module quickly detects *bla*_{KPC} expression in *Citrobacter freundii*, *Enterobacter aerogenes*, *Enterobacter asburiae*, *Enterobacter cloacae*, *Enterobacter kobei*, *Enterobacter ludwigii*, *Escherichia coli*, *Klebsiella aerogenes*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, *Klebsiella variicola* and *Serratia marcescens*.

After successful identification of *Bacteroides fragilis*, the optional MBT HT Subtyping Module automatically distinguishes *cfiA* positive/negative *B. fragilis* strains.

Both automated workflows provide additional resistance information without any additional work or cost.

Accurate and reliable antimicrobial susceptibility results in compliance with latest CLSI VET standards

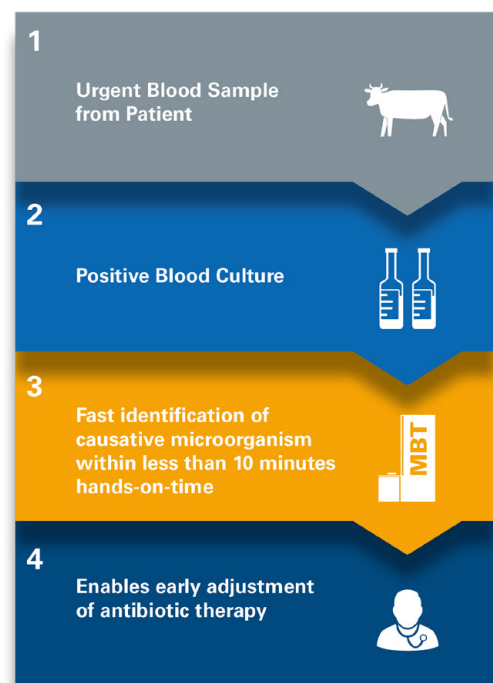
The MICRONAUT VET solution is based on broth microdilution (BMD), the reference method for AST, and provides species-specific true MIC values for a broad spectrum of veterinary-specific antibiotics. It complies with latest CLSI VET standards.

The MICRONAUT VET solution offers a choice of three different panel configurations, to meet the requirements for bacteria isolated from companion animals, livestock animals, swine and horses. Standardized photometric reading of plates as well as up to date software-based interpretation of AST results are increasing the laboratory efficiency. The long shelf life (24 months from date of manufacturing) as well as convenient storage at room temperature are simplifying logistics and keeping costs under control.



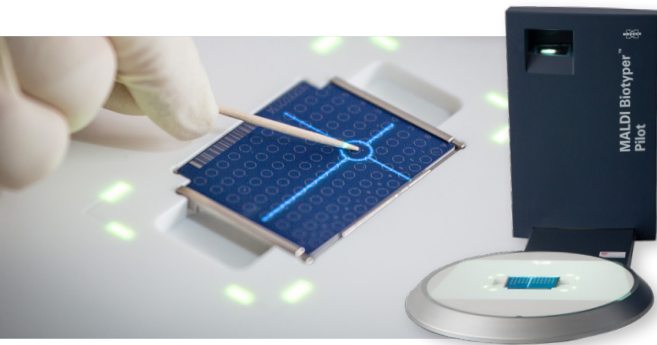
Make the difference for your sepsis cases

With the Rapid Sepsityper® Workflow, Bruker is addressing the need for fast and accurate solutions to achieve prompt identification from Positive Blood Cultures (PBC). Offering rapid identification results within 15-20 minutes post PBC alert, with the MALDI Biotyper.



Boost your productivity: Automation & Standardization

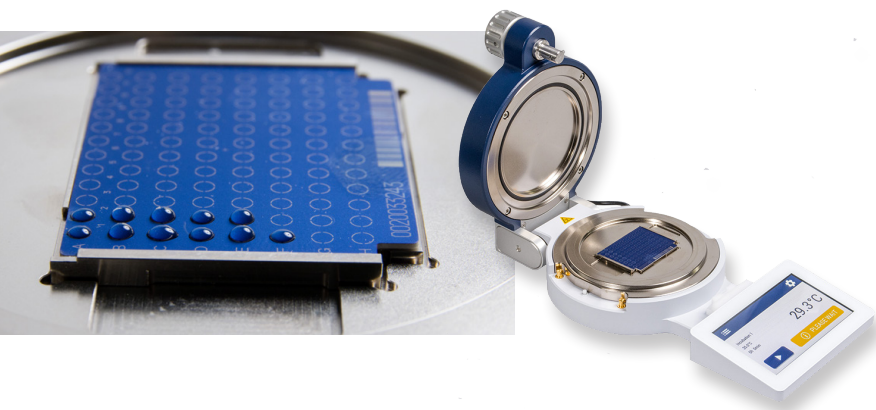
Automation & Standardization for MALDI Biotyper sample preparation



Guided manual preparation of MALDI target plates

The MBT Pilot® System offers guided sample positioning reducing the risk of errors during sample transfer. This simplifies your workflow and offers a paperless, fully documented and traceable procedure.

MBT Pilot® System / Part No. 1822041



Accelerated & Standardized liquid drying

The MBT FAST™ Shuttle enables 2-3 times faster sample and matrix crystallization, speeding up your sample preparation. The resulting more homogeneous matrix crystallization improves the sample quality and subsequently the identification rate.

MBT FAST™ Shuttle / Part No. 1872847

Ready for more automation?

The MBT PrepMatic™ GP, along with the Feeder GP, is our answer. The MBT PrepMatic GP removes the repetitive motion from the MALDI target plate preparation workflow by automated and contactless deposition of precise droplets of formic acid and HCCA matrix onto the sample positions. Equipped with the capability for colony selection, the MBT PrepMatic GP assists in the selection and transfer of microbial colonies from agar to the MALDI target plate. The Feeder GP facilitates the placement of culture plates, seamlessly transferring them with robotic precision from the carousel to the designated position within the MBT PrepMatic system.



MBT PrepMatic™ GP: This product has not yet been CE-marked or registered and is not yet commercially available. This information is provided for informational and planning purposes only and does not constitute an offer for sale.

Not for use in clinical diagnostic procedures.
Please contact your local representative for availability in your country.

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Online information
bruker.com/microbiology



Bruker Daltonics GmbH & Co. KG

Bremen · Germany
Phone +49 (0) 421-2205-0

info.md@bruker.com

Bruker Scientific LLC

Billerica, MA · USA
Phone +1 (978) 663-3660

