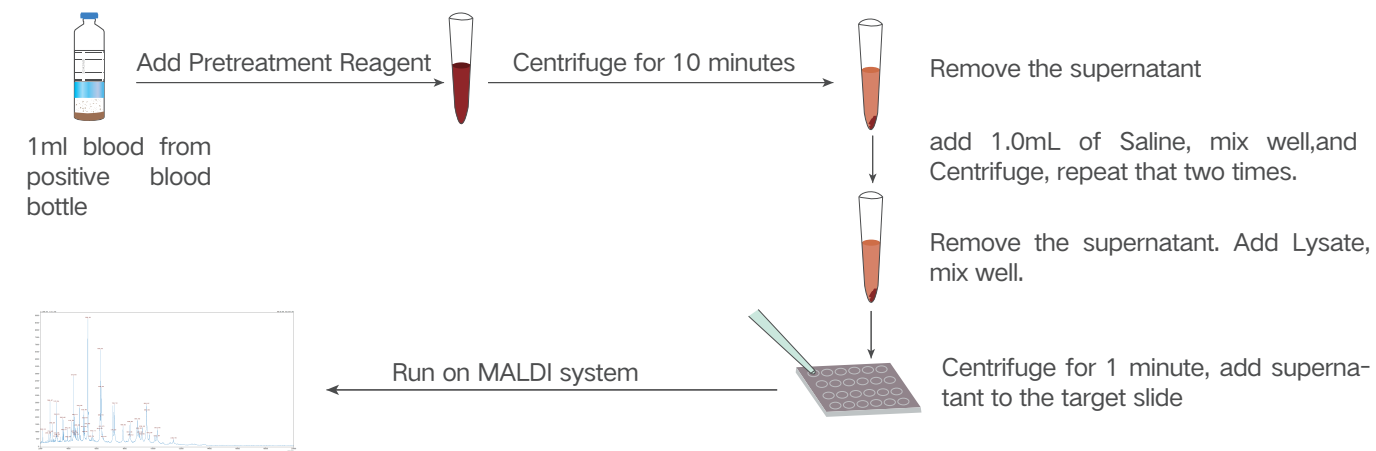


Direct method workflow



Workflow identification from positive blood culture bottles



*Refer to the manual for detailed work flow

Autof MS1600		
Laser	<ul style="list-style-type: none"> 337nm nitrogen lase 0-60 Hz repetition rate 300 samples/hr 400 million laser shots 	<ul style="list-style-type: none"> Titanium TOF tube Mass range: 1 ~ 500 kDa Resolution: >3600 FWHM (Angiotensin) Sensitivity: 50 fmol/μl (insulin, S/N≥60)
Vacuum system	1.0x10 ⁻⁷ mbar 1 internal non-oil mechanical pump + 1 internal turbomolecular pump	<ul style="list-style-type: none"> Mass Accuracy: < 60 ppm (with internal calibration) Mass Repeatability: CV<0.015%
L x W x H	450mm*705mm*1280mm	
Weight	101kg	
Common features	<ul style="list-style-type: none"> 0.01 μm filter, 99.99% microorganisms can be filtered. Autof Acquirer (with rapid ID function report within 0.1 second). Customizable database. Innovative optical design. 	

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Autof MS1600

Automated Mass Spectrometry Microbial Identification System



Autobio Diagnostics Co., Ltd.

offers more than 400 in vitro diagnostic products including CLIA(microplate based CLIA and magnetic particle based CLIA),ELISA,POCT(Point of Care Test),Microbiology and Biochemistry. As an ISO9001 and EN ISO13485 manufacturer, Autobio supplies high quality products through its well established sales network and is renowned as a reliable partner. For details please visit en.autobio.com.cn. Autobio Diagnostics Co., Ltd. | NO.87 Jingbei Yi Rd | National Eco&Tech Zone | Zheng zhou City | China 450016.

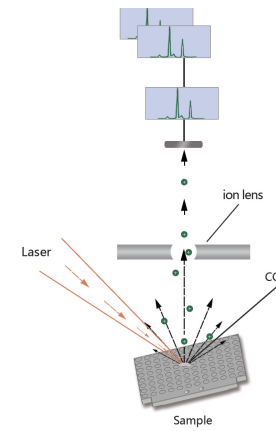
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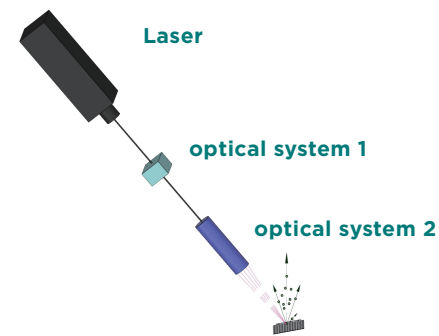


MALDI-TOF MS

- Since the 1980s, mass spectrometry technology has become a powerful method for protein analysis.
- Now, as an important member of mass spectrometry, MALDI-TOF MS (Matrix Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry) has become key to the microbiological clinical laboratory for the identification of pathogenic bacteria.
- MALDI-TOF MS with its fast, accurate, cost effective, and constantly enrich the database and so on, which greatly improves the efficiency of clinical microbiology identification. Especially microaerobes, anaerobes, mycobacteria and fungi.



Unique mass spectrometry optical system



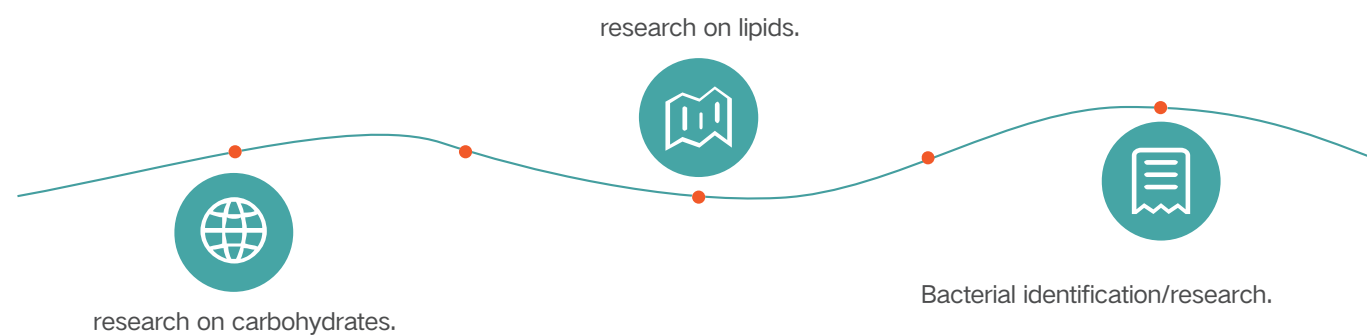
The principle of MALDI is to irradiate the co-crystal film formed by the sample and the Matrix with a laser,
The matrix absorb energy from the laser and transfer it to biomolecules, so that the sample molecules are ionized.

Function and applications

Negative ion mode

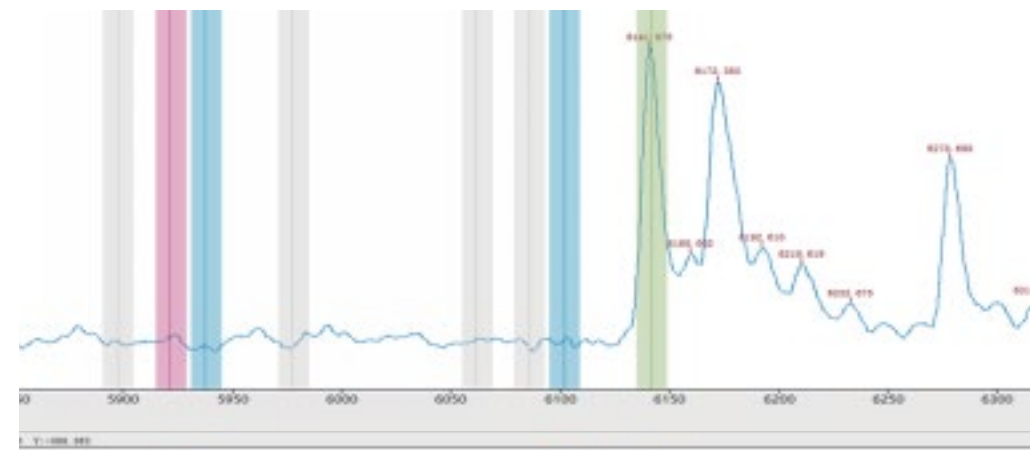
Possesses two ion detection functions of cation and anion, which can detect a wider range of sample types.

applications



Nucleic acid mass spectrometry

- Nucleic acid mass spectrometry is to design primers according to the target site. After the sample is amplified by multiplex PCR, the target detection is carried out with a specific extension probe.
- When the extension probe binds to the target, the extension probe adds one base, and the molecular weight of the probe changes before and after detection. This change is detected by MALDI-TOF MS to obtain the detection result.



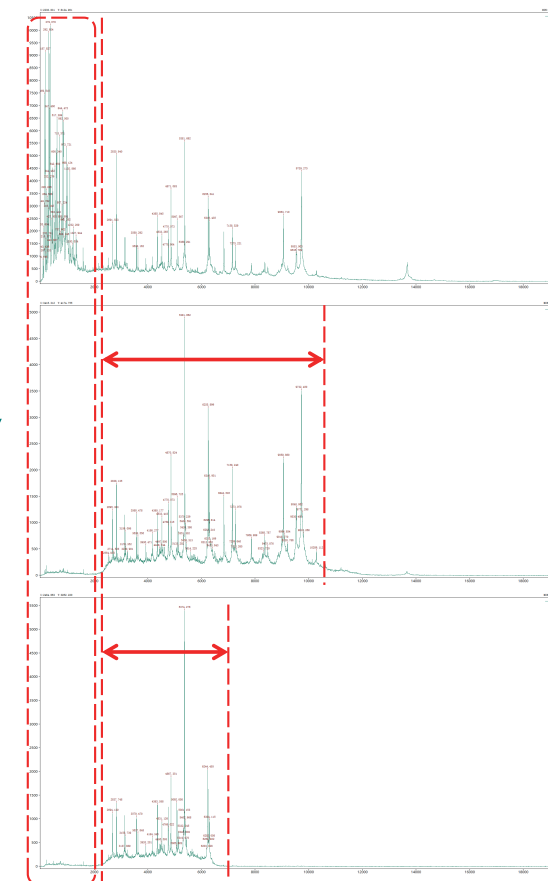
Picture 1, Nucleic acid Function (Software) in Deafness genetic screening

applications

- Respiratory Pathogen Detection (COVID-19+ S. pneumoniae/ M. pneumoniae/ H. influenzae/ C. pneumoniae/ Legionella.spp)
- Tumor markers
- Thalassemia detection
- Deafness genetic screening Methylation studies

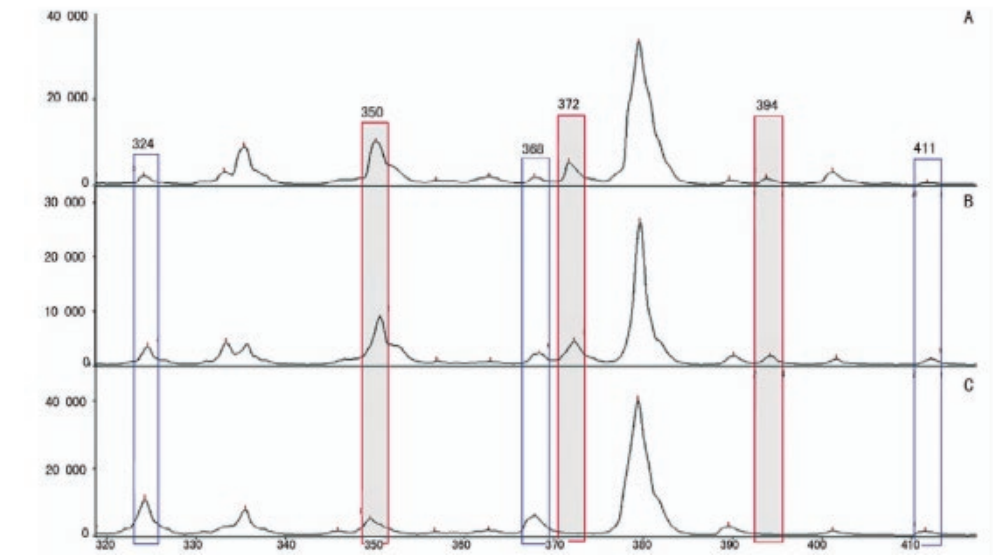
Ion screening module (optional)

- The screening voltage is adjustable from 0 to 500V.
- The filter range is adjustable.
- It can avoid the impact of secondary electrons on flying ions and can improve the speed of peak seeking and identification.



Antibiotic sensitives test on MALDI

- Resistant bacteria with β -lactam antibacterial drugs(ampicillin, imipenem, meropenem, ertapenem, cefotaxime, ceftazidime)



Picture 3, Mass spectrum after ampicillin incubation

(A is blank control; B is negative control; C is β -lactamase resistant strain.)

- MALDI TOF Mass spectrometry AST/MIC detection (under research)

Accessories and Reagents

Cat No.	Description	Specification
MSA01	Sample Pretreatment Reagent	100T
MSA02	Calibrator for use with AUTO MS	80T
MSA03	CHCA matrix for use with AUTO MS	0.5ml*4Bottles
MSA04	Positive Blood Cultures Pretreatment Reagent	60T
MSA05	Filamentous Fungi Pretreatment Reagent	120T
31.03.04.0009	Target Slide	10 pcs
31.03.04.0010	Target Slide Holder	2 pcs
ACID0101/ACID0102/ACID0103	Nucleic Acid Sample Pretreatment Reagent (under development)	480 tests/960 tests/3840 tests