Scientific Analysis Instruments

Laser TOF Benchtop Linear MALDI-TOF Instrument LT2 Plus





Excellence In Mass Spectrometry

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A game changer in microbiology

The Laser TOF LT2 Plus system is specifically developed to assist microbiologists in addressing their daily challenges. This microbial analysis system comprises the LaserToF Benchtop MALDI-TOF mass spectrometer and the BactoSCREEN-ID software package, which together provide reliable, fast, cost-effective, and efficient identification of Gram-positive and Gram-negative bacteria, yeasts, and molds based on their unique molecular fingerprint. The system is designed to be used in clinical, research diagnostics, and various other application fields across a wide range of settings.



Simple Identifcation Workflow

The LT2 Plus System workflow has been designed to be simple and easy to use.

No previous experience is needed.

Only Few steps to get efficient micro-organism identifications.

- Select Single Colony.
- Smear a small amount on the MALDI Target Plate.
- Add Matrix.
- Run MALDI Analysis.
- When spectra are acquired, they will be automatically compared to the spectra in the database. The identi-fied name will then be displayed along with score values and color-coded results.

Extra Few steps for Yeast & Molds Identification are available.



User Friendly Software

The BactoSCREEN-ID software is specifically created to quickly determine the taxonomic classification of a micro-organism being studied at the species level. This is achieved by comparing its mass spectrometry profile to the profiles of known strains of micro-organisms present in the corresponding database.



In just a few simple steps, the user-friendly Bactoscreen software enables users to quickly and accurately identify microorganisms.

The Bactoscreen software is designed to help users overcome their daily challenges in interpreting data, including identifying difficult organisms like molds. As a result, the software eliminates the need for an expert in data interpretation.



Sample-

D:5

E:5

e-28

D:4

E:4

Sample-40 Sample-4

le-52 Sample-53

D:2

E:2

D:3

E:3

Sample-6

Bac.Standard

Sample-7

D:7

E:7

le-43

Sample, 55

D · 8

E:8



Tailored to Microbiology

The results are presented in a clear manner that allows users to identify the species level along with its corresponding score value. Additionally, the color codes are assigned based on the score value to further enhance clarity.

0.80 - 1.00	High confidence Identification to the species leve low confidence species ID			ies leve
0.50 - 0.79				
0.00 - 0.50	No Identification			
	Genus, Species	Spec.	Prc	Result
Staphy	Genus, Species lococcus saprophyticus LT7AB4	Spec.	Prc 0	Result 0.9
 Staphy Staphy 	Genus, Species lococcus saprophyticus LT7AB4 lococcus xylosus LT3593	Spec. 0.9 0.57	Prc 0 0	Result 0.9 0.57

With Bactoscreen, users can create their own database, conduct statistical analyses, generate dendrograms, and compare data.



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LT2 Plus Specifications

The performance of the compact benchtop LT2 Plus systems is not compromised.

Mass Resolution	> 2,500 m/Δm (Δm=FWHM)		
Mass Range	> 500,000		
Mass Accuracy	< 100 ppm with internal calibration RMS < 500 ppm with external calibration RMS		
Vacuum	Air-cooled TMP backed by oil free diaphragm pump		
Sensitivity	< 1 f mol		
Laser radiation	Pulsed UV (N2 337nm)		
Dimensions [Weight]	52x83x130 (WxDxH cm) [approx. 130 kg] (figures exclude any external computer supplied)		
Services (power only)	<1kVA (excluding computer), single phase		
Motorized Sample Stage	96 well 1/4 microtitre plates (stainless steel reusable)		
Data System	PC, Windows, integral (with touchscreen) or external		
Software	Full MS control and sequenced data acquisition, net work, web or local database access with processing		
Environmental			
Temperature range	15-25C		





Consumables & Accessories

HCCA MALDI Matrix Kit

SAI Purified Matrix Substance enables easy and convenient preparation of MALDI matrix solution for MALDI-TOF- MS measurement of peptides and proteins.

Each Kit contains : 4 vials for 1000 samples.

Bacteria Standard Kit

The Bacteria Standard consists of E. coli DH5 proteins that have been spiked with two additional proteins in the upper mass range, allowing for calibration over a mass range of 3 to 18 kDa.

Each Kit contains : 4 vials for 200 Calibration .

MALDI Automatic Spotter

is designed for an automated fast and accurate sample preparation for microbial identification .The spotter can process up to two MALDI targets simultaneously, requiring only one second per sample spot. For higher throughput, the instrument has an automatic target drying function that provides a fast and efficient sample preparation.

The instrument has two separate inputs for reagents. This ensures not only direct sample preparation with MALDI matrix, but also pretreatment with formic acid.









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