

# Personal LAB

Fully Automated 2 Microplate Analyser ELISA / IFA



The new Personal LAB is the answer for laboratories who demand an organised and flexible solution in total automation of microELISA assays. The new Personal LAB provides you a daily high performance in constant speed and will play a central role in making your working routine increasingly efficient.

The new Personal LAB is the fully automated 2-plate microELISA processor, which embraced state of the art technology, high level specifications and durable performance on a compact footprint in a beautiful new Italian design. Innovative applications with both hard- and software modules, give you the unique advantage of processing quickly, reliable and noiseless, 2-microplates independent in a flexible assay environment with a user friendly interface.

Multi assay processing is ideal for Personal LAB in addition to small-to mid sized sample testing. With Adaltis' 35-years manufacturing experience and our unique expertise we created a new Personal LAB with superior flexibility, reliability and ease of use. Its versatility combines the perfect instrument for the most demanding laboratory, next to laboratories that make first steps into automation of microELISA routine.

STATE OF THE ART  
specifications

NEW design

RELIABLE  
performance

a TRUSTED choice  
over 20-years



RELIABILITY & INNOVATION

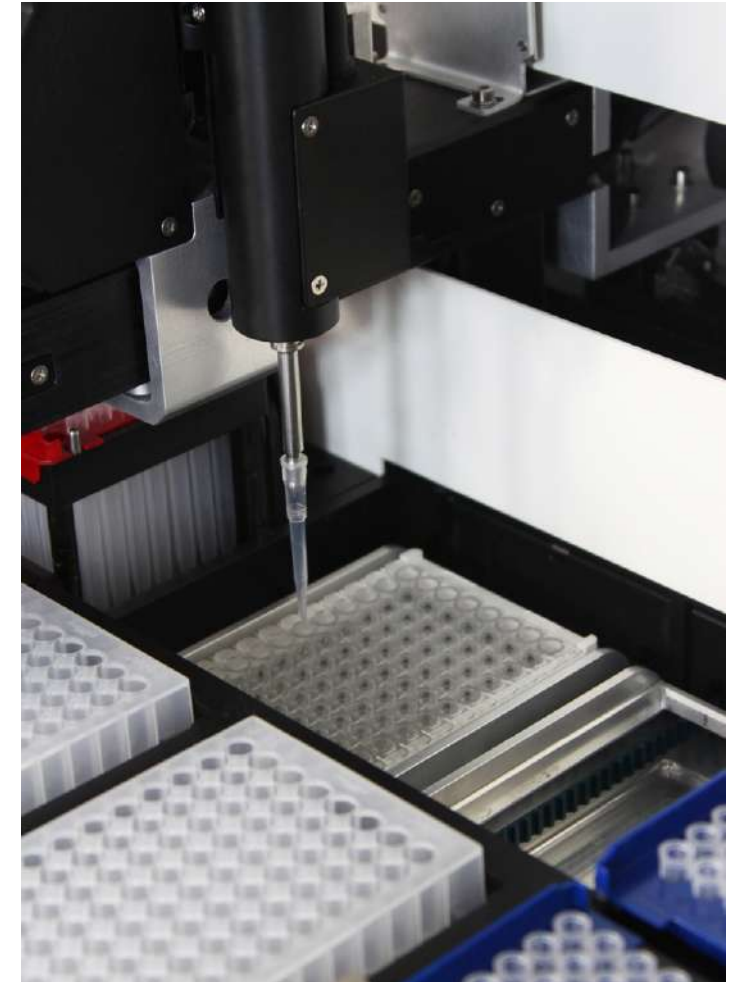
# Personal LAB





### Features & Benefits

- Breaking feature is the direct loading 'kit-to instrument' from the assay kit reagent bottles / control vials, onto working platform of the instrument – no reagents or control consumables are required anymore.
- The new, easy to use interface enables you to program almost all the protocols of microELISA assays currently available on the market.
- PSID – true Positive Sample Identification.
- Accommodating fully barcoded reagents inventory.
- Flexible loading dock for accommodating:
  - different slides for loading different vials/bottles of controls/standard/reagents.
  - different slides for loading different formats of sample tubes.
  - 'genuine open system'.
- Maximised precision and efficient pipetting by using 200 uL tips and 1000 uL tips.
- Zero carry-over by using disposable tips for sample pipetting.
- Detection for clotting, bubbles and insufficient volume during pipetting.
- Level sensing on all instrument liquids and –buffers loaded on the instrument.
- 2-independent pipetting systems ensure maximum efficiency in pipetting speed and distribution of the liquids/samples:  
a fast pipetting maintaining accuracy and efficiency.
- Each of the two microplates is fully independent programmable for pipetting, temperature, incubation, washing and reading.
- MicroELISA and IFA technology combined in one instrument platform.
- Open system for accommodating maximum flexibility for varying testing needs.
- Latest hardware technology provides reduced maintenance, increased precision and reliability.
- Modern software applications enable remote support and diagnostics.





# Personal LAB



## Reagents

Personal LAB is using bar coded reagents to ensure maximum control during assay execution and a validated test routine from the assay.

All bottles (Reagents – Standards – Controls) are accommodated in dedicated and multi-functional sliding trays.

Multiple reagents/standard sliding trays can be loaded on the work area.

Reagents bottles up to 60-mL can be loaded on a reagent sliding tray.

The reagents system is designed for combining more than one assay per reagent tray for maximum flexibility in your daily test routine.

The loading area is easily accessible for easy and simple loading activity of reagents, samples and polymeric tips.

The reagents and samples rack are easily removable in order to quickly store the reagents in a refrigerator.



## Sample Station

The new featured sample identification enables genuine positive sample identification of samples (PSID) via an integrated bar code facility.

This new feature, in combination with the new sample strip loading facility results the most reliable sampling, sample identification and matching test results.

The new PSID functionality makes your Personal LAB even more complete and will maintain its leading position for mid-sized automated microELISA instruments.

Test tubes with following dimensions are compatible with the Personal LAB:

- height: 55 to 75 mm.
- diameter: 12 to 13.5 mm.

## Incubation Chambers

The plate housing is designed for simultaneous processing of two microplates. Each microplate can be processed and programmed completely individually. Also one single microplate can be performed.

The plate holders are able to perform the linear shaking with a programmable intensity and period.

During the incubation the plates are placed into two independent chambers, thermally isolated at the temperature programmed by the operator.

## Reading Station

The reading station has a photometer that can be programmed by the operator for reading, with a single, double or triple beam (vertical reading). In the case of triple beam (over-range reading), the instrument automatically converts the absorbance values detected at the different wavelengths.

- The filters usually provided: 405, 450, 492, 550 and 620 nm.
- Optional filters: others in the range 400-700 nm, up to a maximum of 8 filters.

## Pipetting Station

The working platform has one of robotics arm operated by step motors and controlled by both optic and mechanic sensors.

It is equipped with 2 dispensing systems that allow it to work independently, providing maximum efficient pipetting. The 2 independent arms can use the tip of 1000uL to dispense the reagents in multi-dispensing mode and 200 uL to dispense the samples, standards and controls.

The instrument is equipped with -PLS- pneumatic level sensor (patented) for the polymeric tip). The polymeric tip is equipped with a clot detection system.

In the event insufficient volume of liquid, the instrument alerts the operator with both acoustic and optic alarms.

The Personal LAB performs automatic pre-dilution of samples, standards and controls. Up to 192-predilutions can be executed per run.

## Washing Station

The washing station has a 16-channel wash head. Eight channels are dedicated to the wash solution dispensing and eight channels are dedicated to the aspiration of liquids.

Cycles, volume and number of washes are easily programmable by the operator and three wash buffers can be loaded on board at the same time.

- Washing volume: programmable from 100 to 2000 uL.
- Number of cycles: programmable from 1 to 9 cycles.
- Soak time: programmable from 1 sec to 3 minutes.
- Pressure: programmable.

Each protocol can be programmed by the operator with several washes different in terms of cycle, volume, soak time and pressure.

# Personal LAB

## Password Protection

Personal LAB is password protected with different levels of access (access to complete programming, access to testing, access to results, service menu, service maintenance etc.).

## Instrument Maintenance

The Personal LAB has minimum down time to maximise your laboratory efficiency:

- Preparation and end-of-work down times: 5 minutes a day.
- No Warm-up is required.
- Self-diagnosis and alarm procedures are an integral part of the Personal LAB.

### *Easy maintenance procedures:*

#### Daily

- End of run cleaning procedure – Fully automated.

#### Weekly

- General cleaning of the work area of any liquids.
- Emptying all tanks to remove residual buffers. Rinsing with DI-water.

#### Monthly

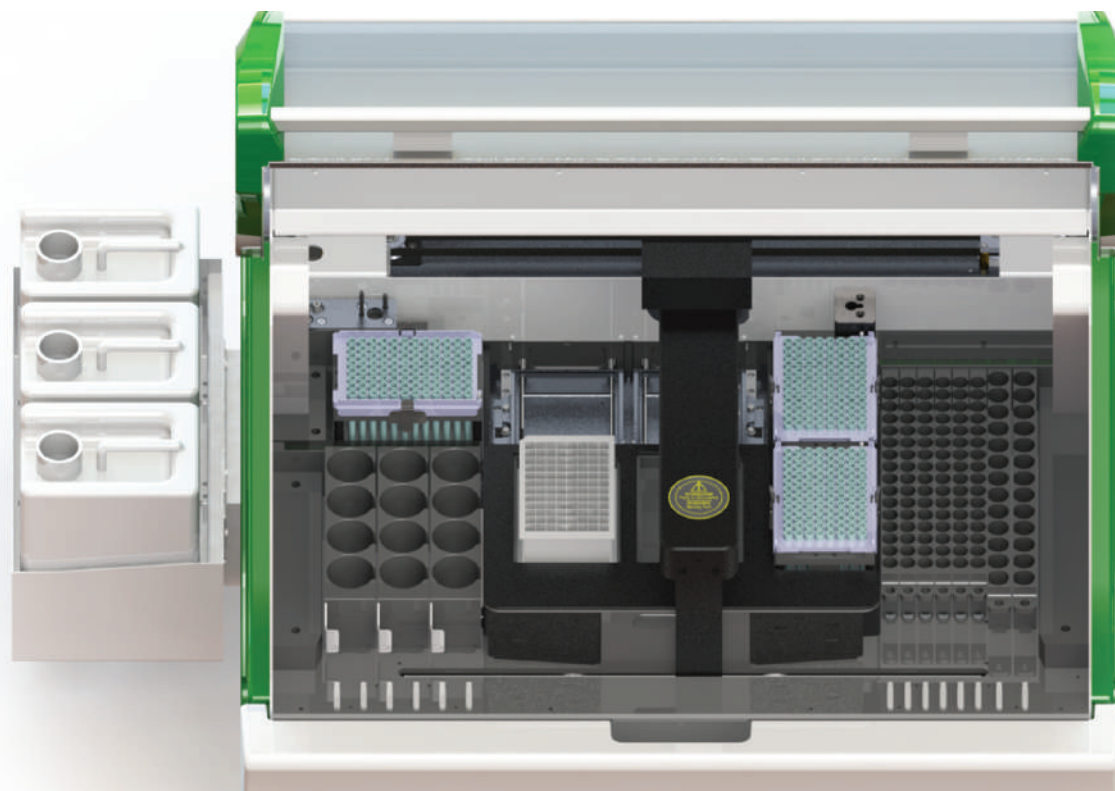
- Wipe down of the work area, racks and tip disposal bin.
- Inspect tanks and visible tubing's.

## IFA Functionality

The new Personal LAB additionally feature is the functionality of the automated IFA processor, that facilitates sampling, incubation and colouring of IFA samples.

Personal LAB can process simultaneously microELISA assays in a microELISA plate and IFA assays on the dedicated IFA slides - even from the same samples!

IFA-detection shall be done by suitable microscope (not provided with the instruments).





## Personal LAB Software Characteristics

The Open LAB system can be used to carry out both qualitative and quantitative analysis, with suitable quality control operations. The user friendly Open LAB software guarantees a unique easy programming experience for each operator.

The flexible Open LAB software enables easy addition of new methods. It is possible to program and store an almost unlimited number of protocols, arranged on a panel drawn up by the user, according to his needs.

Execution is done as individual test or by panel, at random and/ or in batches. Open LAB uses templates that can be completed quickly and intuitively.

Features of Personal LAB software are among others:

- Automatic management of 1 to 6 assays in a single session
- Creation of job lists
- Customised reports for:
  - Tests
  - Job lists
  - Test results
  - Results by sample (restricted to a single session of analysis only)
- History of sessions performed

Cut-off (threshold) method for quantitative and qualitative analysis and interpolation as per the calibration curve is possible using the following methods:

- Cubic Spline
- Point-to-point
- 4 parameters
- Single point
- Linear regression
- Log/log

Two points recalibration for the quantitative tests is available as well.

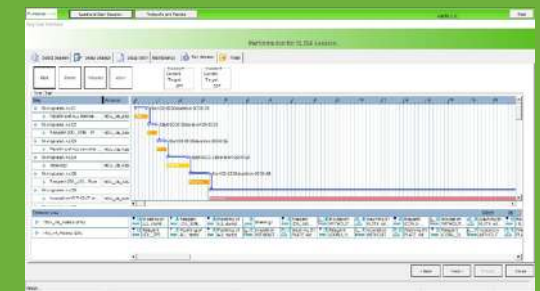
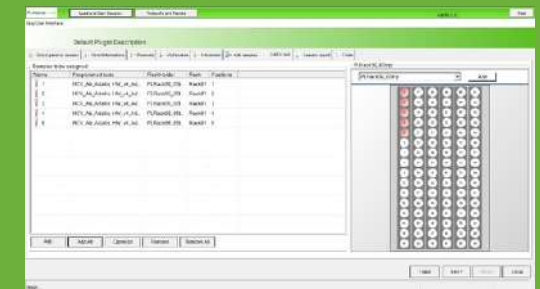
By using the versatile 'Chem Plus' calculation engine with an extra tutorial module, it is possible to monitor the progress of sessions and the analytical data obtained from or during running the tests.

Dedicated and user-friendly software warrants your simplified routine and hassle free operation of the instrument, every time.

Software Features	
Work protocols	Unlimited
Protocol management	Fully automatic
Analysis profiles	Up to 12 different protocols per plate
Profile storage	Unlimited
Data processing	Cut-off method for qualitative analysis.  For quantitative assay interpolation from a calibration curve with the following methods: <ul style="list-style-type: none"> <li>■ Cubic spline</li> <li>■ Point to point</li> <li>■ 4 parameters</li> <li>■ Pinear regression</li> <li>■ Spline</li> <li>■ Lin/log</li> <li>■ Log/log</li> <li>■ Single point</li> </ul>
Printing	Protocols, profiles, sessions and test results. Customised reports.



Dedicated and user-friendly software warrants your simplified routine and hassle free operation of the instrument, every time





# Personal LAB

Sample Station	
Tubes	<ul style="list-style-type: none"> <li>Up to 96 positions for tubes 12-13.5 mm diameter, 55-75 mm height</li> </ul>
Label	<ul style="list-style-type: none"> <li>UPC Version A and E (EAN 8 and 13), Code 39, Interleaved 2 and 5, Code 93, Code-bar, Discrete 2 or 5, Code 128, Code 39 FULL ASCII</li> <li>The scanner will discriminate between the symbols, except Code 39 and Code 39 FULL ASCII</li> </ul>
Loading capacity	96 samples
Sample identification	Positive Sample Identification (PSID) by built-in bar code reader and dedicated sample loading facility
Sample loading	Sample strip loading with bar code reading
Incubation Station	
Incubation area	Manages 2 microplates (with independent temperature control)
Temperature	At least 5°C higher than the room temperature or 30°C ÷ 45°C
Stability	± 1°C
Incubation time	Programmable
Warm-up	15 minutes



Pipetting Station	
XYZ arm	2 independent channels using disposable tips for sample, standards, controls and reagents
Sample tip type	Adaltis disposable tips
Tip size	200 or 1000 µL
Sample pipetting volume	10-200 µL
Reagent pipetting volume	10-1000 µL
Working area	Manages 2 microplates independently
Syringe dilutors	Two dilutors with 1 mL and 5 mL precision micro-pumps
Syringe 1 mL resolution	4000 steps on max. stroke
Syringes 5 mL resolution	2000 steps on max. stroke
Replicate controls/ standards	Programmable from 1 to 4
Replicate samples	Programmable from 1 to 8
Precision for serum samples	<ul style="list-style-type: none"> <li>&lt;5% with 10µL (CV)</li> <li>&lt;3.5% with 25µL (CV)</li> <li>&lt;2.0% with 50µL (CV)</li> <li>&lt;2.0% with 100µL (CV)</li> </ul>
Precision for reagents	<ul style="list-style-type: none"> <li>&lt;3.5% with 50µL (CV)</li> <li>&lt;2.5% with 100µL (CV)</li> <li>&lt;2.5% with 200µL (CV)</li> </ul>
Serum dispensing time	<15 min. for 88 samples (volume 100µL)
Reagent dispensing time	<3 min. for 96 wells (volume 100µL)
Carryover	Disposable tips: none

Product Code	
Personal LAB	0-2875





## Fully Automated 2 Microplates Analyser

### Washing Station

Washing volumes	100 to 2000 $\mu$ L
Wash cycles	1 to 9
Soak time	1 second to 3 minutes
Pressure	Low or normal

### Photometric Reading

Working area	Allows for 2 reading stations
Reading range	0 to 3.0 OD
Reading channels	16 (2 x 8)
Reading methods	Single, double or double beam with over range filter vertical reading
Reading filters	8 interference filters
Standard filter range	405-450-492-550-620 nm, (other filters optional)
Linearity	1% (0:2 OD)
Precision	1% (0:2 OD)
Resolution	0.001 OD

### Instrumentation Dimensions

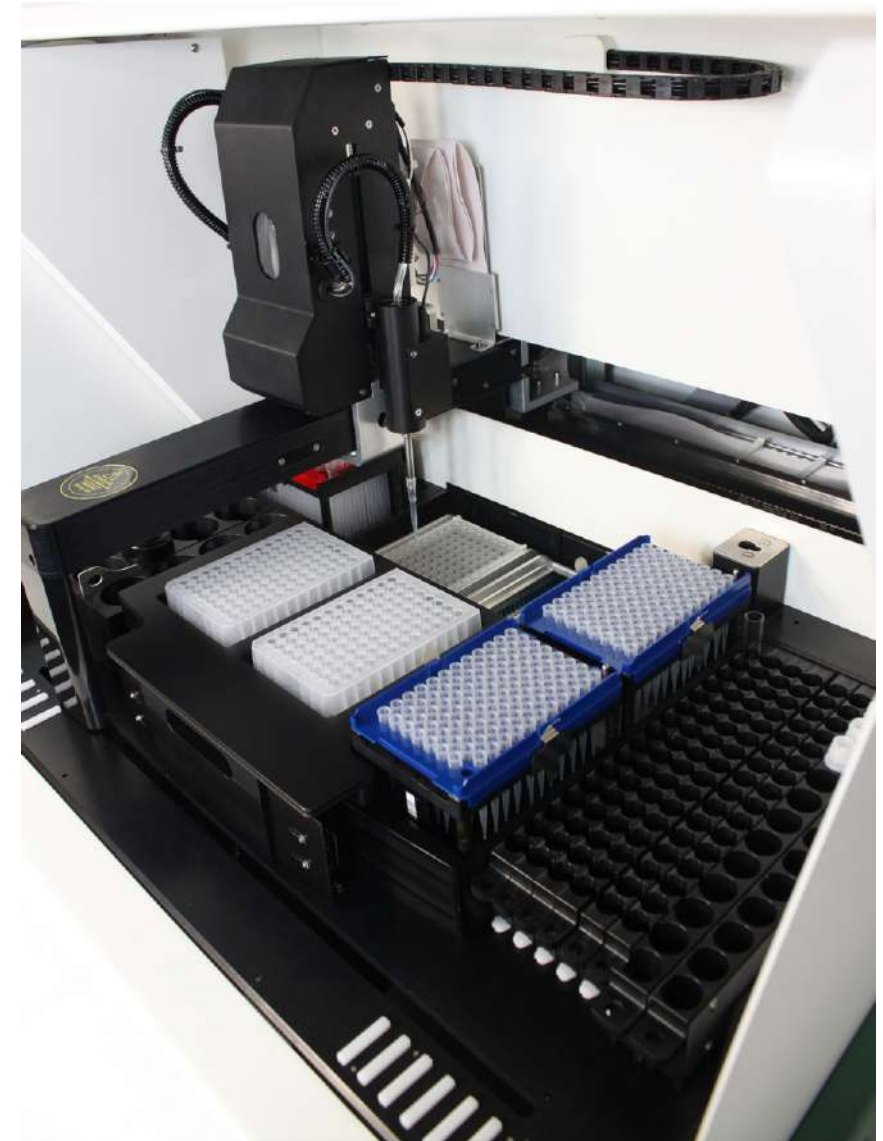
Size	Width 76 cm, Depth 76 cm, Height 69 cm
Weight	$\pm$ 75 kg

### Electrical Requirements

Voltage	From 110 to 230V AC $\pm$ 10%
Frequency	50-60 Hz
Power	450 VA (typical)

### Operator Console

- PC All in One, Windows 10
- Dedicated Personal LAB operational software



# Personal LAB

# <http://www.adaltis.net/products/ivd-instruments/microelisa/personal-lab/>

# <http://www.adaltis.net/products/ivd-reagents/microelisa/>

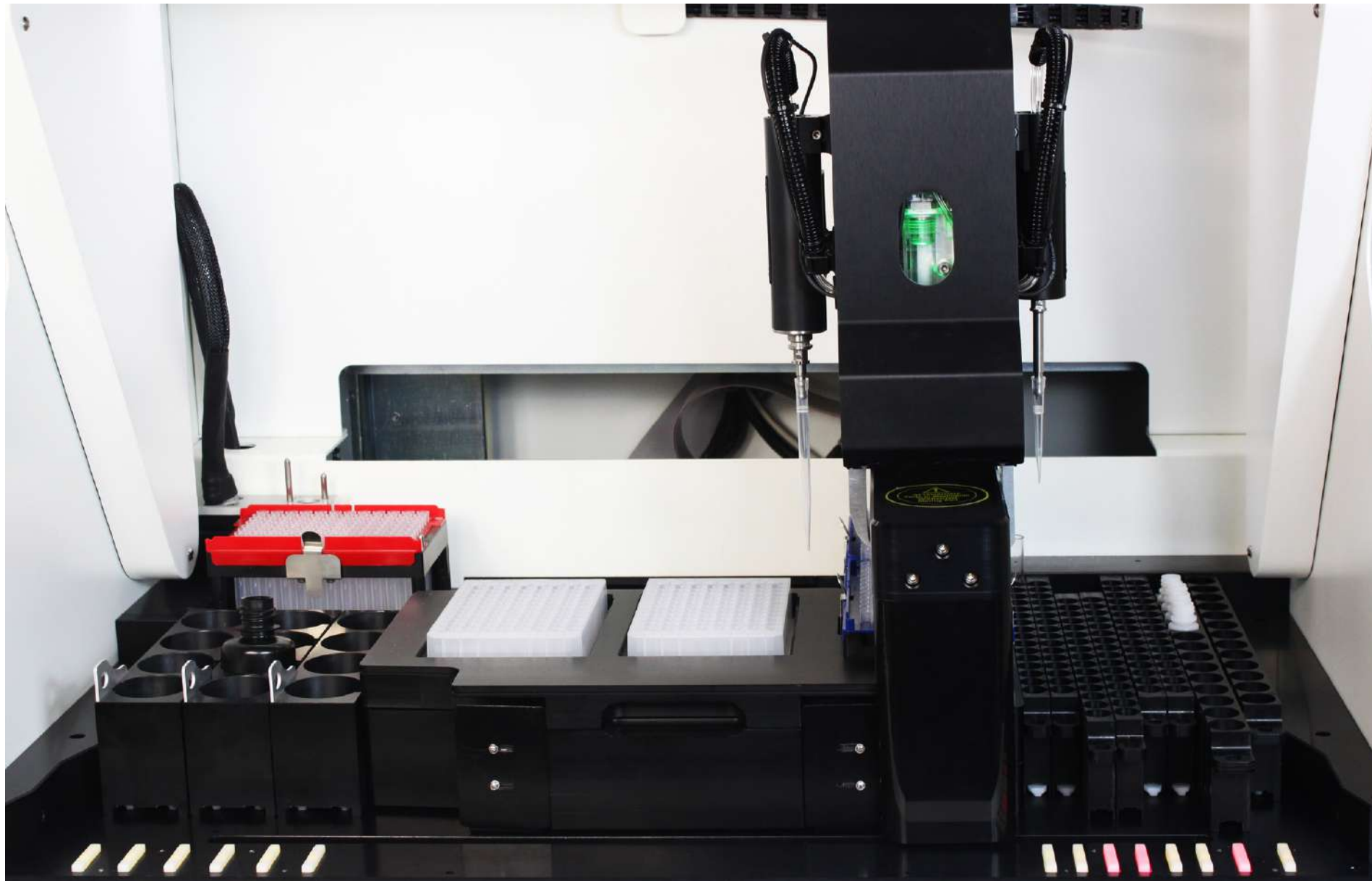


Fully Automated 2 Microplates Analyser



## Fully Automated 2 Microplates Analyser

The reliable platform for your automated microELISA testing





# EIAgen

## MicroELISA Assay Product Line

The EIAgen line is a complete range of microplate assays able to satisfy the requirements of the most demanding laboratories.

- The EIAgen assays are completely automated on Personal LAB instrument. All application protocols have been validated and approved.
- The excellent quality of Adaltis products, outstanding performance and ease of use, make the EIAgen assays the best solution for every laboratory.
- Almost all assays include reagents that are ready to use and have a good shelf life.

Our wide offer of microplate assays includes the following lines:

- ToRCH
- Retrovirus
- Hepatitis
- Syphilis
- Gastric Function
- Vitamins
- Autoimmunity
- Hormones
- Tumour Markers



For more information

## WWW.ADALTIS.NET

Customer Care Center:  
e-mail: [info@adaltis.net](mailto:info@adaltis.net)

Technical Assistance:  
e-mail: [service@adaltis.net](mailto:service@adaltis.net)

Legal Registered Office  
Via Durini, 27  
20122 Milano, Italy

Tel: + 39 0774 5791  
Fax: + 39 0774 353085

Sales and Marketing Office  
e-mail: [sales@adaltis.net](mailto:sales@adaltis.net)

Order handling and Logistics  
e-mail: [order@adaltis.net](mailto:order@adaltis.net)

Adaltis S.r.l. Headquarter  
Production and  
Development Plant

Via Luigi Einaudi 7  
Guidonia di Montecelio  
00012 Rome, Italy

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Our products are CE-IVD.