Immunoassay

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POCT

IPFI

IPFI is an immune analyzers based on the principle of time-resolved fluorescence detection, suitable for detecting samples from immunochromatography test strips. The instrument is easy to operate, portable, and has stable performance. It is widely used in clinical medical testing, food safety testing, animal disease testing, and other areas.

01 Features

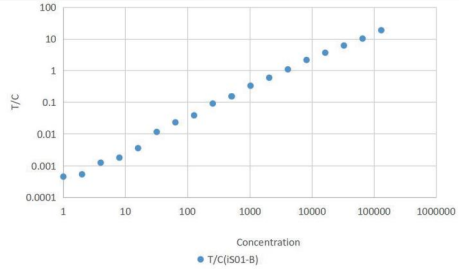
- Handheld smart device, light and portable, easy to use at any time
- Long standby time, battery powered
- Time-resolved fluorescence technology, more accurate detection results
- The instrument uses SiPMT detector, which has higher detection sensitivity
- High-resolution 5-inch touch display
- Built-in bar-code scanner, supports scanning of both one-dimensional and two-dimensional codes
- Open platform, suitable for different testing items

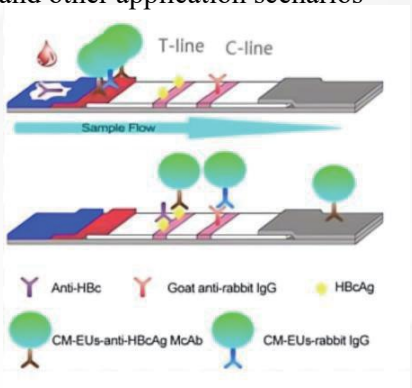
IBFI

IBFI is an immune analyzers based on the principle of time-resolved fluorescence detection, suitable for detecting samples from immunochromatography test strips. The instrument is easy to operate , portable, and has stable performance. It is widely used in clinical medical testing, food safety testing, animal disease testing, and other areas.

01 Features

- Compact design, occupies a small tabletop area
- Time-resolved fluorescence technology, more accurate detection results
- Open platform, suitable for different testing items
- 7-inch color touch screen, intuitive and easy to operate
- Built-in thermal printer, which can print the test results immediately
- Built-in bar-code scanner, supports scanning of both one-dimensional and two-dimensional codes
- The instrument uses SiPMT detector, which has higher detection sensitivity
- Suitable for emergency rapid detection, on-site detection and other application scenarios
- T/C ratio has a linear range up to 5 orders of magnitude





02 Specifications

Model No	IPFI	IBFI
Product type	Handheld	Desktop
Principle	Time-resolved fluorescence immunoassay	Time-resolved fluorescence immunoassay
Detection channel	Single channel	Single channel
Detector	SiPMT	SiPMT
Light source	LED	LED
Excitation wavelength	365nm (customizable)	365nm (customizable)
Emission wavelength	610nm (customizable)	610nm (customizable)
Dynamic Range	5 orders of magnitude	5 orders of magnitude
Stability	CV <1%	CV <1%
Test speed	Single detection time < 10s	Single detection time < 10s
Reagent Card Barcode	1D/2D (customizable)	1D/2D (customizable)
Display	5-inch touch screen	7-inch touch screen
Interface language	Chinese and English, other languages can be expanded	Chinese and English, other languages can be expanded
Data transmission	USB	USB
Barcode scanner	Supported	Supported
Printer	N/A	Supported
Power	Lithium battery, 2500mAh	AC100-220V, 50/60Hz
Operating mode	Stand-alone	Stand-alone
Dimension	180*92*40mm, 0.5Kg	280*270*170mm,2Kg
Operation Environment	10-35℃, <80%	10-35℃, <80%

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Multimode Microplate Reader

The I96 series is a multimode microplate reader with high sensitivity, wide dynamic range, and high linearity based on the combination of innovative linear PMT detection technology and dual excitation light source compensation technology.

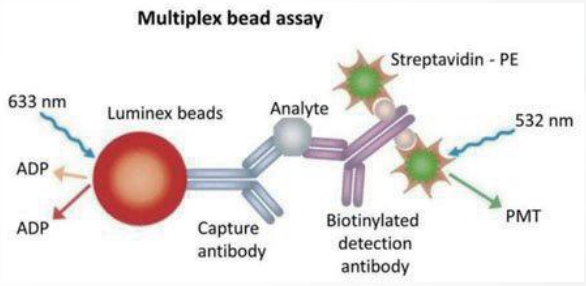
The I96 offers a budget-friendly solution that provides you with exactly what you need. Multiple detection modes: Absorbance(Abs), Luminescence (Lumi), Light-induced chemiluminescence (alpha), Fluorescence (FL) and time-resolved fluorescence (TRF) etc, users can flexibly select one of those detection modes, providing researchers with a versatile instrument that does not compromise on sensitivity or performance.

The instrument is widely used in the fields of nucleic acid assay, immuno-assay, and cell analysis. For instance, it can be used for performing protein detection, enzyme activity kinetics, kinase detection, intermolecular interaction, agglutination reaction, reporter gene detection, cell viability/toxicity, bacteria adhesion, food toxin, and hormone detection applications.

01 Features

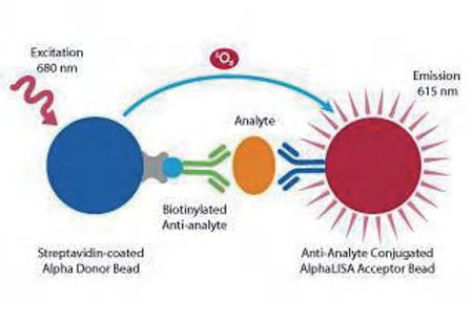
Luminescence (Lumi)

The photons generated by the luminescence reaction are converted into electrical signals for detection by PMT in the reader. The signal collected by instrument covers the entire spectrum and allows to do glow-type luminescence. Luminescent detection provides high sensitivity and wide dynamic range to the assay,which does not require a light source or specific optics for excitation, thus it is optically simpler than fluorescence detection.

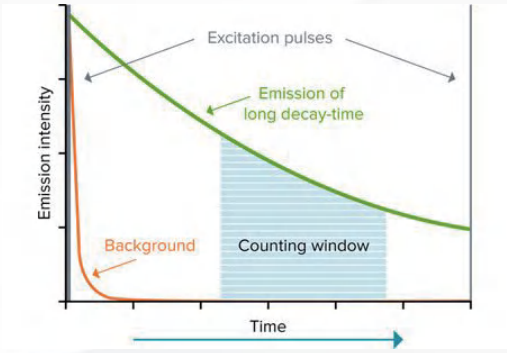


Light-induced chemiluminescence (LiCA)

● LiCA technology is a homogeneous affinity detection method based on a pair of microbeads that can be used for almost all research applications. LiCA no-wash assays provide simple, rapid,and highly sensitive detection of biomolecules in cell lysates,cell supernatants, serum,and various other types of samples,as well as binding assays with a broad affinity range.Li-CA detection technology can complete 96-well plate detection in minutes,while maintaining a very high signal-to-background ratio,enabling fast, highly sensitive detection techniques.

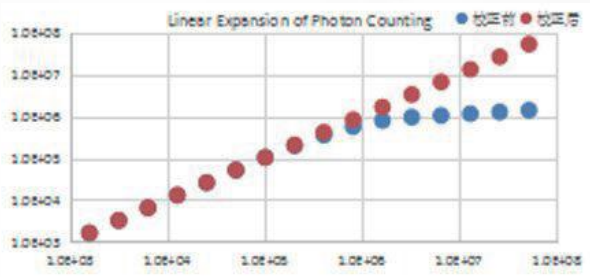


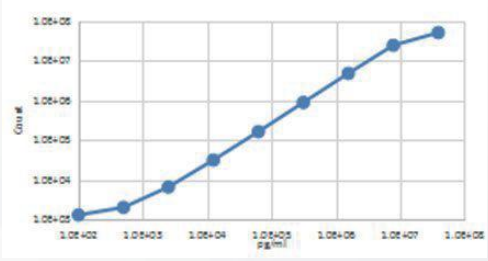
Time-resolved fluorescence(TRF)



● TRF provides higher signal-to-noise ratios,excellent sensitivity&stability,wider dynamic range,as well as flexibility,even in limited or very low sample volumes.TRF detection uses the fluorescence retention effect of lanthanide chelates to reduce the interference of background fluorescence in the reaction that significantly improve the dynamic range and has high signal stability.

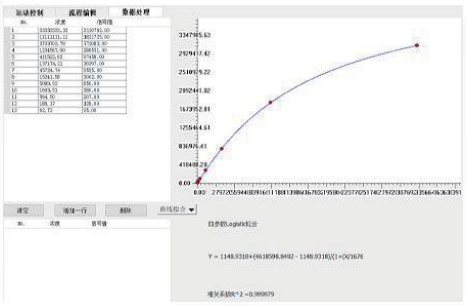
● Using dual-mode photon counting acquisition and correction technology,through the patented photon counting linear fitting technology,the commonly used photon counter with a dynamic range of 10^5 can be expanded to 10^7,expanding the dynamic/linear range by 100-fold and adapting to a wider range of concentration gradient experiments.





● The con-focal optical system can effectively suppress the interference of ambient stray light,and minimize the cross-interference caused by the difference in high and low concentrations between wells.

● In the TRF detection mode,the combination of dual excitation optical paths and high dynamic range PMT technology can ensure that weak signals are detected, while strong signals do not enter the saturation state, and the maximum dynamic range and linear range can be obtained at one timeIn the LiCA mode,laser is used for excitation, which can minimize the influence of non-specific fluorescence in the microplate or reaction sample excited by other light.



● With a built-in incubator for temperature control up to 45°C, I96 provides a uniform incubation and prevents condensation. It is well-suited for temperature-critical applications,including certain enzyme assays and cell-based applications.

● I96 comes with an analysis software,its easy-to navigate interface will guide you through the measurement process and help you get the results you need.A variety of application schemes and experimental templates are preset in the software, suitable for most common applications.Support different measurement modes such as standard curve quantification, end-point method, kinetic analysis, etc.

● I96 has power-on self-test and auto-calibration functions for reliable results.

Automatic dynamic range, which selects optimal reading range based on the signal intensity

The instrument supports 8*12 opaque microplate and automation-friendly plate carrier guarantee an easy integration into robotic platform.

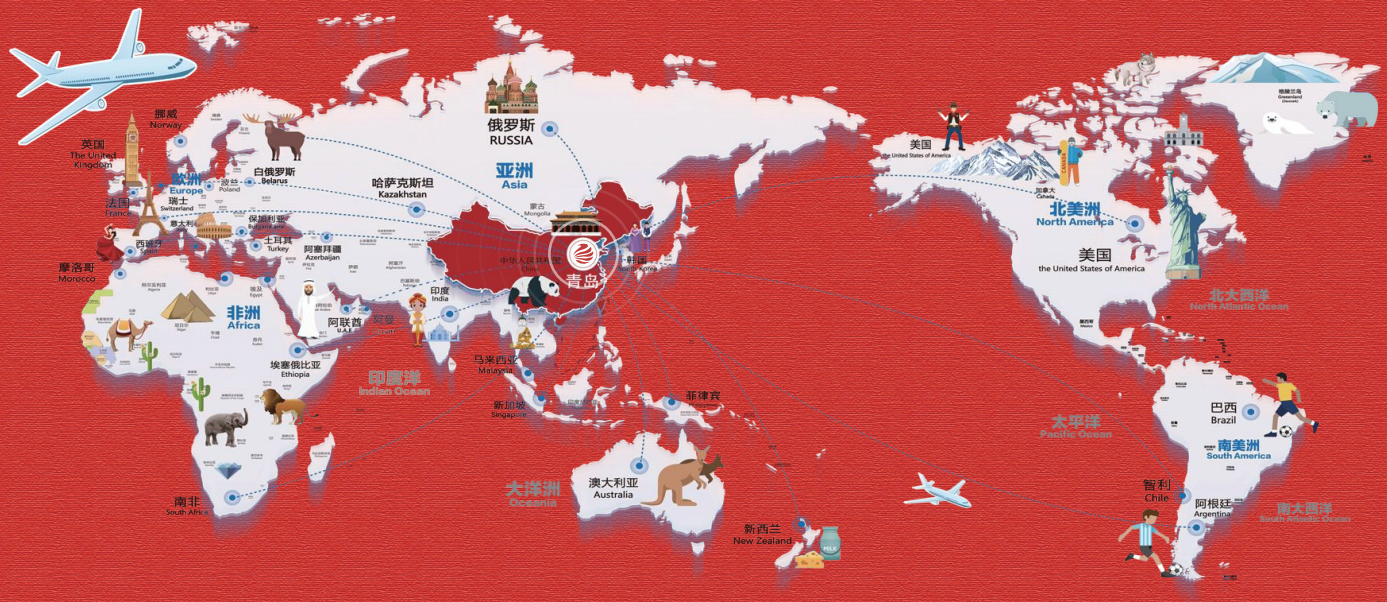
● Small footprint meets the requirements of small space configuration, saving the laboratory space as much as possible.

02 Specifications

Model	IL96	IT96	IC96
Microplate Type	96wells Opaque Microplate		
Reading	TOP		
Temperature	Ambient+5-45℃		
Detection Mode	LiCA	TRF	Glow Luminescence
Excitation Wavelength	685±5nm	365±10nm	NA
Emission Wavelength	610±10nm	610±10nm	380-700nm
Dark Background	<200CPS	<200CPS	<200CPS
Repeatability	<3%	<3%	<3%
Dynamic Range	7-orders of magnitude	7 orders of magnitude	7 orders of magnitude
End-Point	YES	YES	YES
Slope Method	YES	YES	YES
Kinetic Curve	YES	YES	YES
Curve Fitting	Linear fit, logarithmic fit, exponential fit, polynomial fit, four-parameter Logistic fit		
Other Functions	Programmable		
Weight/Dimension	9KGS, 345mm*248mm*210mm		
Power Supply	AC220V，50/60Hz		

Order Information

Product	Description
ILC96	Dual Detection modes Microplate Reader(LiCA and Lumi)
IL96	LiCA Detection mode
IC96	Chemi-Luminescence Detection mode
IT96	Time-Resolved Fluorescene Detection mode
Consumable	White Opaque 96-Well Microplate



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