ALLSHENG

Feyond-MF200

Microplate Reader

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The Feyond-MF200, as a distinctive dual-function microplate detection platform, adopts a unique design of dual optical elements. It features two detection modes: full-wavelength absorbance (UV/Vis/NIR) and fluorescence intensity (FI).

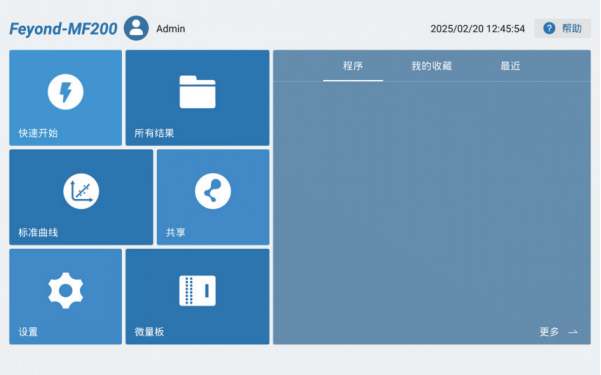
The absorbance detection mode covers a wide wavelength range from ultraviolet to visible light, enabling precise measurement of the degree to which the sample absorbs light at different wavelengths.

Absorbance

Fluorescence

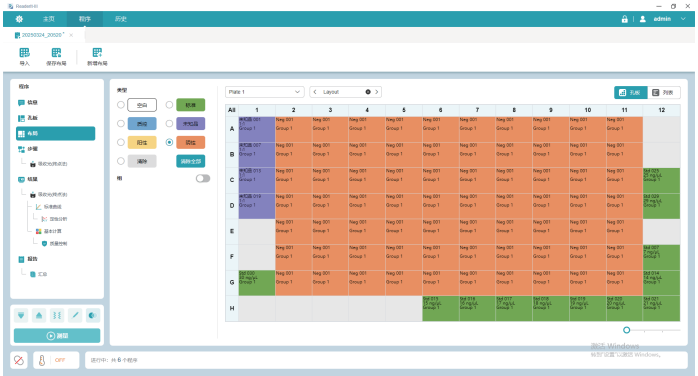
The fluorescence detection mode, on the other hand, makes use of the characteristic that fluorescent substances emit fluorescence under the excitation of light at a specific wavelength. It has high sensitivity and specificity, and is suitable for detecting trace amounts of biomolecules, intracellular signal transduction, analysis of enzyme activity, etc., playing an important role in fields such as drug screening and cell biology research.

Varied Operation



Feyond-MF200——Smart Touch Screen Edition

It is standard - equipped with a 10 - inch rotatable touch screen, which can independently complete parameter setting and data analysis.

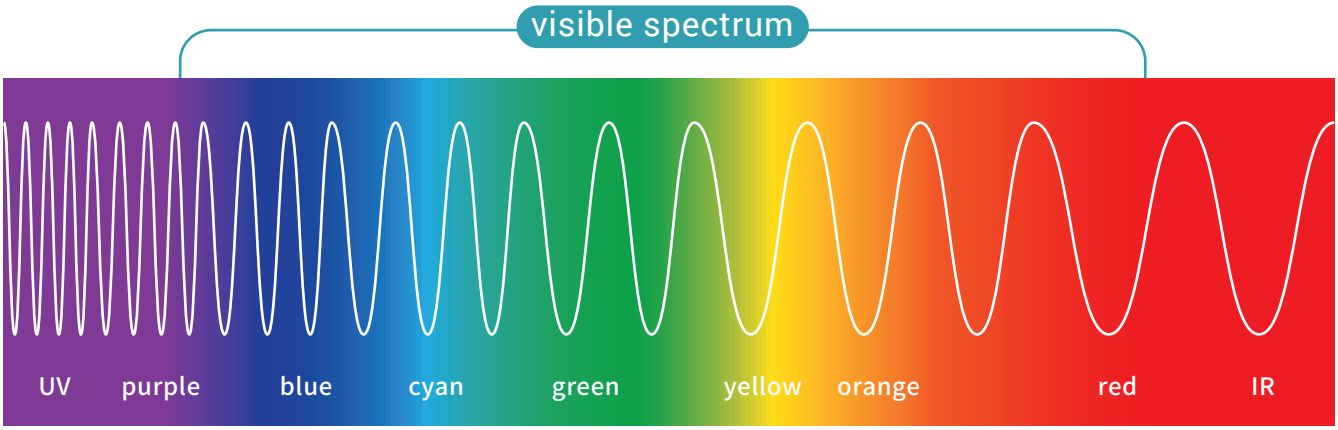


Feyond-MF200A——PC Control Edition

It has no screen, and the computer control and high - throughput analysis are achieved through the ReaderIt - III software.

Broad Wavelength Range

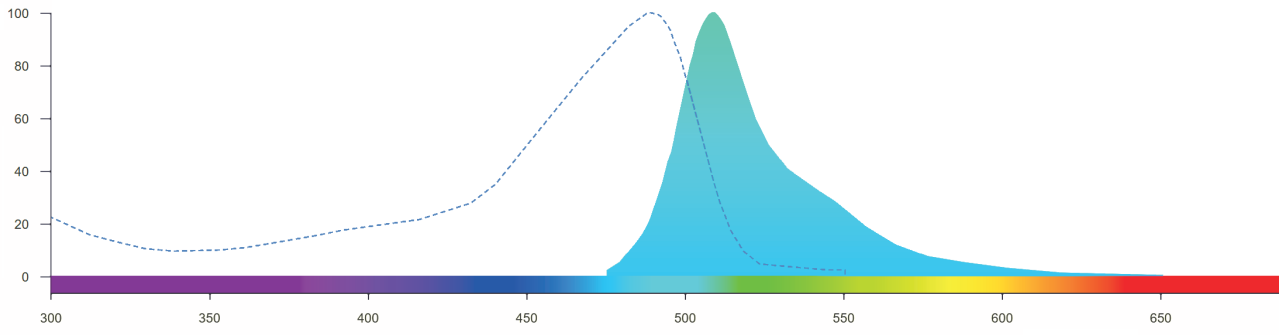
The absorbance detection adopts a full-grating design, achieving a wavelength coverage from 190 to 1000 nm. It enables continuous spectral detection with a step of 1 nm and supports spectral analysis from ultraviolet to near-infrared.



Optical System Optimization

The fluorescence optical path uses a combination of a xenon lamp, filters, and a highly sensitive PMT (Photomultiplier Tube), effectively enhancing the detection sensitivity.

The design of the automatically switchable filter wheel allows for the installation of up to 8 pairs of excitation and emission filters at most. It can conduct simultaneous detection on 8 fluorescence channels, easily enabling the detection of fluorescence intensity and FRET (Fluorescence Resonance Energy Transfer).



Multiple Vibration Modes

It has three vibration modes, namely linear, circular, and double circular, and you can freely select a variety of vibration speeds (rpm), which is more conducive to achieving the dynamic background vibration of different types of samples.

Well Area Scanning Function

It realizes a scanning and detection method with up to 900 points per well by utilizing flexible orbital motion and precise detection sites, reducing differential readings caused by different positions.

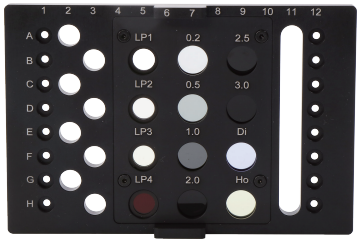
Type

common applications

Drug Target Research	Cell Viability	Nucleic Acid Quantification
Protein Concentration Detection	Cytotoxicity	ELISA
Drug Decomposition Experiment	Cell Proliferation	Tryptophan Autofluorescence Detection
Cell Apoptosis Detection	Fluorescent Protein	Enzymatic Kinetics Detection
Receptor-Ligand Binding	Cell Migration	Tryptophan Quantification

Optional Accessories

u-Nano
Ultra-Micro Plate



ABS Optics
Performance
Verification Plate

ReaderIt-III PC Software

MSS-2 Automatic Sampler

Product Parameter

Absorbance

Support Plate Rack	6 - 384 well plates, microplates
Light source	Xenon lamp
Detector	PD×2
Wavelength accuracy	2nm
Wavelength repeatability	0.2nm
(SD)Half width (FWHM)	≤2.5nm
Wavelength range	190-1000nm，1nm step
Measure range	0-4 OD
Resolution	0.0001 OD
Accuracy	96-precision mode： ±(1.0%+0.003) @ (0.0-2.0] ±2.0% @ (2.0-3.0]
Repeatability	CV < 1.0% fast (0.0 - 3.0] CV < 0.5% accurate (0.0 - 3.0]
Stray light	0.1%@220nm
Linear	R^2 ≥ 0.999 @ [0.0 - 3.0]
Reading time	96-well plate: fast <15 s

Fluorescence

Reading mode	Top reading
Excitation light source	Xenon lamp
Detector	PMT
Filter EX/EM	3 groups, 8 groups are allowed to be installed at one time.
Detection limit	2 pM (optimization condition)
Dynamic range	≥6 logs

Basic Parameter

Vibration Mode	linear, circular, double circular
Incubation Temperature	RT+4℃ ~ 45℃
Temperature Accuracy	±0.5℃ @ 37℃
Temperature Uniformity	1℃ @ 37℃

	Feyond-MF200	Feyond-MF200A
Display	10-inch LCD screen	It has no screen and can be connected to a PC.
Operation mode	touch screen	computer operation
Operating system	android	windows
Data capacity	10GB	/
Network transmission	upload to a PC server via FTP	/
Analysis software	ReaderIt-III PC （optional accessory）	ReaderIt-III PC （optional accessory）
Instrument interface	2 USB Type-A ports, 1 USB Type-B port, 1 Ethernet port, and 1 RS232 interface.	1 USB Type-B port and RS232 interface
Size（W×D×H）	320×435×305 mm	320×435×305 mm
Power supply	AC 100~240V，2A，50~60Hz	AC 100~240V，2A，50~60Hz
Weight	≤25 kg	≤25 kg

Ordering Information

Ordering Information	Product Description
AS-19110-00	Feyond-MF200 Microplate Reader
AS-19120-00	Feyond-MF200A Microplate Reader
AS-19111-01	ReaderIt-III PC software
AS-19011-02	u-Nano Ultra-micro Detection Plate
AS-19011-03	ABS optical performance validation board
AS-19011-04	MSS-2 automatic injector

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