



Microplate Reader One-Stop Solution



Choose a microplate reader that best suits your research needs...

Microplate reader is a high-quality scientific research instrument specially designed for medicine, biology, drug research and development, food and cosmetics industries. Neo Biotech's microplate reader series have the characteristics of flexibility, ease of use and diverse styles. There are not only single-function models, but also "three-in-one" combined multi-mode models; not only filter-type detection systems, but also monochromator detection systems with raster. You can choose the appropriate configurations and models according to the laboratory application and budget.

Multi-Mode Microplate Reader Series Products



Feyond-A300 / A400 / A500



Feyond-F100 / L100

Microplate Reader Series Products



FlexA-200 / 200HT

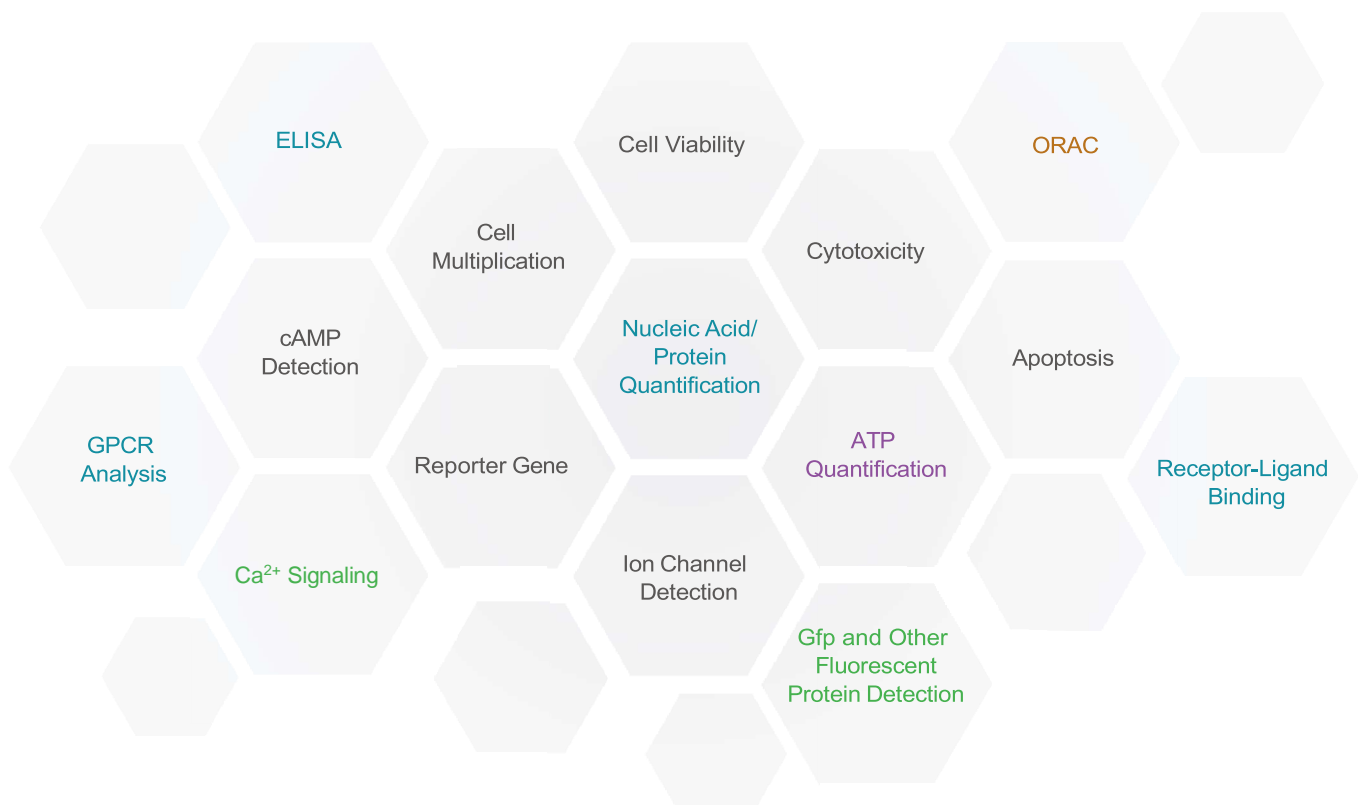


AMR-100 / 100T

Function Configuration Overview

| | Monochromater Type | | | | Filter Type | | |
|----------------------------------|--------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| | FlexA-200/200HT | Feyond-A300 | Feyond-A400 | Feyond-A500 | AMR-100/100T | Feyond-F100 | Feyond-L100 |
| Absorbance-monochromater | ● | ● | ● | ● | | | |
| Absorbance-filter | | | | | ● | | |
| Fluorescence-filter | | ● | ● | ● | | ● | |
| Time-resolved fluorescence | | | ● | ● | | | |
| Fluorescence polarization-filter | | | | ● | | | |
| Luminescence | | ● | ● | ● | | | ● |
| u-Nano Plate | ● | ● | ● | ● | | | |
| Injector (optional) | | ○ | ○ | ○ | | ○ | ○ |
| Page number | P16 | P04 | | | P20 | P06 | P08 |



Application Examples



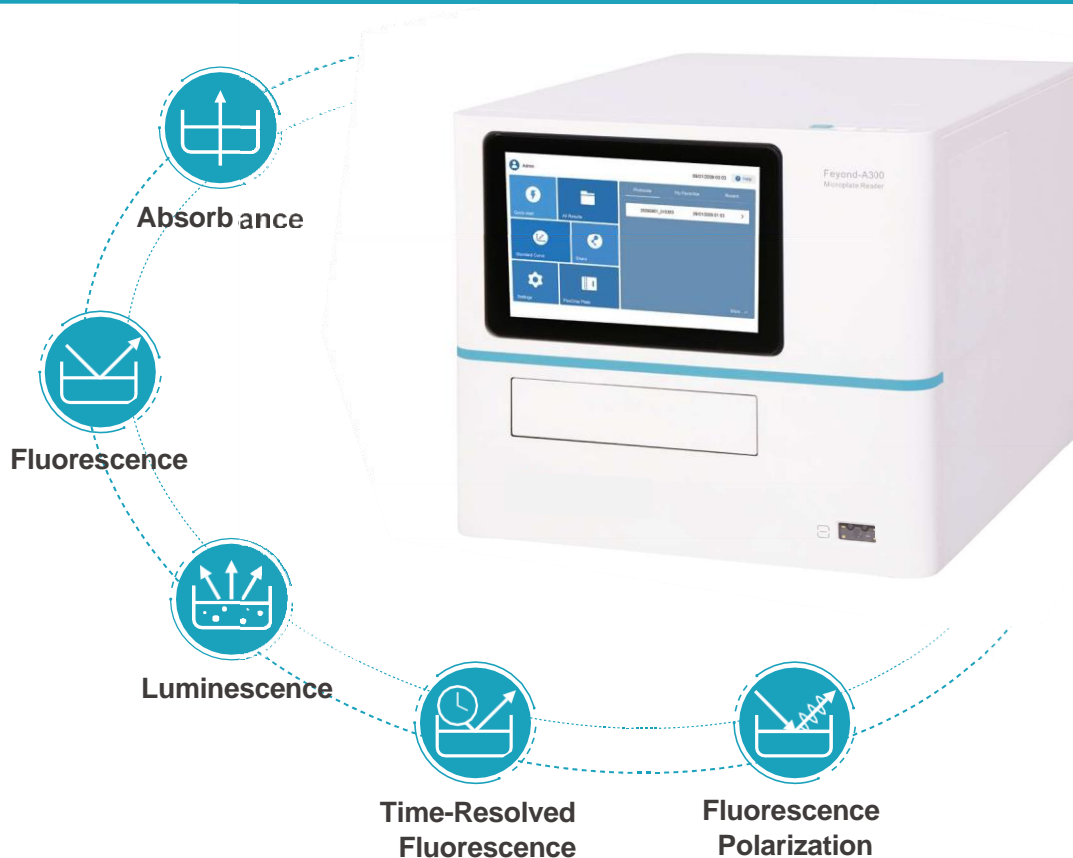
Multi-Mode Microplate Reader

Neo Biotech multi-mode microplate reader series products can meet your various detection needs for microplates. We offer a variety of microplate reader solutions including absorbance, fluorescence, luminescence, time-resolved fluorescence, and fluorescence polarization to meet your specific workflow needs. We also offer a range of special, modular, and upgradeable detection accessories to enhance your detection experience.

Multi-Mode Microplate Reader Selection Guide

| Model | Feyond-A300 | Feyond-A400 | Feyond-A500 | Feyond-F100 | Feyond-L100 |
|----------------------------|-------------------------------------------------------------------------------------|-------------|--------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|
| Plate | 6-384 | | | | |
| Absorbance | ✓ | ✓ | ✓ | -- | -- |
| Fluorescence | ✓ | ✓ | ✓ | ✓ | -- |
| Luminescence | ✓ | ✓ | ✓ | -- | ✓ |
| Time-resolved fluorescence | -- | ✓ | ✓ | -- | -- |
| Fluorescence polarization | -- | -- | ✓ | -- | -- |
| Xenon lamp | ✓ | ✓ | ✓ | ✓ | -- |
| Wavelength range | Absorbance: 200-1000 nm | | | Fluorescence: EX: 200-1000 nm EM: 270-850 nm | Luminescence: 200-850 nm |
| | Fluorescence: EX: 200-1000 nm; EM: 270-850 nm | | | | |
| | Luminescence: 200-850 nm | | | | |
| | -- | -- | Fluorescence polarization: 300 - 850 nm | | |
| Wavelength selection | Absorbance: monochromator / fluorescence: filter | | | Filter | Filter |
| Incubation temperature | RT+4 °C~45 °C | | | | |
| Screen size | 10 inch | | | | |
| System | Android system | | | | |
| Analysis software | Reader It-II | | | | |
| Accessories | Microplate, injector | | | Injector | |
| |  | | |  | |

Feyond-A300/A400/A500 Multi-Mode Microplate Reader



Feyond series multi-mode microplate reader is specially designed for medical, biological and pharmaceutical research and development institutions to meet the needs of various drug development and life science research. The high-quality detection performance ensures high-quality analysis based on molecular biology, biochemistry and cytology.

In addition to the most basic absorbance, fluorescence and chemiluminescence detection functions, high-performance fluorescence polarization and time-resolved fluorescence detection can also be selected. The instrument is compatible with the client-side modular upgrade function, and users can upgrade and equip with microplates and automatic injectors according to their needs.

The absorbance detection is based on monochromator, which can realize continuous spectrum detection of 200-1000 nm without a filter, which meets almost all absorbance detection applications. Fluorescence detection adopts the detection light path of the filter. The fluorescence path composed of Xenon lamp, filter and PMT can fit the characteristics of fluorescent dye to the greatest extent, ensuring excellent detection performance and high-quality detection effect. The optimized optical path design can be used for time-resolved fluorescence and fluorescence polarization detection with higher sensitivity requirements. Luminescence detection also uses PMT as the detector, and the sensitivity can reach a dynamic range of more than 6 orders of magnitude.

The detachable modular fluorescence detection filter can identify the filter information only by scanning the code. The

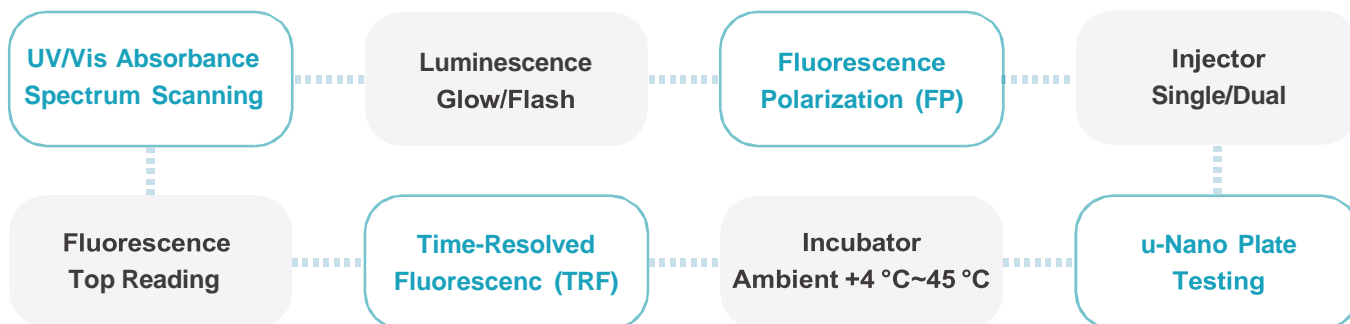
modular design provides the convenience of filter replacement to shorten the operation time.

The instrument is equipped with a 10-inch touch screen. According to the researcher's operation habit of the instrument, the screen angle can be converted through the LCD control button to facilitate the researcher's setting of the instrument. The instrument is no need to connect a computer. The layout, operating parameters, and algorithm and the other settings can be completed by a single machine. The built-in software of the instrument includes multiple algorithm analysis functions of standard curve, qualitative and quantitative, basic calculation, kinetics, spectroscopy and etc, which makes more convenient for the processing and research of experimental data.

Incubation adopts PID temperature control technology. When the experimental plate is covered or closed, the edge effect can be reduced through the differential temperature between the top and bottom of the plate, so as to ensure the data stability of the sample in the process of dynamic analysis.

In addition, the instrument has a code scanning function, which can not only identify the filters informations, but also create a QR code for the experimental program or standard curve. Researcher can quickly import the experimental program into the instrument through the QR code.

Flexible and Changeable Upgradeability



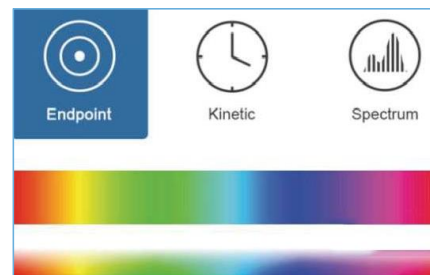
UV/Vis Absorbance

Wavelength selection is done by using an advanced monochromator system. Any wavelength between 200 to 1000 nm can be selected. Using the spectral scanning feature, the whole spectrum of a sample can be scanned in 1 nm increments to allow identification of the optimal measurement wavelength for a new assay.

Long life xenon lamp which can be used for 10⁹

Fast reading mode only need time 15 s for 96-well whole plate

Can be used for spectral scanning, endpoint and kinetic detection



Fluorescence

Instrument is equipped with filter-based fluorescence optics and dichroic mirrors for screening applications such as fluorescence polarization, and TR-FRET. Standard applications such as fluorescence-based DNA/RNA quantification assays are not only supported in microplates, but also in low volume u-Nano ultra-micro plate.

The independent removable filter modules make it more convenient for users to replace the filter. The filter-based fluorescence optics detection ensures high sensitivity, greater light transmission, precise control over transmitted peak shape, excellent blockage of undesired wavelengths. This is ideal for excitation and emission applications. The filters are also the technically preferred and most cost efficient technology for non-absorbance based assays.



Luminescence

Feyond series luminescence microplate readers show excellent sensitivity and wide dynamic range in both glow and flash based assays. The PMT enhances the maximum sensitivity of weak luminescence signals, prevents oversaturation of high signals, effectively improves the detection range of luminescence. The optimized light path minimizes signal crosstalk between holes and ensures the accuracy of experimental results. The precise dual-channel injector ensures assay performance even when assaying high-density 384-well plates.



Time-Resolved Fluorescence (TRF)

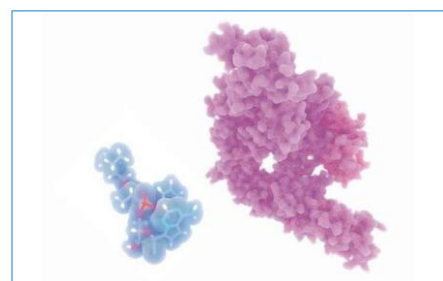
Time-resolved fluorescence is based on lanthanide elements as dyes. When excited, the emission time is much longer than that of ordinary fluorescein. After the excitation light is turned off, the emitted light can still be continuously expressed and released, thereby eliminating the interference of excitation light and scattered light.

Time-resolved fluorescence has high sensitivity, strong specificity, good stability, and short operation flow. It is suitable for ultra-micro analysis in biology and medicine, hormone detection, viral hepatitis marker detection, target cell marker detection, and drug screening.



Fluorescence Polarization (FP)

The optimized optical path design of Feyond-A500 combined with the performance of the fast switching polarizer can effectively reduce the detection deviation. The 10-inch lower computer touch screen can improve the flexibility of experimental parameter setting. This function is often used to detect the interaction between small molecules and macromolecules, such as the determination of drugs and hormones, tyrosine kinase detection, receptor/ligand research, protein/polypeptide interactions, DNA/protein interactions, etc.



Feyond-F100 Fluorescence Microplate Reader



Feyond-F100 is an economical, single fluorescence microplate reader. Its high-quality optical path design makes it have excellent optical performance. This product is designed for bioluminescence scientific research, and can meet the requirements of nucleic acid quantification, fluorescent protein determination, molecular interaction studies, Ca^{2+} flow analysis, as well as reporter genes, fluorescent kinases and cell-based studies.

Long-Life Xenon Light Source

Feyond-F100 adopts high-energy xenon lamp as light source, which can realize high-resolution, high-sensitivity and ultra-fast detection test. The service life can be up to 10 years, no need to warm up, and it can be detected when it is turned on.



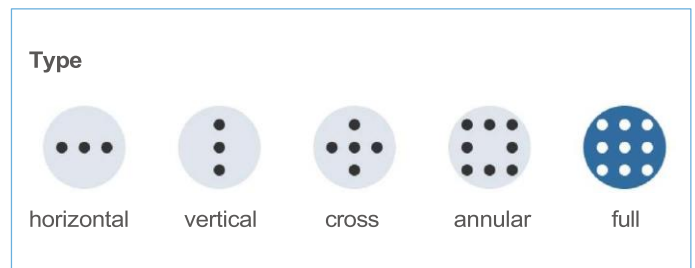
High Performance Filter

Filter-based fluorescence detection has high advantages in sensitivity and wavelength selection. Filters provide higher sensitivity, greater light transmittance, better filtering, and faster band selection. Feyond series adopts the optical path design of xenon lamp and filter, which can make the detection limit reach 1 pM (sodium fluorescein).



Hole Scanning Function

Using flexible orbital motion and precise detection points to achieve a scanning detection method of more than 700 points per well, providing more accurate and comprehensive detection data for cells cultured in suspension, reducing differences caused by different positions reading. The analysis software can give the information of each point scan, and can display the point information of each well in color blocks.



Precise Dynamics

Feyond-F100 can be used for fast kinetic analysis (such as Ca^{2+} flux analysis) with a high-precision injector. It can monitor the fast kinetic reaction in time from the beginning of the experiment to ensure the integrity of the experiment.

Feyond-F100 Fluorescence

Microplate Reader

Common Applications

- Ca^{2+} flow analysis
- Cell proliferation
- Cytotoxicity
- Cell adhesion
- Ion channel
- Immunodetection
- Enzymatic activity
- Phagocytosis
- Nucleic acid quantitative assay
- Bacterial quantitative assay
- Oligonucleotide assay
- Reporter gene detection

Feyond-L100 Luminescence Microplate Reader



Feyond-L100 is a compact and powerful luminescence microplate reader. It can provide a variety of microplate readings, and the fast reading speed combined with the automatic injector can effectively improve your work efficiency.

High-Sensitivity Detection

Feyond-L100 is equipped with a high-sensitivity luminescence detection module, which can realize a variety of throughput detection in 6-384-well plates, and can also accurately quantify micro samples.



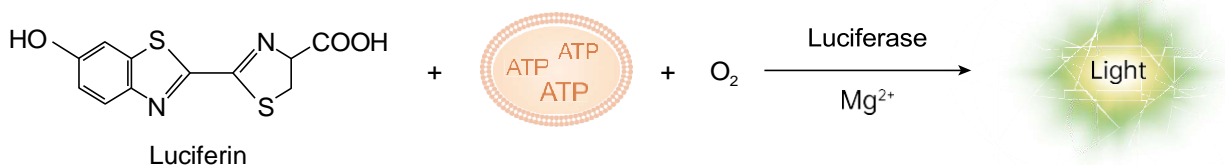
Ultra-Low Well-to-Well Interference

The unique optical path design effectively reduces the signal cross-interference between holes, and the cross-talk is less than 0.005%.



Quick Flash Test

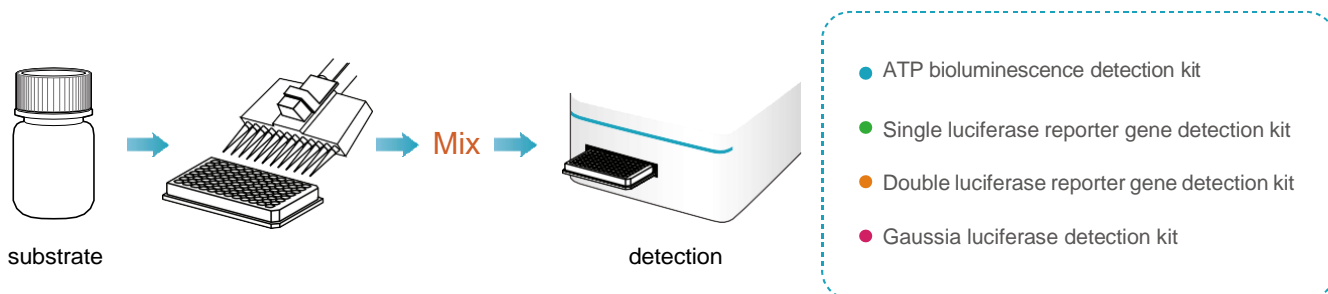
The perfect combination of precise injectors and detection modules provides an easy-to-use solution for cell-associated luciferase reporter gene detection and ATP-based luminescence quantification.



Luminescence Kit

Neo Biotech luminescence series kits are based on the construction, transfection and expression of luciferase reporter gene vector. The luciferase can catalyze the conversion of the substrate and emit photons, and finally the detection system is used to obtain the detection data.

The reagent adopts an optimized reaction system, which is easy to prepare, easy to operate and has high accuracy.



Standard Filter

The chemiluminescence detection function is equipped with two filters, 460 nm and 560 nm, which can effectively reduce the background noise and improve the detection sensitivity during the luciferase reporter gene detection process.

Low Noise PMT

Combined with low-noise PMT, the collected signal is more accurate, and the lowest detection limit can reach 5 amol/well (ATP).

Flexible Options

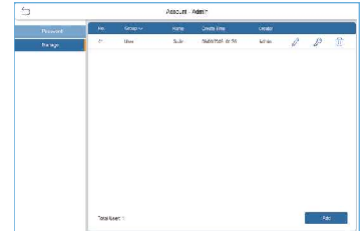
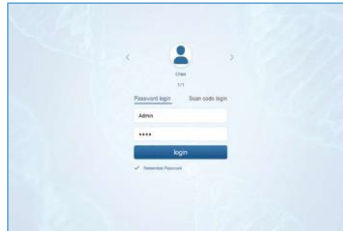
Filters with specific wavelengths can be customized according to experimental needs, providing excellent degrees of freedom for luminescence experiments and more convenient for most typical chemiluminescence experiments, such as ATP quantification, chemiluminescence ELISA, reporter genes, etc.

Easy-to-Use and Flexible Software

Multi-mode microplate reader provides powerful independent instrument control software. Through the 10-inch high-resolution touch screen, you can perform board layout, parameter setting and data analysis operations. The intuitive interface, simple operation, and abundant functions will significantly improve the efficiency of your experiment.

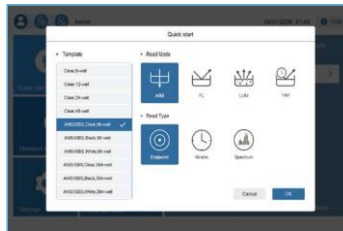
User Authority Classification

- User permissions are divided into four levels, with clear permissions
- The users have independent accounts and passwords to ensure the safety and confidentiality of experimental results



Intuitive Interface Display

- Intuitive selection of function modes, easy parameter setting
- Programs and results are stored independently, making it easy to be found the required applications



Powerful Data Analysis and Process

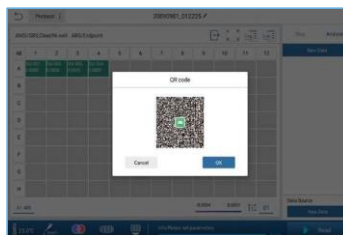
- Provide multiple data processing methods including blank subtraction, standard curve creation, qualitative analysis, quality control, kinetics and spectral analysis
- Algorithm customization: according to your assays needs, can customize the required algorithm



| Well | Abs | Blank |
|------|-----|-------|
| A1 | | |
| A2 | | |
| A3 | | |
| A4 | | |
| A5 | | |
| A6 | | |
| A7 | | |
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| A12 | | |

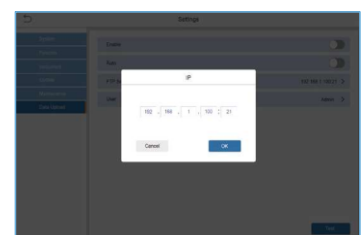
Liberalized User Communication

- The software has with a shared library, which can store the program, results and standard curves for sharing them with others
- The program and standard curve can be created in real time to a QR code, and the required content can be imported only by scanning the code with the instrument



FTP (File Transfer Protocol)

- Upload the data directly to a computer with a FTP server, and users can view the data results at any time in the authorized folder



Optional Accessories

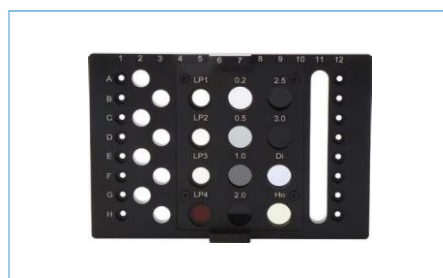
u-Nano Ultra-Micro Plate

- Quickly complete high-throughput quantification of nucleic acid and proteins without samples dilution.
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed.
- No need to calibrate; reliable performance.



ABS Optical Performance Validation Board

- ABS optical performance validation board is mainly used to comprehensively evaluate the performance of absorbance function. It can conveniently, quickly and easily check whether absorbance function of the instrument is working properly. It is suitable for the system check of installation and operation identification.



Modular Filter

- The easy-to-disassemble modular filter will bring an economical and highly sensitive solution to your fluorescence detections. Only by scanning the QR codes on the module, the instrument can read the filter information to ensure accurate experimental parameters for convenient and quick operation.



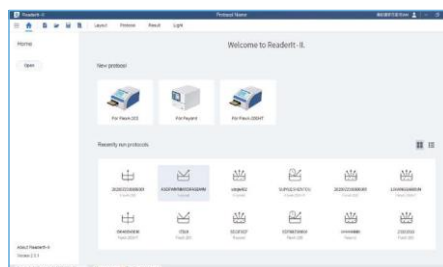
MSS-2 Automatic Injector Module

- Equipped with dual automatic injector modules of the instrument is critically important for a myriad of assays, most notably flashluminescence and calcium flux assays etc. The instrument is equipped with a standard injector module, which can meet the precise sample addition operation of 384-well plates and realize the possibility of rapid detection of high-throughput plates.
- The automatic injector module can be purchased at the same time with the device and can also be upgraded later.
- Liquid injection protection: The software has a liquid injection protection function to effectively prevent the risk of sample overflow.



ReaderIt-II PC Analysis Software

- The ReaderIt-II PC analysis software is with graphical operation interface design. Data export is convenient and fast. Detailed result reports can be created through built-in tools. ReaderIt-II software can also provide a more comprehensive and complex data analysis algorithm than the instrument APP software. The ReaderIt-II PC software makes more convenient for customers to process assay results.



Product Parameter

Technical Parameter

| Model | Feyond-A300 | Feyond-A400 | Feyond-A500 |
|--------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Absorbance | Light source | Xenon lamp | |
| | Detector | PD | |
| | Wavelength accuracy | 2 nm | |
| | Wavelength repeatability (SD) | 0.2 nm | |
| | Half width (FWHM) | <2.5 nm | |
| | Wavelength range | 200-1000 nm, 1 nm step | |
| | Measure range | 0-4 OD | |
| | Resolution | 0.0001 OD | |
| | Accuracy @450 nm | 96-precision mode: $\pm (1.0\% + 0.003 \text{ Abs}) @ (0.0-2.0 \text{ Abs})$ $\pm 2.0\% @ (2.0-3.0 \text{ Abs})$ | |
| | Repeatability @450 nm | CV < 1.0 % or SD < 0.003 fast (0.0-3.0Abs) CV < 0.5 % or SD < 0.003 accurate (0.0-3.0Abs) | |
| | Stray light | 0.1% @220 nm | |
| | Linear @450 nm | $R^2 \geq 0.999 @ [0.0 - 3.0 \text{ Abs}]$ | |
| | Reading time | 96-well plate: fast <15 s | |
| Luminescence | Detector | PMT | |
| | Detection limit | 15 amol/hole; 5 amol/hole (photon PMT) | |
| | Linear dynamic range | 6 logs | |
| | Crosstalk | $\leq 0.005\%$ | |
| | Wavelength range | 200-850 nm | |
| Fluorescence | Reading mode | Top reading | |
| | Excitation light source | Xenon lamp | |
| | Detector | PMT | |
| | Wavelength range | EX: 200-1000 nm; EM: 270-850 nm | |
| | Filter EX/EM | 3 groups: EX470/EM525, EX523/EM564, EX624/EM692 (other wavelengths can be replaced) | |
| | Detection limit | 1 pM | |
| | Linear dynamic range | 6 logs | |
| TRF | Wavelength range | -- | EX: 200-1000 nm; EM: 270-850 nm |
| | Detection limit | -- | 0.05 pM |
| FP | Wavelength range | -- | $\lambda 1-\lambda 2$ |
| | Detection limit | -- | 5 mP |

| Model | | Feyond-L100 |
|--------------|----------------------|----------------|
| Luminescence | Detector | PMT |
| | Detection limit | 5 amol/well |
| | Linear dynamic range | 6 logs |
| | Crosstalk | ≤ 0.005 % |
| | Wavelength range | 200-850 nm |
| | Filter | 460 nm, 560 nm |

| Model | | Feyond-F100 |
|--------------|-------------------------|-------------------------------------------------------------------------------------|
| Fluorescence | Reading time | Top reading |
| | Excitation light source | Xenon lamp |
| | Detector | PMT |
| | Wavelength range | EX: 200-1000 nm; EM: 270-850 nm |
| | Filter EX/EM | 3 groups: EX470/EM525, EX523/EM564, EX624/EM692 (other wavelengths can be replaced) |
| | Detection limit | 2.5 pM |
| | Linear dynamic range | 6 logs |

Basic Parameter

| Model | Feyond-A300 | Feyond-A400 | Feyond-A500 | Feyond-F100 | Feyond-L100 |
|----------------------|------------------------|---------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| Support | Plate | 6-384 well | | | |
| | Accessories | Microplate, injector | | | Injector |
| Shaking & Incubation | Shaking mode | Linear, annular, double annular | | | |
| | Incubation temperature | RT+4 °C ~ 45 °C | | | |
| | Temperature uniformity | ±0.5 °C @37 °C | | | |
| | Software interface | Chinese / English | | | |
| Software | Screen size | 10-inch | | | |
| | Operation method | Capacitive screen touch, mouse | | | |
| | Data capacity | 10 GB | | | |
| | Compatibility | Support PC software, Win7/Win10 64 bit | | | |
| Others | Network transmission | The test data report can be uploaded to the PC server through FTP | | | |
| | Instrument port | 2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector) | | | |
| | Power supply | AC 100-240 V, 50-60 Hz | | | |

Size (WxDxH)

Weight

420x550x386 mm

33 kg

440×420×315 mm

25 kg

Accessory Parameter

| | | |
|--------------------|-------------------------|------------------------------------------------------------|
| Microplate | Sample number | 1-16 |
| | Sample detection volume | 2-4 μ L |
| Automatic Injector | Quantity | 1/2 |
| | Dispensing volume | 5-1000 μ L, 1 μ L increment |
| | Liquid injection speed | 125-500 μ L/s |
| | Accuracy | $\pm 1 \mu$ L @5-50 μ L $\pm 2 \%$ @51-1000 μ L |
| | Waste liquid collection | 50 mL |
| Software | Analysis Software | ReaderIt-II software |

Ordering Information



| Code | Product Description |
|------------|--------------------------------------------|
| NB-12-0036 | Feyond-A300 microplate reader (multi-mode) |
| NB-12-0061 | Feyond-A400 microplate reader (multi-mode) |
| NB-12-0062 | Feyond-A500 microplate reader (multi-mode) |

Microplate Reader

Absorption-based detection modes have been the preferred mode of ELISA and are widely used in ELISA, protein analysis, nucleic acid quantification, and enzyme kinetics experiments.

Neo Biotech microplate reader series has fast plate reading speed, powerful functions and excellent performance, suitable for various medical laboratories, biological laboratories or central laboratories, etc.

Microplate Reader Selection Guide

| Model | AMR-100 | AMR-100T | FlexA-200 | FlexA-200HT |
|------------------------|-------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------|
| Detection mode | Absorbance | | | |
| Plate | 96 | | 96/384 | |
| Light source | Halogen lamp | | Xenon lamp | |
| Wavelength range | 340-750 nm | | 200-1000 nm | |
| Wavelength selection | Filter | | Monochromator | |
| Incubation temperature | -- | RT+4 °C~50 °C | RT+4 °C~45 °C | RT+4 °C~45 °C |
| Screen size | 7-inch | | 10-inch | |
| System | Single-chip microcomputer | | Android | |
| Cuvette | -- | -- | -- | ✓ |
| Analysis software | Reader It-I | | Reader It-II | |
| Accessories | -- | | Microplate | |
| |  | |  | |

FlexA-200/FlexA-200HT Microplate Reader

FlexA-200 microplate reader is a high-quality microplate reader based on a monochromator with a wavelength range of 200~1000 nm. It can be used for spectral scanning, endpoint method and kinetic detection. Suitable for 96-well plates and 384-well plates with and without lids. FlexA-200 can be shaken and cultured in micro- plates, and the culture temperature is up to 45 °C.

It can be operated independently through the built-in software of the instrument, and also can be operated by the ReaderIt-II software.



High Quality Data and Stable Performance

The optional system makes sure the high quality data and stabilized performance of FlexA-200.

- Double beam optional system has the reference optional channel system, which make the data more stabilization;
- After the instrument is started, the light source, grating, detector, position, etc. are automatically calibrated to ensure stable and reliable operation of the instrument;
- Long life xenon lamp which can be used for 10⁹ times.

Choose Detection Wavelength Freely with Raster

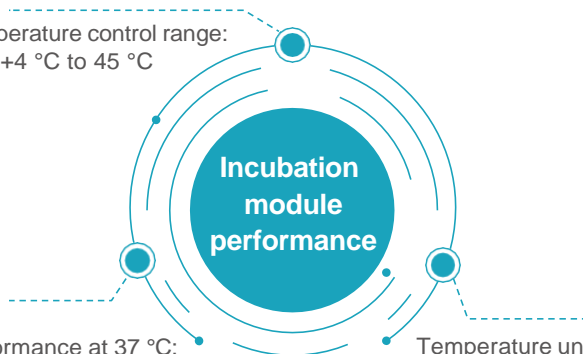
FlexA-200 adopts the xenon flash lamp as light source, which chooses the wavelength range from 200-1000 nm with 1 nm step by grating monochromator for the full spectrum scanning.

u-Nano Ultra-Micro Plate

- Quickly complete high-throughput quantification of micro nucleic acid and proteins without samples dilution;
- Independent lower computer software, can quickly read the sample concentration and purity report;
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed;
- During continuous testing, you only need to wipe off the last batch of samples with dust-free paper.



Temperature control range:
RT. +4 °C to 45 °C



Performance at 37 °C:
Average temperature
difference between wells: ±0.5 °C

Temperature uniformity
of well plate: <1.0 °C (96-
well plate without cover)

11 Hz

Intermediate
speed

**Liner
shaking
function of
microplate**

Low
speed

High
speed

5 Hz

20 Hz

🔴 Cuvette Mode (FlexA-200HT Model)

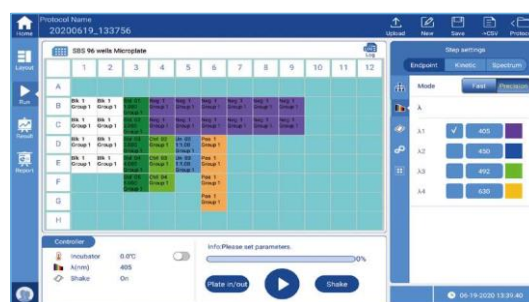
- Independent cuvette slot;
- Detection wavelength 200~1000 nm;
- With incubation function, RT+4 °C to 45 °C;
- Independent cuvette software can be directly used for endpoint method, kinetics, spectral scanning and standard curve establishment.



🔵 FlexA-200 Instrument Interface Can Be Used Independently for Rapid Detection

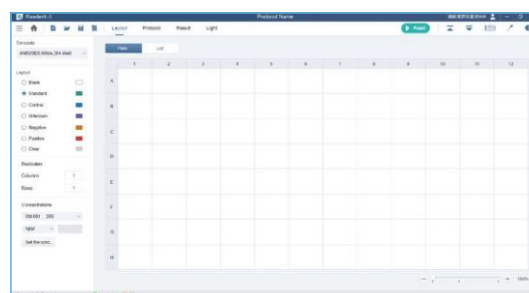
FlexA-200 built-in software is designed for independent use of the instrument. With a 10-inch high-resolution touch screen and a graphical user interface, the editing of programs and template presets are very simple.

In addition, support for USB data export is fast, convenient and easy to operate.



🔵 Through PC Software, Advanced Detection Mode and Powerful Data Analysis Can Be Set

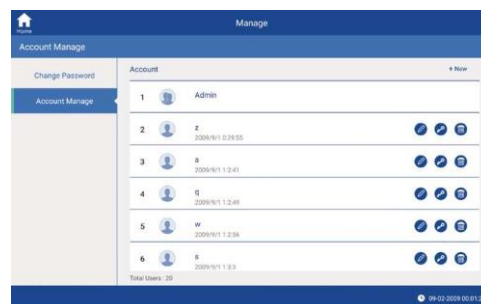
ReaderIt-II software designed with graphical operation interface has a simulation demonstration function. Data export is convenient and fast, and detailed result reports can be generated through built-in tools. The built-in software and ReaderIt-II of the FlexA-200 instrument are both Chinese/English interfaces. GUI is convenient for customers to use.



Powerful and Flexible Software

User Authority Classification

- Administrator can manage the accounts of different sub-users, which is convenient for the account management of experimenters;
- Set up multiple user accounts and passwords to facilitate the confidentiality of experiments for different users;
- Only personal experiment content is left in the sub-account, which is convenient for experiment recording;
- No password is required for the guest account, and you can quickly enter the experimental program.



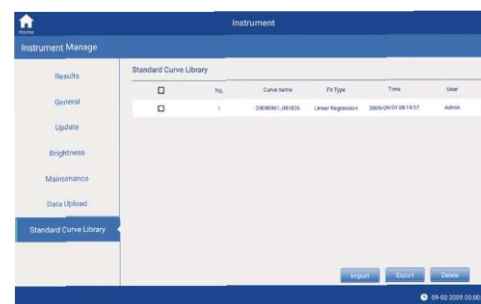
Powerful Data Analysis And Process

- Provides multiple data processing methods including blank subtraction, standard curve creation, qualitative analysis, quality control, kinetics, and spectral analysis to help you obtain the analysis results you want.



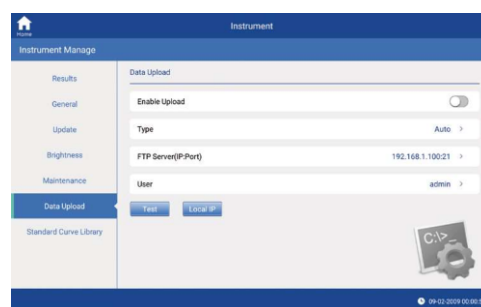
Standard Curve Library

- The instrument is equipped with a standard curve library. The standard curve established in the first experiment can be stored in the standard curve library, which is convenient for direct being used in the next experiment. No need to build a standard curve every time, more convenient and faster.



FTP (File Transfer Protocol)

- Upload instrument data directly to a computer with an FTP server, and users can view the data results at any time in the authorized folder.



Multiple Report Export Types

- The instrument comes with four data file export modes: Excel, TXT, CSV, and PDF.



Product Parameter

| Model | FlexA-200/FlexA-200HT Microplate Reader |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Display | 10 inch high-resolution capacitive touch screen |
| Light source | Xenon flash lamp/number of flashes>10 ⁹ |
| Wavelength range | 200~1000 nm |
| Wavelength accuracy | 2 nm |
| Wavelength repeatability | 0.2 nm |
| Optical system | Monochromator, 1 nm step |
| Reading range | 0~4.0 OD |
| Bandwidth | <2.5 nm |
| Detection System | 2 silicon photodetectors, one for measurement, one for reference |
| Linear @450 nm | R \geq 0.999, [0.0 - 3.0 Abs] |
| Absorbance accuracy @450 nm | \pm (1.0 % + 0.003 Abs), (0 ~2.0 Abs); \pm 2.0 %, (2.0 ~ 2.5 Abs] |
| Absorbance repeatability @450 nm | CV<0.5 % or SD<0.003 accurate mode; CV<1.0% fast mode |
| Measuring speed | 96-well plate: fast mode <8 seconds, accurate mode <28 seconds (end point method) |
| Shaking | Linear, 3 speeds adjustable |
| Temperature range | RT+4 °C to 45 °C |
| Temp. accuracy & uniformity | \pm 0.5 °C @37 °C, \pm 0.5 °C @37 °C |
| User interface | Built-in software, independent use |
| Analysis software | ReaderIt-II software |
| Operation display | Touch screen input, Android system, 10-inch LCD display full board information, can be connected with keyboard and mouse |
| Internal storage | 16 G storage, can store more than 20,000 data files |
| Port | 1 type B USB interface, 2 type A USB interfaces, 1 network port |
| Robotic arm compatible | Temporarily incompatible |
| Power supply | DC24 V 6.67 A |
| Dimension | 300x500x260 mm |
| Net weight | 15.5 kg |

Ordering Information

| Code | Product Description |
|-----------|-----------------------------|
| NB-12-048 | FlexA-200 microplate reader |

AMR-100/AMR-100T Microplate Reader

The AMR-100/AMR-100T is a high-quality light absorption microplate reader based on a filter, with a wavelength range of 340 nm~750 nm, suitable for scientific research and clinical applications. 7-inch touch screen color LCD display, no keyboard required, easy to use.

* AMR-100T medical record certificate No.: Zhejiang machinery registration permission 20182400109

* AMR-100T has additional incubation function, with temperature range is from RT+4 °C to 50 °C

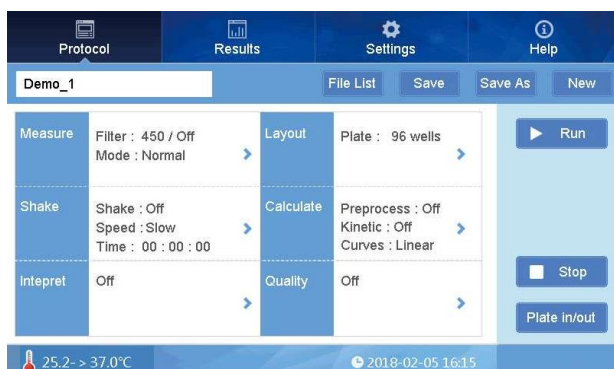
Feature

- High-resolution 7-inch color touch screen, easy to operate, no keyboard required, easy to use;
- Multiple software configuration, which can be used as a single machine or connected with a computer, and the results are exported in real time;
- Absorbance range: 0.0~4.000 Abs, meeting different measurement requirements;
- 8-position filter wheel, standard 4 filters, optional other filters;
- The built-in software can provide instrument control and data analysis, and can be directly connected to a U disk;
- The detection speed is fast, and the whole 96-well microplate detection can be completed within 6 seconds.

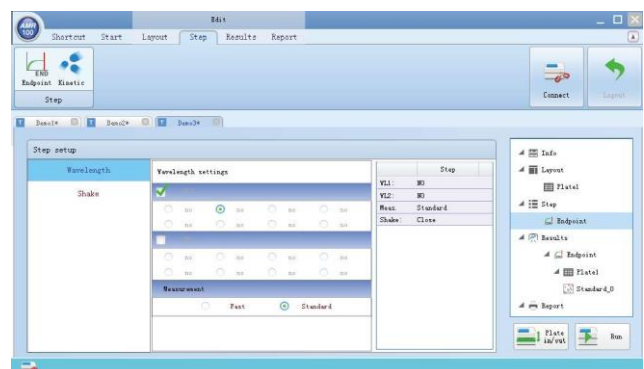


AMR-100 Unique Advantages of Microplate Reader

- High-resolution 7-inch touch screen, simple and intuitive operation, no keyboard required;
- Visual layout, convenient and practical;
- The microplate reader is equipped with the standard control and data analysis software ReaderIt-I, which is convenient and quick for data detection;
- Powerful data analysis function and excellent result report, not only can run the analysis independently, but also run the analysis on the computer.



AMR-100T Operation Interface



ReaderIt-I Software Interface

Product Parameter

| Model | AMR-100 | AMR-100T |
|------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Display | 7 inch high resolution capacitive touch screen | |
| Light source | 6 V, 10 W halogen lamp | |
| Wavelength range | 340 nm~750 nm | |
| Optical filter | 8-position filter wheel, standard 4 filters: 405 nm, 450 nm, 492 nm, 630 nm | |
| Absorbance range | 0~4.0 Abs | |
| Resolution | 0.001 Abs | |
| Linear range | $R^2 \geq 0.995$ absorbance range 0~3.0 Abs | $R^2 \geq 0.995$ [0,3 Abs] |
| Wavelength accuracy | $\leq \pm 2$ nm | |
| Absorbance repeatability | CV ≤ 0.3 % [0,3 Abs]; CV ≤ 1 % [3,4 Abs] | |
| Absorbance stability | ≤ 0.005 Abs [0,3 Abs] ≤ 2.0 % [3,4 Abs] | $\leq \pm 0.005$ Abs [0,2 Abs] ≤ 0.3 % [2,3 Abs] ≤ 2.0 % [3,4 Abs] |
| Absorbance accuracy | $\leq \pm 0.005$ Abs [0,2 Abs] $\leq \pm 0.01$ Abs [2,3 Abs] $\leq \pm 1.5$ % [3,4 Abs] | $\leq \pm 0.005$ Abs [0,2 Abs] $\leq \pm 1$ % [2,3 Abs] $\leq \pm 1.5$ % [3,4 Abs] |
| Sensitivity / detector | ≥ 0.01 A / photodiode | |
| Measuring speed | 6 s / 96-well plate, fast mode; single wavelength <15 s / 96-well, dual wavelength <28 s / 96-well (common mode) | |
| Incubation temperature range | -- | RT+4 °C ~ 50 °C |
| Temperature accuracy | -- | ± 0.5 °C @ 37 °C |
| Temperature uniformity | -- | ± 0.5 °C @ 37 °C |
| User Interface | Built-in software, touch screen input, external mouse | |
| Internal storage | Can store 1000 measurement programs and measurement results | |
| Port | 3xUSB ports, connecting computer, printer and USB drive | |
| Power supply | AC100~240 V, 50~60 Hz, 2 A | |
| Dimension (WxDxH) | 295x440x225 mm | |
| Net weight | 10 kg | 11 kg |

Ordering Information

| Code | Product Description | Code | Product Description |
|---------------|----------------------------|---------------|-----------------------|
| NB-12-0035 | AMR-100 microplate reader | NB-12-0035-17 | Optical filter 510 nm |
| NB-12-0050 | AMR-100T microplate reader | NB-12-0035-18 | Optical filter 520 nm |
| NB-12-0035-01 | Optical filter 340 nm | NB-12-0035-19 | Optical filter 532 nm |
| NB-12-0035-02 | Optical filter 380 nm | NB-12-0035-20 | Optical filter 546 nm |
| NB-12-0035-03 | Optical filter 405 nm | NB-12-0035-21 | Optical filter 560 nm |
| NB-12-0035-04 | Optical filter 415 nm | NB-12-0035-22 | Optical filter 562 nm |

| Code | Product Description | Code | Product Description |
|---------------|-----------------------|---------------|------------------------------|
| NB-12-0035-05 | Optical filter 450 nm | NB-12-0035-23 | Optical filter 600 nm |
| NB-12-0035-06 | Optical filter 492 nm | NB-12-0035-24 | Optical filter 620 nm |
| NB-12-0035-07 | Optical filter 540 nm | NB-12-0035-25 | Optical filter 646 nm |
| NB-12-0035-08 | Optical filter 570 nm | NB-12-0035-26 | Optical filter 663 nm |
| NB-12-0035-09 | Optical filter 578 nm | NB-12-0035-27 | Optical filter 700 nm |
| NB-12-0035-10 | Optical filter 590 nm | NB-12-0035-28 | Optical filter 750 nm |
| NB-12-0035-11 | Optical filter 595 nm | NB-12-0035-50 | Halogen lamp |
| NB-12-0035-12 | Optical filter 630 nm | NB-12-0035-51 | Printer |
| NB-12-0035-13 | Optical filter 650 nm | NB-12-0035-52 | Printer paper |
| NB-12-0035-14 | Optical filter 690 nm | | |
| NB-12-0035-15 | Optical filter 470 nm | NB-12-0035-54 | ReaderIt-I analysis software |
| NB-12-0035-16 | Optical filter 490 nm | | |

APW-200 Microplate Washer

Microplate washer is an automatic plate washer for washing 96-well microplate. compact construction, efficient washing and durable, it is suitable for the washing of flat bottom, U-shaped bottom, v-shaped bottom, c-shaped bottom of various specifications. It has various special functions selected and matched by other board washer. The programmed design is especially suitable for laboratory with heavy workload of multi-application of microplate. It can also be used to soak and shock.

Feature

- Low residual liquid, each well $\leq 1 \mu\text{L}$;
- 4.3 inch color LCD display, easy to operate;
- Microplate can be soaked and shocked simultaneously;
- Strainer in the pipeline and automatic washing functions avoid the liquid blocking the pipeline;
- Pipeline flushing and distilled water washing functions can be set, flushing time and number of spacers can be adjusted;
- With pause function, you can continue to complete the rest of washing procedures;
- Washing bottle has uniform volume calibration line, alarm function to avoid the washing liquid used up or waste liquid from overflow;
- 100 programs can be save.



Easy Operation

- The APW-200 microplate washer has 4.3 inch LCD display with friendly interface, U-disk can be to transfer the datas between the PC and the washer or between two washers, it can also be used to upgrade the software. The washing head can be replaced easily for different kinds of microplates.

Safety and Reliable Feature

- The APW-200 microplate washer is equipped with liquid position sensor to avoid the washing liquid used up or waste liquid from overflow, minimize the risk and avoid the liquid being sucked into the pump to break the equipment. Besides it has shaking function, which can improve the washing efficiency.

| Model | APW-200 Microplate Washer |
|---------------------------|--------------------------------------------------------|
| Residual liquid | ≤1 μL |
| Washing heads | 1×8 or 1×12 heads |
| Plate types | Flat, U, V, C bottom |
| Washing method | Single-point, two-point and multi-point |
| Washing volume | 50-2000 μL, increase by 50 μL |
| Washing times | 1~99 times |
| Washing channels | 3 |
| Bottles | 3 pcs 2.5 L washing bottle, 1 pcs 2.5 L washing bottle |
| Dispense accuracy | ≤2 % @300 μL |
| Liquid injection accuracy | CV≤1.5 % @300 μL |
| Soaking and shaking time | 99'00" |
| Date connection | USB |
| Weight | 12 kg |
| Power supply | AC100-240 V; 50/60 Hz |

Ordering Information

| Code | Product Description |
|---------------|-------------------------------------------------|
| NB-12-0034 | APW-200 microplate washer AC100-240 V, 50/60 Hz |
| NB-12-0034-01 | 8 needles washing head |
| NB-12-0034-02 | 12 needles washing head |
| NB-12-0034-03 | Washing liquid bottle |
| NB-12-0034-04 | Waste liquid bottle |