

UltraNano Plus Micro Spectrophotometer



Product Description

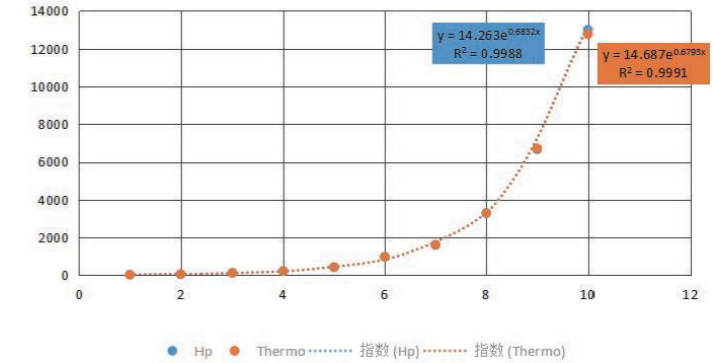
UltraNano Plus does not require a computer equipped full wavelength (190-850nm) micro spectrophotometer. It can quickly and accurately detect nucleic acids, proteins and cell solutions. And equipped with a colorimetric dish mode for detecting bacterial and other culture medium concentrations, with a minimum limit of 0.5ng/uL (dsDNA).

The sample size required for each measurement of nucleic acid testing is only 0.5 to 2.0uL, and the sample can be directly placed on the sampling table without the need for accessories such as colorimetric cups or capillaries. After the measurement is completed, You can choose to directly wipe off the sample or use a pipette to recover the sample. All steps are simple, fast, and completed in one time. It can be applied in various fields such as clinical disease diagnosis, blood transfusion safety, forensic identification, environmental microbiology testing food safety monitoring and molecular biology research.

Product Feature

- Light source flicker: The flicker frequency of the light source is short, which increases the service life of the light source compared to traditional detection methods. The high intensity stimulation is small, and the test sample can be detected faster and is not easily degraded;
- Adopting 4 optical paths detection technology: unique motor control technology, By using "4" optical paths detection method, with better stability, repeatability, linearity, and larger measurement range;
- Sample contraction: The sample does not need to be diluted, and the concentration range of the measurable sample is more than 50 times that of a conventional UV visible spectrophotometer;
- Fluorescence function: paired with fluorescence quantitative reagents, it can detect pg level concentration of dsDNA;
- Built-in printer: With a simple and easy-to-use data to printer option, you can directly print reports through the built-in printer;
- Operating system: An independently developed Android operating system with a 7-inch capacitive touch screen, which does not require a computer to be connected and can be tested on a single machine.

- Equipped with OD600 bacterial solution and microbial detection: Equipped with OD600 optical path detection system, it is more convenient to detect the concentration of bacterial, microorganisms, and other culture solutions than the dish mode.
- Strong repeatability and high linearity:



Accessories

| Item No. | Description |
|----------------|-------------------|
| UltraNano Plus | Colorimetric dish |

Detection Mode

Nucleic Acid Testing

Can quickly and accurately detect nucleic acids.

Protein Testing

Can quickly and accurately detect proteins.

OD600 Detection

Equipped with a colorimetric dish mode for detecting the concentration of bacteria and other culture media.

Software Functions

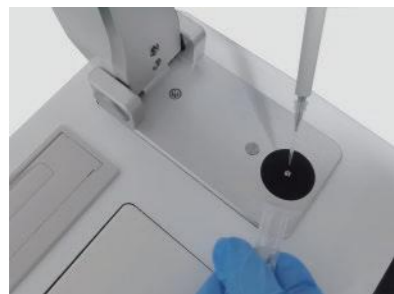
Main interface
Simple and user-friendly interface

Measurement interface
Fast and stable operation without delay.

Data interface
Data export, batch printing, history recording function.

Operation Instruction

Micro detection



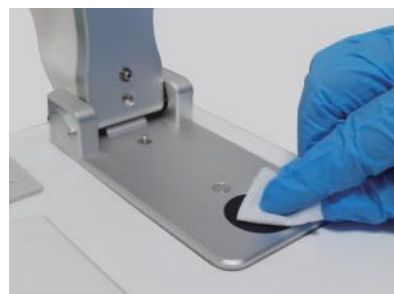
Before using the instrument, first use 0.5~2.0uL clean two sample stands and two light machine stands with ultrapure water or sample buffer solution, and wipe the solution clean with dust-free paper; Repeat at least 2 times.



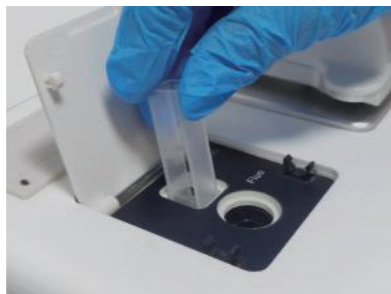
Suck 0.5~2.0uL sample buffer onto the testing machine base, lower the testing arm, click "blank" to obtain the baseline, and wipe it clean with dust-free paper after completion Colorimetric dish detection.



Suck 0.5~2.0uL sample solution onto the testing machine base, lower the testing arm, and click on "sample" for testing.



After testing, use 0.5~2.0uL clean two sample holders and two light holders with ultrapure water, and wipe the solution clean with dust-free paper; 3 to 4 times.



Insert the OD600 detection cuvette and click on "sample" to test the absorbance of the sample.

Technical Specification

| Model | UltraNano Plus |
|-------------------------------------|--|
| Optical Path | 0.02mm, 0.05mm (high concentration measurement) 0.2mm, 1.0mm (Ordinary concentration measurement) |
| Detector | HAMAMATSU UV Enhanced CMOS Linear Array Sensing |
| Nucleic Acid/Protein Detectin Range | 0~27,5000 ng/uL dsDNA 0.06~820mg/mL BSA |
| Fluorescence Sensitivity | dsDNA: 0.5pg/uL |
| Fluorescence Linearity | ≤1.5% |
| Wavelength Range | 190nm ~ 850nm |
| Sample Volume | 0.5 ~ 2.0uL |
| OD600 Absorbance range | 0 ~ 6.000Abs |
| OD600 Absorbance Stability | (0,3)≤0.5%, (3,4)≤2% |
| OD600 Absorbance Accuracy | (0,2)≤0.005A, (2,3)≤1%, (3,4)≤2% |

| Model | UltraNano Plus |
|--------------------------------|--|
| OD600 Absorbance Repeatability | (0,3)≤50.%, (3,4)≤2% |
| Absorbance Range | 0.02~300A (Equivalent to 10mm) |
| Absorbance Accuracy | 0.002Abs (0.2mm optical path) |
| Absorbance Accuracy | ±1% (7.332Abs at 260nm) |
| Spectral Resolution | <1nm |
| Photometric Accuracy | ±0.005A or ±1% |
| Wavelength Accuracy | Within ±1% |
| Wavelength Reproducibility | <±0.2nm |
| Sample Wavelength Scanning | 190~850nm |
| Base Measurement Required | 0.5~2.0uL |
| Sample Base Material | Quartz fiber optic and stainless steel |
| Detecting Time | < 5 seconds |
| Power Consumption (Standby) | 5W |
| Data Output Method | USB |
| Light Source | Xenon flashing lamp |
| Power Adapter | 24V DC |
| Power Consumption | 25W |
| Overall Dimension | W200mm x D260mm x H165mm |
| Net Weight | 5 kg |

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