Professional Manufacturer of UV-Vis Spectrophotometers

# NanoSpot
# NanoSpot Plus

## Micro-Volume Spectrophotometer




MAPADA
since 2006

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## Product Features

- **Full Coverage of Dual Modes, One Instrument for All Scenarios**

  The entire series comes standard with dual detection modes: micro-volume (0.2-2 μL) and traditional 10 mm cuvette. No equipment replacement is required, easily balancing the detection of trace precious samples and regular batch samples, and meeting multi-scenario requirements in one stop.

- **Accurate Full-Spectrum Analysis, No Detail Omitted**

  Covers a wide full wavelength range of 190-1000 nm with a narrow spectral bandwidth of 1.8 nm, accurately capturing spectral details of complex samples. Obtain comprehensive data with a single test without the assistance of additional instruments, and deeply explore the core characteristics of samples.

- **Multi-gear Adjustable Optical Path (Plus Model), No Limit for High and Low Concentrations**

  0.1-0.5 mm adjustable optical path with intelligent reminder for data distortion. High-concentration samples can be directly detected without repeated dilution, and low-concentration samples can be accurately captured. No limitation on sample adaptation, greatly improving detection efficiency.

- **Accurate Quantification for Macro and Micro Volumes, Sample-Saving and Efficient**

  Relying on ultra-high absorbance accuracy and repeatability, it supports one-click establishment and calling of standard curves. The 0.2-2 μL micro-volume detection avoids wasting precious samples, with stable and reliable data and fast, worry-free operation.

- **Custom Method Library, One-Click Adaptation to Diverse Needs**

  Supports unlimited addition of exclusive customized detection protocols, which can be called with one click after being stored in the method library. No need to re-establish methods repeatedly, efficiently adapting to personalized and diverse detection needs and reducing operational complexity.

- **Open Data Interface, Flexible Integration and Interconnection**

  An open data interface protocol is provided. Users can realize interconnection with other equipment through simple development, flexibly meet system integration requirements, expand more application scenarios, and adapt to large-scale experimental processes.





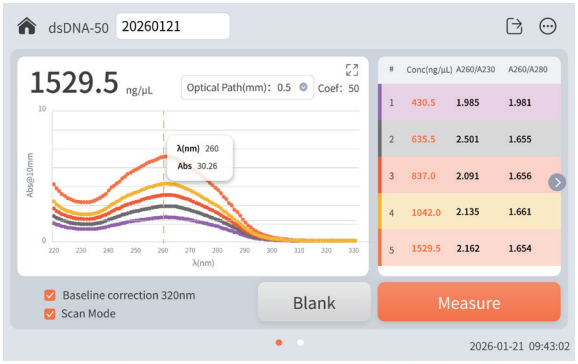
Dual detection modes: micro-volume (0.2-2 μL) and traditional 10 mm cuvette

# Product Functions

## Nucleic Acid Measurement

Based on the principle of characteristic ultraviolet absorption of nucleic acids at 260 nm, built-in exclusive detection protocols for dsDNA, ssDNA and RNA, with no complicated debugging required. Start the measurement with one click, the system automatically calculates the nucleic acid concentration and synchronously outputs the dual purity ratios of A260/A230 and A260/A280, fully meeting the core quality control requirements of nucleic acid samples.




## Protein Measurement

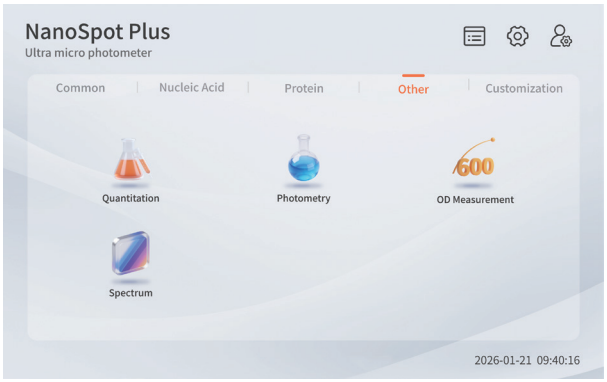
Designed for pure protein samples based on characteristic absorption at 280 nm, equipped with multiple detection systems: 1 Abs=1 mg/mL general method, IgG-13.7, BSA-6.7, Lysozyme-26.4, covering mainstream protein detection scenarios. Directly output protein concentration and A260/A280 purity ratio without additional conversion, improving experimental efficiency.

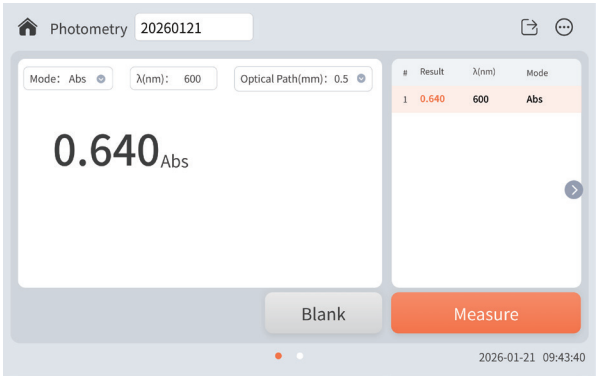





## Photometric Measurement

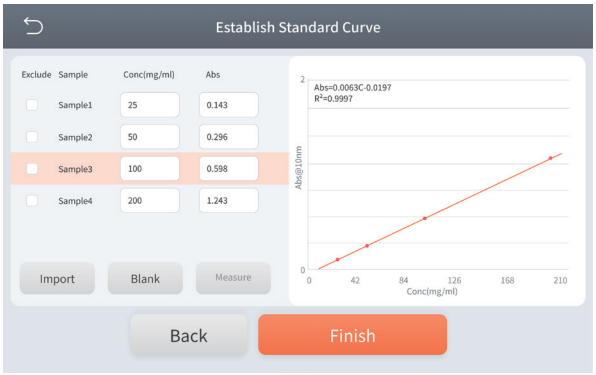
Supports the measurement mode of conventional spectrophotometers, covering the full wavelength range of 190-1000nm, and the target wavelength can be set arbitrarily to accurately detect the absorbance and transmittance at the corresponding wavelength. One-click switching of measurement modes flexibly adapts to diverse basic photometric analysis scenarios.

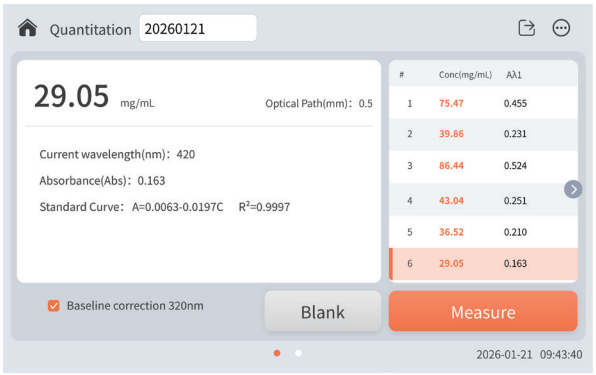



## Quantitative Measurement

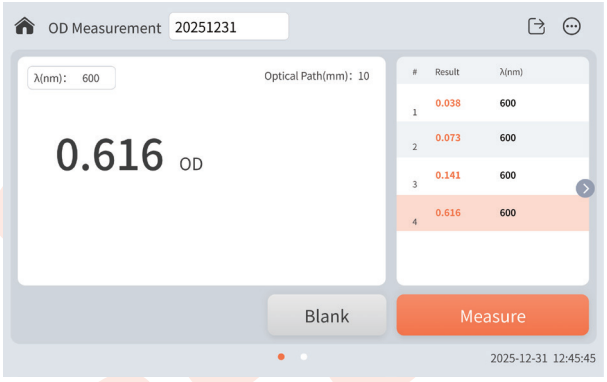
Adopts the standard curve method to determine sample concentration, with three core advantages: automatic calculation of curve and linear correlation coefficient to eliminate manual calculation errors; support for custom experimental parameters to adapt to non-standard detection needs; stored standard curves can be called with one click without re-establishment, greatly shortening the detection cycle.

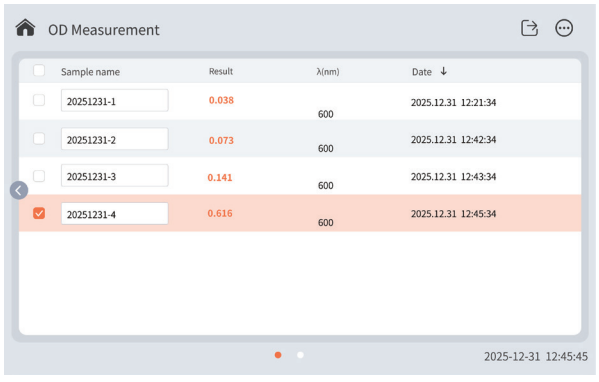



## OD600 Measurement

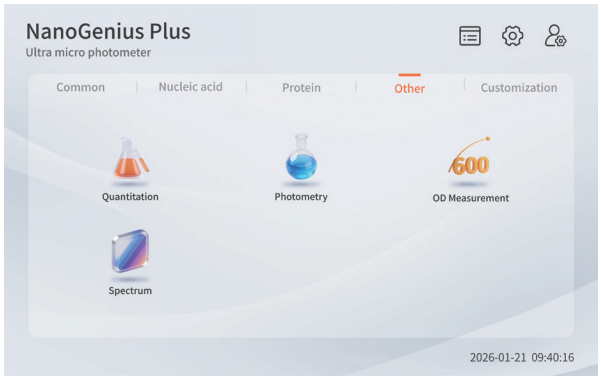
Accurately determine the optical density at 600nm in cuvette mode, specially designed for detecting the growth rate of various cells such as E. coli and yeast. Excellent linearity in the McFarland turbidity range of 0.5-5 MFU with stable and reliable data, supporting microbial culture research.

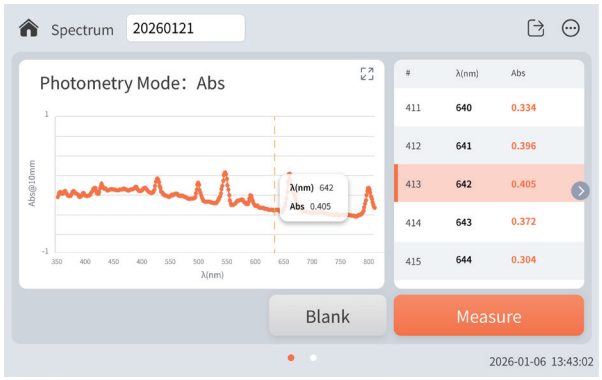


## Spectrum Scanning

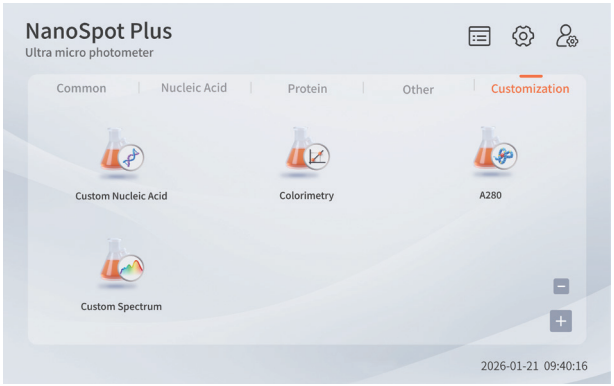
Covers the wavelength range of 190-1000nm with a wavelength accuracy of 1nm, and can quickly scan to generate absorbance/transmittance curves, accurately capturing the spectral characteristics of samples and providing strong support for method development and sample qualitative analysis.

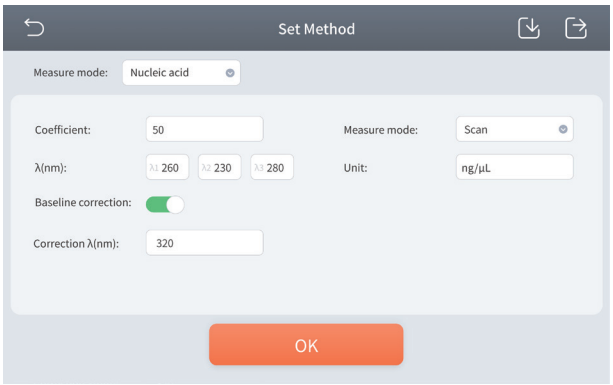



## Custom Methods

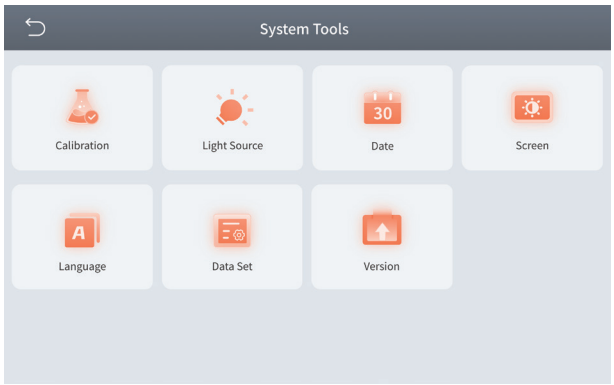
Supports customization of four major types of methods: nucleic acid, protein A280, quantitative analysis and spectrum scanning, and provides four measurement mode options: nucleic acid, protein A280, spectrum and protein colorimetry, with independent parameter configuration for each mode. Saved methods can be started with a single key without repeated setting, adapting to personalized experimental processes.

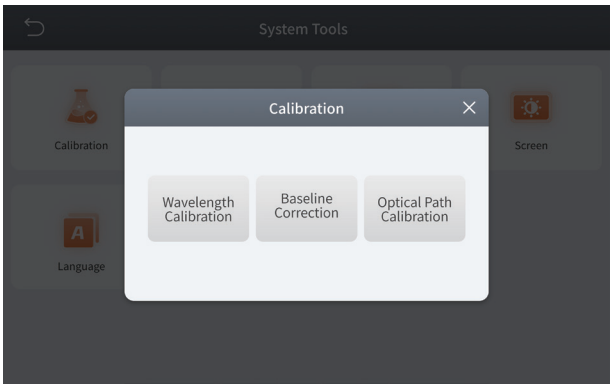



## System Settings

Built-in triple calibration system (wavelength calibration, system baseline calibration, optical path calibration) to ensure detection accuracy; it also supports full-dimensional settings such as light source life, date and time, screen display, language switching and data saving, balancing equipment operation and maintenance and personalized usage needs.



# Product Specifications

| Model | NanoSpot | NanoSpot Plus |
|---|---|---|
| Optical System | Double Beam | Double Beam |
| Light Source | Flash Xenon Lamp | Flash Xenon Lamp |
| Detector | Dual Silicon Photodiodes | Dual Silicon Photodiodes |
| Spectral Bandwidth | 3 nm | 3 nm |
| Wavelength | 190~1000 nm | 190~1000 nm |
| Wavelength Accuracy | ±1 nm | ±1 nm |
| Wavelength Repeatability | ≤0.2 nm | ≤0.2 nm |
| Absorbance Range | -3~60 A (Equivalent to 10 mm) | -3~200 A (Equivalent to 10 mm) |
| Absorbance Accuracy | ±1% @ 1 A @ 260 nm | ±1% @ 1 A @ 260 nm |
| Absorbance Repeatability | ≤0.003A @ 260 nm | ≤0.003A @ 260 nm |
| Sample Volume | 0.5~2 uL (Test Base), 3.5 mL (Cuvette) | 0.2~2 uL (Test Base),3.5 mL (Cuvette) |
| Measurement Range | 2~3000 ng/uL (dsDNA),0.06~90 mg/mL(BSA) | 2~10000 ng/uL (dsDNA),0.06~300 mg/mL (BSA) |
| Path Length | 0.5 mm (Test Base), 10 mm (Cuvette) | 0.1~0.5 mm Variable (Test Base),10 mm (Cuvette) |
| Sample Cell | 0.5 mm Micro-volume Test Base,10 mm Cuvette Holder | 0.1~0.5 mm Adjustable Micro-volume Test Base, 10 mm Cuvette Holder |
| System | Android | Android |
| Display | 8-inch LCD Touch Display (1280x800,Capacitive Touch) | 8-inch LCD Touch Display (1280x800. Capacitive Touch) |
| Interface | USB (Host)x2,USB (Device) x1 | USB (Host)x2,USB (Device) x1 |
| Power Requirement | Input: Ac 100~240V,Output: DC 24V,50W | Input: Ac 100~240V, Output: Dc 24V.50W |
| Dimensions | 210 (W)x 285 (D)x 210 (H) mm | 210 (W)x 285 (D)x 210 (H) mm |
| Weight | 5 kg | 5 kg |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