BioLAB

PRODUCT CATALOG

NANO SPECTROPHOTOMETER BGH1S4 (BSNA-104)

CE ISO9001 CERTIFIED

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NANO SPECTROPHOTOMETER BGH1S4

MICRO-SPECTROPHOTOMETER

User-Friendly Software, Easy to Use
Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.
Micro-Volumes Measuring
Only 0.5 μL-2 μL sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.
Long Life Light Source, Do Not Need to Warm Up
Xenon flash, life span is 10^9 (up to 10 years). No preheating, direct use, ready to test at any time.
High Concentration Detection
The maximum concentration of the detectable sample is 15000 ng/μL, and the sample basically does not need to be diluted.

SPECIFICATIONS

Model	BGH1S4
Old Model	BSNA-104
Wavelength range	200~800 nm
Minimum sample size	0.5~2.0 μL
Path length	0.05 / 0.2 mm 1.0 mm
Light source	Xenon flash lamp
Detector type	2048-linear CCD array
Wavelength accuracy	1 nm
Spectral resolution	≤ 3 nm
Absorbance precision	0.003 Abs
Absorbance accuracy	1 % (7.332 Abs at 260 nm)
Absorbance range	0.04~300 A
Nucleic acid detection range	2~15000 ng/μL (dsDNA)
Measurement time	< 6 s
Dimension (WxDxH) mm	208x320x186
Weight	3.6 kg
Sample pedestal material	Aluminum alloy and quartz fiber
Operating voltage	DC 24 V 2 A
Operating power	25 W
Standby power	5 W
Software compatibility	Android system
Cuvette Mode (OD600 Measurement)	
- Light source	LED
- Wavelength range	600±8 nm
- Absorbance range	0~4 A
Fluorometer Mode	
- Sensitivity	dsDNA: 0.5 pg/μL
- Linear dynamic range	R^2 ≥0.995
- Repeatability	≤1.5 %
Alt Name	Micro-Spectrophotometer

FEATURES

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Long Life Light Source, Do Not Need to Warm Up
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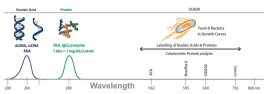
High Concentration Detection
The maximum concentration of the detectable sample is 15000 ng/μL, and the sample basically does not need to be diluted.
Convenient and Easy to Use
Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.
Fast Detection
No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.
Single Machine Operation, Convenient and Efficient

Increase the optical path by 0.05 mm to make the detection of nucleic acid concentration up to 15,000 ng/μL.
Fluorescence detection function is added to accurately determine the concentration of DNA samples below 5 ng/μL. In the detection of double-stranded DNA, the detection limit can be up to 0.5 pg/μL .
Automatic detection after putting down the arm.
The patented motor lifting structure makes the liquid column stretch more gentle, preventing the liquid column from breaking due to structural problems. In addition, the structure can effectively solve the instability of reading caused by high concentration samples, especially suitable for precise quantification of protein samples.
Android system, 7-inch capacitive touch screen, optimized APP software.
To detect the concentration of bacteria and microorganisms are more convenient with the OD600 function.
High resolution CCD array detector, 6s can complete the detection and display results.
Equipped with an HD touch screen, no need to connect to the computer.
Long life pulse xenon lamp light source, intelligent identification of user usage. The light source will auto off after 5 minutes without any operation to extend service life.
The detection data can be transferred to the computer through USB, which is convenient for data processing and analysis.
Easy-to-use data printing options, can print the report directly through the built-in printer.
Automatic detection and automatic blank function: automatically detect the sample concentration when the detection arm is lowered, which greatly shortens the detection time of large batches of samples.
Life Science Detection.

New Fluorescence Detection Function:
Fluorescence detection combined with fluorescence quantitative analysis kit, able to accurately quantify the concentration of DNA, RNA and protein through the specific binding of fluorochrome with target material, and the minimum limit is 0.5 pg/μL (dsDNA). Nano500 can be compatible with common fluorescence quantitative reagents to provide users with the maximum convenience and minimum detection cost.

APPLICATIONS



Different Fluorescence Channels:

UV Channel:

Excitation wavelength: 365±20 nm
Common reagent: Hoechst 33258, 4-MU, EnzChek Caspase
Nucleic acid quantification, plant GUS reporter gene detection, apoptosis detection

Blue Channel:
Excitation wavelength: 460±20 nm
Common reagent: PicoGreen, oligreen, RiboGreen, GFP, Protein, Fluorescein
dsDNA, ssDNA, GFP, gene detection, fluorescein detection, protein quantification.

Green Channel:
Excitation wavelength: 525±20 nm
Common reagent: Rhodamine, Cy3, RFP Vybrant Cytotoxicity
Rhodamine detection, Cy-3 fluorescence labeling detection, RFP gene detection, cytotoxicity detection.

Red Channel:
Excitation wavelength: 625±20 nm
Common reagent: Cy5, Quant-iT RNA
Cy-5 fluorescence labeling detection, RNA quantification

MORE INFO

Fluorescence Detection Mode (Can Be Customized)

Model	Nano500U (optional)	Nano500 (standard)	Nano500G (optional)	Nano500R (optional)
Channel	UV	Blue	Green	Red
Excitation wavelength	365±20 nm	460±20 nm	525±20 nm	625±20 nm
Emission wavelength	420-480 nm (60 nm)	525-570 nm (45 nm)	575-640 nm (65 nm)	670-725 nm (55 nm)

Fluorescence Detection Mode - Specification

Parameter	Specification
Light source	LED
Dynamic range	5 orders of magnitude
Linearity	R≥0.995
Detector	Photodiode
Repeatability	≤1.5 %
Stability	≤1.5 %
Sensitivity	dsDNA: 0.5 pg/μL
Measurement speed	3 s (once)

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