

Jenway®

Genova Bio®

The spectrophotometer dedicated to life science analysis

- Pre-programmed to quantify the concentration and purity of dsDNA, ssDNA, RNA and oligonucleotides
- Cuvette methods for measuring Bradford, Lowry, Biuret and Bicinchoninic Acid (BCA) protein assays
- Small footprint, easy to navigate touchscreen menu
- Diode array technology, very fast scanning



antylia.com

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+1.800.323.4340
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Canada: +1.800.363.5900
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Genova Bio Spectrophotometer – Measurement and Application Overview

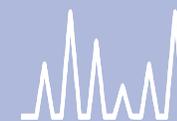
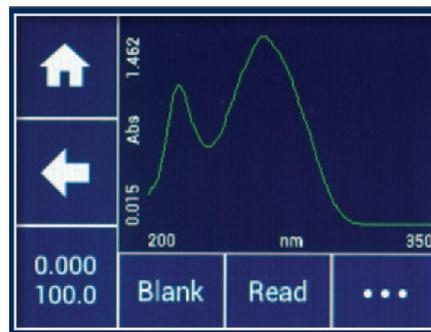
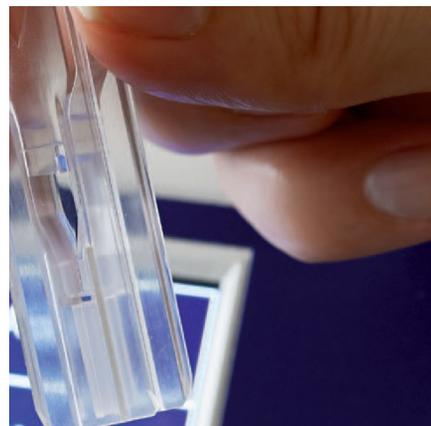
Measurement Modes

The nucleic acid measurement mode can be used to quantify the concentration and purity of dsDNA, ssDNA, RNA, and oligonucleotides using wavelengths recorded at 260, 280 and 230 nm, with an optional correction at 320 nm. The concentration is calculated along with the corresponding purity ratios 260/280 nm and 260/230 nm. At the touch of a button, it is easy to visually check the purity of the nucleic acids. This is done by identifying peak levels in the purity scan between 200 and 350 nm. This is especially useful for RNA samples where impurities may be present at 230 nm, but cannot be detected using the 260/280 nm ratio measurement.

The proteins measurement mode can be used to calculate protein concentration by creating standard curves from protein assay kits. With preprogrammed methods for measuring Bradford, Lowry, Biuret, and Bicinchoninic Acid (BCA) assays; up to 6 standards can be measured with 3 replicates of each standard to minimize any dilution errors. Each method has an optional background correction wavelength, depending on the assay being measured.

The proteins measurement mode is also preprogrammed with the direct UV and Warburg-Christian methods to determine purified protein concentrations. The Genova Bio has a preprogrammed method for measuring optical density of bacterial cultures such as *E. coli* and yeast cells. This is ideal to measure cell growth before cell harvesting.

As well as these preprogrammed life science methods, this versatile spectrophotometer has measurement modes for simple photometrics, concentration, quantitation, spectrum scanning, and kinetics. This enables measurements to be performed at any selected wavelength between 198 and 800 nm.



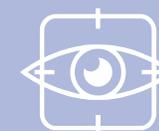
Multiple measurement
modes available



Color touchscreen
navigation



DNA, RNA and
protein analysis



Scanning diode
array technology

Genova Bio Spectrophotometer – DMV Bio Microcell Overview

Low Sample Volume Analysis

One of the most common applications of a UV/Visible spectrophotometer within Life Science is to measure the concentration of nucleic acids. Often there is very little sample available and the researcher may not wish to dilute it further in order to give sufficient volume for measurement in a standard cuvette.

When combined with the DMV Bio-cell the Genova Bio offers an elegant solution to direct, accurate measurement of nucleic acids or proteins in low volume biological samples.

Key Features

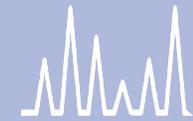
- Uses conventional sample position of the Genova Bio spectrophotometer – no special holder or positioning required
- High accuracy and reproducibility
- Magnetic closure design facilitates rapid filling and emptying and easy cleaning
- Validated measurements, cell comes complete with Certified Reference Materials to give truly validated measurements and the ultimate confidence in results

Technical Specification

Pathlength – 0.5mm
Pathlength Accuracy +/- 5 microns
Minimum Sample Volume – 2.5ul
DNA Detection Limit – 1.2ng/ul
DNA Maximum Concentration – 3,500ng/ul
DNA Reproducibility at 100ng/ul +/- 1ng/ul
DNA Reproducibility at 1000ng/ul +/- 4ng/ul
Protein Detection Limit – 0.06mg/ml



DMV Bio-cell



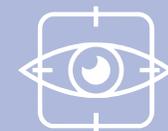
Multiple measurement
modes available



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Genova Bio Spectrophotometer

Order Information

Description – Instrument & Cell Adaptors	Part Code
7206 Genova Bio spectrophotometer, comes complete with micro cuvette holder (83056-06) supplied with instruction manual and universal power supply with UK, EU and US power leads	83056-04
10x10mm cuvette holder for macro and semi-micro cuvettes	83070-41
Micro-cuvette holder for cuvettes with 8.5mm beam height	83056-06
10x10mm heated cuvette holder for Kinetics	83056-77

Description – Combined Genova Bio Instrument and Microvolume Cuvette	Part Code
Genova Bio UV-Vis spectrophotometer, comes complete with micro cuvette holder (83056-06) supplied with instruction manual and universal power supply with UK, EU and US power leads. Combined with DMV BioCell microcell, 0.5mm path length, Z height 15mm and DNACON verification standard	69027-77

Description – Microvolume Cuvette	Part Code
DMV-BioCell, 0.5 mm path length, Z height 15mm. Includes DNACON verification standard.	69026-12

Description – Microvolume Cuvette	Part Code
Pack of 100 UV plastic cuvettes, 1.5 to 3.0ml fill volume	83070-34
Pack of 100 plastic cuvettes, UV and visible wavelengths, 70µl to 1.5ml fill volume (use with micro cuvette holder)	83070-38
Pack of 100 plastic cuvettes, UV and visible wavelengths, 2.5 to 4.5ml fill volume	83070-32

Instrument Specification

Wavelength Range : 198 to 800nm
Wavelength Accuracy : ± 2nm
Wavelength Repeatability : ± 2nm
Spectral bandwidth : 3nm
Transmittance : 0 to 199.9%
Absorbance : -0.300 to 2.500A
Photometric Accuracy : +/- 0.01A at 1.0A and 546nm
Stability : (A) +/- 0.005A/h at 0.04A and 546nm after 60 min warmup
Noise : +/- 0.002A at 0.04A and +/- 0.02A at 2.0A and 546nm

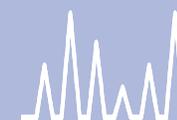
Beam Height : 15mm
Light Source : Xenon lamp
Removable Media USB (not supplied)
Outputs : USB x 2
Supply Voltage/Frequency : 100 – 240VAC at 50 to 60Hz
Power Supply : 12V DC, 3.8A
Size : (w x d x h) 212 x 422 x 120mm
Warranty : 2 years on instrument (includes Xenon lamp)

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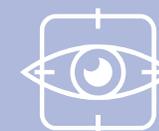
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