

Genova Plus

Life Sciences Spectrophotometer

The new Genova Plus is a UV/visible spectrophotometer dedicated to life science analysis. This spectrophotometer is based on the successful 73 series spectrophotometers therefore it has all of the same features including icon driven software and an improved navigation system for easy and intuitive usability.

The Genova Plus has pre-programmed methods for the measurement of nucleic acid concentrations and protein assays. This spectrophotometer also has measurement modes for the purity of nucleic acids and optical density for cell harvesting.

As well as the dedicated life science measurement modes this versatile instrument can also be used as a standard spectrophotometer with measurement modes for photometrics, concentration, multi-wavelength, spectrum scanning, quantitation and kinetics.

The Genova Plus is pre-programmed with methods for the measurement of ssDNA, dsDNA, RNA and oligonucleotide concentrations using wavelengths recorded at 260, 280 and 230nm, with an optional correction at 320nm. This measurement mode has the 260/280 and 260/230 ratios pre-programmed as well as a variable ratio option which enables up to 3 wavelengths to be entered as well as the correction wavelength. A dilution option is also available to calculate the original concentration of diluted samples.

For measuring protein concentrations the Genova Plus is pre-programmed with methods for Bradford, Lowry, Biuret, Bicinchoninic Acid (BCA) and Direct UV assays. This measurement mode allows up to 12 standards, with 3 replicates of each standard, to be measured to create the standard curve.

Bacterial cell cultures are routinely grown until the optical density at 600nm reaches approximately 0.4, which indicates the optimum cell number for harvesting. This measurement mode enables cell growth to be monitored by measuring absorbance. Measurements can be performed at 600nm, 595nm or any other user selected wavelength.

The Genova Plus also enables scanning across the full wavelength range from 198 to 1000nm enabling the purity of nucleic acids to be determined. The multi-wavelength measurement mode allows the sample to be measured at 4 different wavelengths, with ratio calculations and formulae with various factors to calculate concentration.

Key Features

- Pre-programmed methods for DNA/RNA analysis
- Purity scan across entire wavelength range
- Pre-programmed methods for protein analysis
- Standard spectrophotometer functions
- Press to read xenon lamp
- Icon driven software
- Small footprint
- Method and result saving to USB memory stick
- 3 year warranty including xenon lamp



Genova Plus

Part code: 736 501

Technical Specification

Wavelength

Range	198 to 1000nm
Resolution	1nm
Accuracy	±2nm
Repeatability	±0.5nm
Spectral Bandwidth	5nm

Photometrics

Absorbance Range	-0.300 to 2.500A
Transmittance Range	0 to 199.9%T
Photometric Accuracy	±1%T, ±0.01A at 1.000 Absorbance*

Concentration/Quantitation

Range	0 to 9999
Concentration Calibration	Blank with a single standard or factor
Quantitation Calibration	Blank with up to 12 standards
Quantitation Curve Fit	Quadratic, quadratic through zero, linear, linear through zero, interpolate

Multi-wavelength

Data Points	Up to 4 wavelengths
Calculations	Ratio, difference, sum, product

Kinetics

Measurement Time	2 to 9999 seconds
Display	Graphical & calculated concentration value
Analysis	Concentration, rate of change, initial and final absorbance or % transmittance

Spectrum/Purity Scan

Scan Data Interval	1, 2 or 5nm
Analysis	Absorbance or % transmittance and peaks and valleys

DNA

Measurement modes	dsDNA, ssDNA, RNA, Oligonucleotides, 260/280, 260/230, Variable Ratio
-------------------	---

Protein

Measurement modes	BCA, Bradford, Lowry, Biuret, Direct UV
-------------------	---

OD 600

Range	0.00 E-19 to 9.99 E+19
Calibration	Blank with a single standard or factor
Units	cells/ml
Factor	0.01 E-19 to 9.99E+19
Standard	0.01 E-19 to 9.99E+19

Other

Method Storage	312 (including pre-programmed methods)
Results Storage	Limited by USB memory stick
GLP Support	Real time clock & calendar, user ID
Light Source	Xenon lamp
Removable Media	USB (supplied)
Outputs	USB, Analogue, RS232, Integral printer
Size (w x d x h), mm	275 x 400 x 220
Weight, kg	6

* Assessment must be performed with a 10 x 10mm path length cuvette holder fitted

Ordering Information

Part Code	Description
736 501	Genova Plus UV/visible scanning spectrophotometer fitted with micro-cuvette holder, supplied with 10x10mm cuvette holder, pack 100 disposable micro-cuvettes, 4GB USB memory stick, instruction manual and universal power supply.