

Agilent BioTek Epoch Microplate Spectrophotometer

Product description



The Agilent BioTek Epoch microplate spectrophotometer is designed for a wide range of applications, from nucleic acid and protein quantification to cell-based assays and ELISAs.

Epoch bridges the gap between high-cost, high-performance, monochromator-based absorbance readers and the lower cost, lower-performing filter-based absorbance readers by providing excellent, full spectral UV/Vis measurements in a compact, efficient and robust design.

The high quality optical system Epoch incorporates a precision mono-chromator for wavelength selection without using interference filters. Microplate assays in 6- to 384-well plates are quickly and efficiently run via Agilent BioTek Gen6 data analysis software.

When sample volumes are critical, the optional Agilent BioTek Take3 microvolume plates allow up to sixteen or forty-eight 2 μ L samples to be measured quickly and easily in the Epoch.

For the budget-conscious laboratory focused on important nucleic acid and protein quantification as well as standard ELISA and other colorimetric assays, the Epoch offers unsurpassed versatility. To further automate the process, the Agilent BioTek BioStack microplate stacker can be integrated with an optional robot-compatible Epoch model.



Figure 1. Epoch R configuration is compatible with the Agilent BioTek BioStack microplate stacker.

Features

- Monochromator wavelength selection from 200 nm to 999 nm in 1 nm increments
- 6- to 384-well plate reading capability
- Automated pathlength correction for direct quantification without diluting samples
- Spectral scanning, end point, kinetic and well area scanning measurements
- Gen6 data analysis software included
- Integrated detector and electronics for low-noise measurements
- Xenon flash lamp to last the instrument's lifetime
- Robust housing design for longevity even under heavy usage
- Compatible with Take3 microvolume plates for low (2 μ L) volume, Agilent BioTek BioCell or cuvette measurements
- Optional BioStack and 3rd party automation-friendly Epoch is available

Typical applications

- Nucleic acid quantification
- Protein quantification
- 260/280 and 260/230 purity measurements
- ELISA
- Enzyme kinetics
- Cytotoxicity
- Cell proliferation
- Microvolume assays with Take3 plate

Configurations

- EPOCH: Microplate spectrophotometer
- EPOCHR: Microplate spectrophotometer, automation compatible

Optional accessories

- Take3 microvolume plates
- Gen5 Secure software for 21 CFR Part 11 compliance
- Product qualification package
- Agilent BioTek BioCell
- Absorbance test plate



Figure 2. The Agilent BioTek Epoch microplate spectrophotometer is compatible with Take3 microvolume plates.

Technical details

General	
Detection Modes	Absorbance
Read Methods	End point, kinetic, spectral scanning, well area scanning
Microplate Types	6- to 384-well microplates
Other Labware	Take3 microvolume plate
Software	Gen6 data analysis software
Automation	Compatible with BioStack and 3 rd party automation (EPOCHR configuration)
Absorbance	
Wavelength Range	200 nm to 999 nm, selectable in 1 nm increments
Bandpass	5 nm
Dynamic Range	0 – 4.0 OD
Resolution	0.0001
Monochromator Wavelength Accuracy	± 2 nm
OD Accuracy	0.0 to 2.0 OD: ± 1% ± 0.010 OD 2.0 to 2.5 OD: ± 3% ± 0.010 OD
OD Linearity	0.0 to 2.0 OD: ± 1% ± 0.010 OD 2.0 to 2.5 OD: ± 3% ± 0.010 OD
OD Repeatability	0.0 to 2.0 OD: ± 1% ± 0.005 OD 2.0 to 2.5 OD: ± 3% ± 0.005 OD
Reading Speed	96 wells: 15 seconds 384 wells: 31 seconds
Physical characteristics	
Power	100 – 240 Volts AC. 50/60 Hz
Weight	< 15 lbs (6.8 kg)
Dimensions	12.5" D x 12" W x 7.7" H (31.8 cm x 30.5 cm x 19.6 cm)

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