

# Epoch™ Microplate Spectrophotometer

BioTek's 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.

Epoch's high quality optical system incorporates a precision monochromator for wavelength selection without using interference filters. Microplate assays in 6- to 384-well plates are quickly and efficiently run via Gen5 Software.

When sample volumes are critical, the optional Take3 Micro-Volume Plates allow up to sixteen or forty-eight 2  $\mu$ 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 Microplate Spectrophotometer offers unsurpassed versatility. To further automate your process, BioStack can be integrated to an optional robot compatible Epoch model.



## 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
- Gen5 Microplate Reader and Imager 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 Micro-Volume Plates for low (2  $\mu$ L) volume, BioCell or cuvette measurements
- Optional BioStack and 3rd party automation friendly Epoch is available



Epoch is compatible with Take3 Micro-Volume Plates.

## Typical Applications:

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

## Configurations:

EPOCH: Microplate Spectrophotometer

EPOCHR: Microplate Spectrophotometer, automation compatible

## Optional Accessories:

- Take3 Micro-Volume Plates
- Gen5 Secure for 21 CFR Part 11 compliance
- Product Qualification Package
- Patented BioCell
- Absorbance Test Plate



Epoch R configuration is compatible with BioStack Microplate Stacker.

## Technical Details:

### General

Detection method:	Absorbance
Read method:	End point, kinetic, spectral scan, well area scan
Microplate types:	6 to 384 wells
Other labware:	Take3 Micro-Volume Plate
Software:	Gen5 Software
Automation:	Compatible with BioStack and 3rd party automation (EPOCHR configuration)

### Absorbance

Wavelength range:	200 nm – 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
Dimensions:	12" W x 12.5" D x 7.7" H (30.5 cm x 31.8 cm x 19.6 cm)
Weight:	<15 lbs (6.8 kg)



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