

Epoch™ Micro-Volume Spectrophotometer System

BioTek's Epoch™ Micro-Volume Spectrophotometer System is designed for a wide range of applications, from nucleic acid and protein quantification on a micro scale to cell-based assays in microplates, BioCells or standard cuvettes.

The Epoch Microplate Reader bridges the gap between high performance, monochromator-based absorbance readers and the lower cost, lower performing filter-based absorbance readers by providing excellent UV/Vis measurements in a compact, efficient and robust design. Add the Take3™ Micro-Volume Plate to the equation and the result is multi-volume system, capable of performing all the assays common to the biomolecular research laboratory.

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 Take3 Micro-Volume Plates allow up to forty-eight 2 μ L samples to be measured quickly and easily.

For the budget conscious laboratory focused on important nucleic acid and protein quantification as well as standard ELISA and other colorimetric assays, the Epoch Micro-Volume Spectrophotometer System offers unsurpassed versatility.



Features:

- Take3™ or Take3 Trio Micro-Volume Plates for low (2 μ L) volume, BioCell™ or cuvette measurements
- 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
- Spectral scanning, endpoint, kinetic, and well area scanning measurements
- Gen5™ Data Analysis Software included
- Integrated detector and electronics for low-noise measurements
- Xenon flash lamp lasts the instrument's lifetime
- Robust housing design for longevity even under heavy usage



Take3™ and Take3 Trio plates for micro-volume measurements.

Applications:

- Low-volume nucleic acid and protein quantification in Take3 plate
- Nucleic acid and protein direct quantification in microplates
- Endpoint or kinetic ELISA
- Spectral scanning
- Cell-based assays

Models:

Epoch Micro-Volume Spectrophotometer
 System includes:
 EPOCH: Microplate Spectrophotometer
 TAKE3: Micro-Volume Plate
 or
 TAKE3TRIO: Micro-Volume Plate



Optional Accessories:

- Gen5™ Secure for 21 CFR Part 11 compliance
- Product Qualification Package
- Patented BioCell™
- Absorbance Test Plate

Specifications:

Epoch™ Microplate Spectrophotometer

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™ Data Analysis Software
Automation:	Compatible with BioStack and 3rd party automation (EPOCHR model)

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)	

Regulatory

For In Vitro Diagnostic use. All BioTek microplate instrumentation is CE and TUV marked.

Take3™ Micro-Volume Plates

	Take3	Take3 Trio
2 µL sample capacity:	16	48
BioCell capacity:	2	2
Cuvette capacity:	1	
Detection limit:	2 ng/µL dsDNA (spectrophotometric)	2 ng/µL dsDNA (spectrophotometric)
Detection pathlength:	0.5 mm nominal	0.5 mm nominal
Detection modes:	Absorbance and Fluorescence	Absorbance and Fluorescence

Compatible readers: Epoch, Eon, Synergy (equipped with absorbance and/or fluorescence detection), PoverWave XS2

Gen5 interface: Take3 and Take3 Trio available in Gen5 v 2.0 with pre-programmed protocols for nucleic acid and protein quantification. Take3 can also be used with the standard Gen5 interface for other assays, using the microspots, BioCell or cuvette locations.

Use and care: Take3 plates are easily cleaned by simply wiping the slides with laboratory wipes.

*Specification subject to change



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