Data Sheet

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Agilent BioTek Epoch 2 Microplate Spectrophotometer

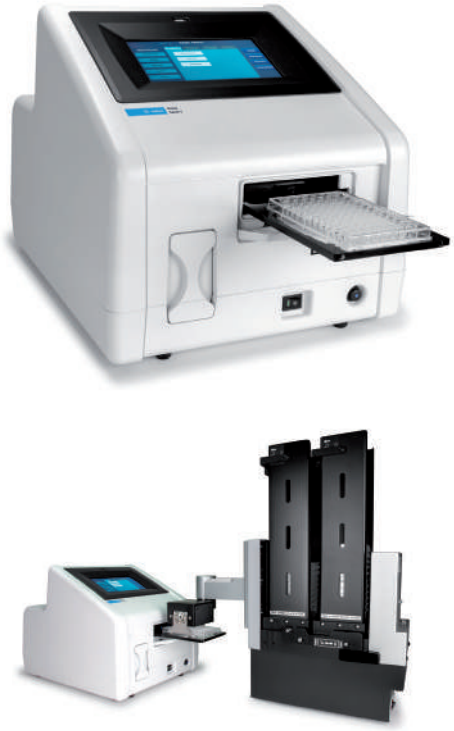

Figure 1. Agilent BioTek Epoch 2 with Agilent BioTek microplate stacker.

Figure 2. Use the Agilent BioTek Take3 microvolume plate with the Agilent BioTek Epoch 2 microplate spectrophotometer for direct nucleic acid and protein quantification in multiple 2 µL samples.

Product description

The Agilent BioTek Epoch 2 microplate spectrophotometer offers excellent performance for UV-Vis measurements in 6- to 384-well microplates, cuvettes and in microvolume samples with the available Agilent BioTek Take3 microvolume plate. The optional touchscreen interface makes it easy to choose from predefined protocols or to define custom programs. End point, kinetic, spectral scanning and well area scanning modes, plus incubation and shaking enable wide-ranging applications.

Features

- Filter-free UV-Vis wavelength selection from 200 to 999 nm for an extensive range of applications, from nucleic acid and protein quantification to ELISA and microbial growth assays
- End point, kinetic and spectral scanning modes enable a variety of workflows
- Compatible with 6- to 384-well plates and cuvettes for assay versatility
- Microvolume (2 µL) measurements with the Take3 microvolume plate allow dilution-free nucleic acid quantification
- 4-Zone incubation to 65 °C and Condensation Control facilitate temperature-sensitive assays
- Available touchscreen interface with convenient predefined common protocols enables standalone use; no computer required
- Advanced shaking profiles including linear, orbital and double orbital enable gentle or vigorous mixing
- Optional cuvette port for easy 1 cm measurements
- Compatible with Agilent BenchCel microplate handler, Agilent BioTek BioSpa 8 automated incubator, and Agilent BioTek BioStack microplate stacker for workflow automation

Typical applications

- Nucleic acid and protein direct quantification
- Microvolume assays with Take3 plates
- Microbial growth assays
- Cytotoxicity assay
- Cell proliferation assay
- End point or kinetic ELISA
- Spectral scanning

Configurations

All Epoch 2 configurations come with Agilent BioTek Gen6 data analysis software.

- EPOCH2NS: 200 to 999 nm, incubation to 65 °C, linear, orbital and double-orbital shaking
- EPOCH2NSC: 200 to 999 nm, incubation to 65 °C, linear, orbital and double-orbital shaking, plus cuvette port
- EPOCH2TS: 200 to 999 nm, incubation to 65 °C, linear, orbital and double-orbital shaking, touchscreen and onboard software
- EPOCH2TSC: 200 to 999 nm, incubation to 65 °C, linear, orbital and double-orbital shaking, plus cuvette port, touchscreen and onboard software

Optional accessories

- Take3 microvolume plates
- Gen5 Secure software for 21 CFR Part 11 compliance
- Product qualification package
- Absorbance test plate
- BioStack microplate stacker
- BioSpa 8 automated incubator
- Agilent BenchCel microplate handler

Figure 3. Agilent BioTek Epoch 2 microplate spectrophotometer with optional cuvette port.

Technical details

General	
Detection Modes	Absorbance
Read Methods	End point, kinetic, spectral scanning (onboard software) End point, kinetic, area scanning, absorbance spectral scanning (under Gen6 control)
Microplate Types	6- to 384-well microplates
Other Labware Supported	Take3 microvolume plates Standard cuvettes
Temperature Control	to 65 °C
Shaking	Linear, orbital, double orbital
Software	Gen6 software included Onboard software (touchscreen configurations)
Automation	BioStack microplate stacker and 3rd party automation compatible BioSpa 8 automated incubator compatible Agilent BenchCel microplate handler compatible
Absorbance	
Light Source	Xenon flash lamp
Detector	Photodiode
Wavelength Selection	Monochromator
Wavelength Range	200 – 999 nm, in 1 nm increments
Monochromator	
Bandwidth	2.9 nm
Wavelength Accuracy	± 2 nm
Wavelength Precision	± 2 nm (standard deviation)
Dynamic Range	0 to 4.0 OD
Resolution	0.001 OD (onboard software) 0.0001 OD (under Gen6 control)
Pathlength Correction	Yes (under Gen6 control)
Optical density	
Accuracy	< 1% at 2.0 OD < 3% at 2.5 OD
Linearity	< 1% from 0 to 2.5 OD
Repeatability	< 0.5% at 2.0 OD
Stray Light	0.03% at 230 nm
Reading Speed (Kinetic*)	96 wells: 8 seconds 384 wells: 14 seconds (*under Gen6 control)
Physical characteristics	
Power	External 24 V DC power supply compatible with 100-240 volts AC at 50-60Hz. 60 W maximum consumption.
Weight	25 lbs (11.34 kg)
Dimensions	Touchscreen models: 15.5" D x 12.75" W x 12.5" H (39.4 x 32.4 x 31.8 cm) Non-touchscreen models (approximate): 15.5" D x 12.75" W x 8.5" H (39.4 x 32.4 x 21.6 cm)
Connectivity	(1) USB 2.0 ports for computer control (2) USB 2.0 ports for printer connection and USB thumb drive (touchscreen configurations only)

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