

Agilent BioTek Synergy HTX Multimode Reader

Technical details

General	
Detection Modes	UV-Vis absorbance Fluorescence intensity Luminescence Time-resolved fluorescence (secondary mode) Alpha
Read Methods	End point, kinetic, spectral scanning, and well-area scanning
Microplate Types	6- to 384-well plates
Other Labware Supported	PCR plates, Petri and cell culture dishes Agilent BioTek Take3 microvolume plates
Temperature Control	4-Zone Incubation to 50 °C with Condensation Control ± 0.2 °C at 37 °C
Shaking	Linear, orbital
Software	Agilent BioTek Gen6 data analysis software Agilent BioTek Gen5 Secure software enables 21 CFR Part 11 compliance (option)
Automation	Agilent BioTek BioStack microplate stacker and third-party automation compatible
Absorbance	
Light Source	Xenon flash
Detector	Photodiode
Wavelength Selection	Monochromator
Wavelength Range	200–999 nm, 1 nm increments
Monochromator Bandwidth	2.4 nm
Dynamic Range	0–4.0 OD
Resolution	0.0001 OD
Path Length Correction	Yes
Monochromator Wavelength Accuracy	± 0.2 nm
OD Accuracy	< 1% at 2.0 OD < 3% at 3.0 OD
OD Linearity	< 1% from 0 to 3.0 OD
OD Repeatability	< 5% at 2.0 OD
Stray Light	0.03% at 230 nm
Reading Speed (Kinetic)	96 wells: 14 s 384 wells: 26 s

Fluorescence Intensity	
Light Source	Tungsten halogen Xenon flash (option)
Detector	PMT
Wavelength Selection	Filters
Wavelength Range	300–700 nm (200–850 nm option)
Dynamic Range	> 6 decades
Sensitivity	Top and bottom: fluorescein 5 pM (1 fmol/well, 96-well plate)
Reading Speed (Kinetic)	96 wells: 31 s 384 wells: 80 s
Luminescence	
Wavelength Range	300–700 nm
Dynamic Range	> 6 decades
Sensitivity	10 amol ATP (flash)—luminescence and absorbance/luminescence configurations 30 amol ATP (flash)—multimode configurations
Time-Resolved Fluorescence	
Light Source	Xenon flash
Detector	PMT
Wavelength Selection	Monochromator
Alpha Detection	
Light Source	Tungsten halogen
Detector	PMT
Wavelength Selection	Filters
Sensitivity	300 amol of biotinylated-LCK-P peptide, 25 µL/well in 384-well plate
Read Speed	2 min (96-well plate)
Reagent Dispensers	
Supported Detection Modes	All modes
Number	2 syringe pumps
Supported Labware	6- to 384-well microplates
Dead Volume	1.1 mL, with backflush
Dispense Volume	5–1,000 µL in 1 µL increments
Dispense Accuracy	± 1 µL or 2%
Dispense Precision	< 2% at 50–200 µL
Physical Characteristics	
Connectivity	1 USB, 1 RS232 for external PC control
Power	100–240 VAC, 50–60 Hz
Dimensions	16" W x 15" D x 10" H (40.6 x 38.0 x 25.4 cm)
Weight	40 lb (18 kg)

Configurations

Part Number	S1L	S1A	S1LA	S1LF	S1LFA	S1LFTA
Absorbance		•	•		•	•
Fluorescence				•	•	•
Luminescence	•		•	•	•	•
Alpha				•	•	•
Incubation	•	•	•	•	•	•
Shaking	•	•	•	•	•	•
Dual-Reagent Injector*	•	•	•	•	•	•
Time-Resolved Fluorescence (TRF) (Secondary Mode)						•
Gen6 Data Analysis Software	•	•	•	•	•	•

*The Agilent BioTek dual-reagent injector module is optional, must be purchased separately.

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