

Agilent BioTek Multimode Microplate Readers

Detection solutions for a wide range of applications



Agilent BioTek Multimode Microplate Readers



Efficiently handle a wide range of applications

Life science laboratories around the globe have their own unique requirements for instrumentation.

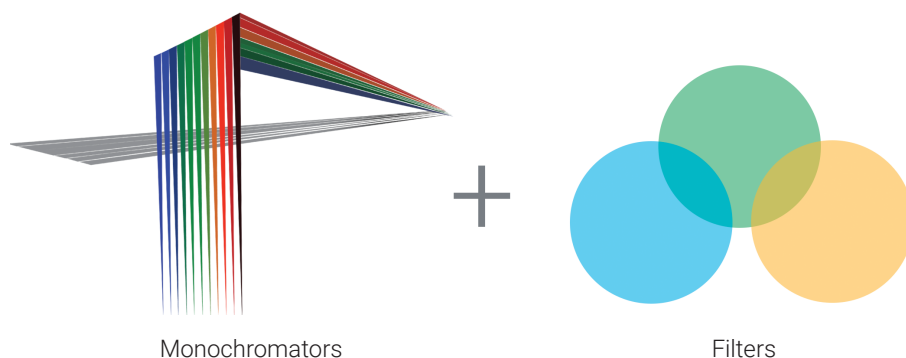
Agilent BioTek high-quality instruments offer excellent sensitivity, fast speeds, low maintenance costs, and simple yet amazingly powerful software. Our broad range of configurable, upgradable multimode microplate readers are able to meet the diverse detection needs of a wide range of applications. To support these applications, Agilent has a library of technical resources that can be viewed on our website, including application notes, briefs, and compendia, and visual abstracts, white papers, and presentations. In addition, our expert scientific staff, field application scientists, and highly skilled technical assistance center engineers are available to help facilitate your important, time-sensitive research.

Multimode and hybrid multimode readers have multiple applications

Applications		
High-throughput screening	Biomarker quantification	TR-FRET
Drug absorption and metabolism	Genetic analysis	HTRF
Drug discovery and development	Environmental testing	Cytokines
Small-molecule inhibitors	Food safety	Fluorescence polarization
Cell proliferation	Nucleic acid quantification	AlphaPlex
Cytotoxicity	Rapid kinetics	AlphaScreen
Drug targeting	FRET	SNP

"The combination of luminescence, fluorescence, and imaging covers a wide variety of assays from one instrument. It is robust and can accommodate numerous fluorescent wavelengths using LED cubes, it has a wide range of objectives, and the software is easy to use."

– **Laura McMullan**,
CDC

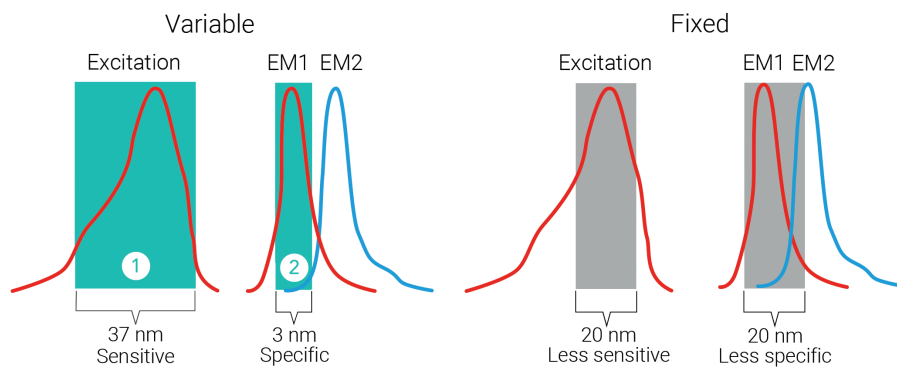


Hybrid plate reader—flexibility and performance

Several Agilent BioTek multimode readers feature the proprietary Hybrid Technology, which combines monochromator and filter optics for advanced performance and flexibility for any assay.

Monochromator: Variable bandwidth, absorbance, fluorescence, and luminescence.

Filters: Fluorescence polarization, time-resolved fluorescence, Alpha, and filtered luminescence.



Variable bandwidth for sensitivity and specificity

Agilent BioTek Synergy Neo2 hybrid multimode reader, Synergy H1 multimode reader, Cytation C10 confocal imaging reader, and Cytation 5/7 cell imaging multimode readers all have variable bandwidth monochromators. Large-bandwidth settings **(1)** provide increased sensitivity and lower limits of detection. Small bandwidths **(2)** provide increased specificity when multiple signals are present, reducing crosstalk and enhancing assay performance.

Key technologies



Microvolume analysis with the Take3 microvolume plate

The Cytation or Synergy readers become microvolume analysis systems with the Agilent BioTek Take3 microvolume plate. Measure 16 or 48 samples in one run, saving time compared to using single-sample devices. The available Agilent BioTek Take3 app is preprogrammed for ssDNA, dsDNA, RNA, and protein quantification in 2 μ L samples.



Powerful Gen6 software

Agilent BioTek Synergy multimode readers are controlled by Gen6 data analysis software. Gen6 enables efficient setup, plate reading, and analysis for both new and experienced users.

Multimode readers

Agilent BioTek multimode microplate readers offer flexibility and ease of use over a broad range of applications. Configurability is an important aspect of our multimode readers to provide the most value for laboratory budgets—but the independent optical systems in our multimode readers do not compromise on performance. Agilent BioTek Synergy HTX and LX multimode readers offer features and outstanding specifications for great performance and economy.



Synergy HTX multimode reader

The Agilent BioTek Synergy HTX multimode reader is a compact, affordable system for 6- to 384-well microplates and Take3 microvolume plates. Its unique dual-optics design provides superior performance for UV-Vis absorbance, fluorescence, luminescence, and AlphaScreen/AlphaLISA workflows.

Features include:

- Great flexibility at a low price
- Monochromator-based UV-Vis absorbance and filter-based fluorescence
- Linear and orbital shaking to optimize many applications
- Excellent performance with AlphaScreen and AlphaLISA
- Dual-reagent injectors, ideal for inject/read assays
- Microvolume nucleic acid and protein quantification with the Take3 microvolume plate

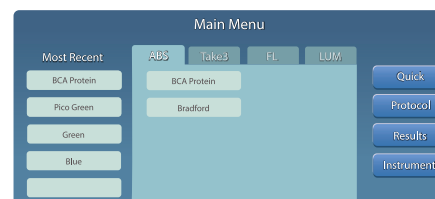


Synergy LX multimode reader

The Agilent BioTek Synergy LX multimode reader economically automates many common microplate assays. Its large touch screen user interface and onboard software simplify programming and operation, and the high-quality optics ensure excellent data in absorbance, fluorescence, and luminescence detection modes. Applications include nucleic acid and protein quantification, ELISA, BCA, and Bradford, and cell viability assays.

Features include:

- Affordable multimode reader
- Microvolume quantification with Take3 microvolume plates
- Continuous UV-Vis wavelength selection from 200 to 999 nm
- High-performance, high-blocking filters for fluorescence and luminescence
- Touch screen with easy operation and immediate data display
- Output to USB flash drive, printer, or Gen6 software



Color touch screen for quick programming and operation, and immediate data display.

Instrument comparison



	Synergy Neo2	Cytation 1/5/7	Synergy H1	Synergy HTX	Synergy LX
General					
Microplate Types	6 to 1536	6 to 384 (monochromator) 6 to 1536 (filters and imaging)	6 to 384	6 to 384	6 to 384 (onboard, absorbance) 96 and 384 (onboard, FL and LUM) 6 to 384 (via Gen6, all modes)
Gas Controller Compatible	•	•	•		
BioSpa 8 Compatible	•	•	•		
BioStack Compatible/Automation-Ready	•	•	•	•	
BenchCel Compatible	•	• (Cytation 5 validated only)	•		
Dual-Reagent Injector Compatible	•	•	•	•	
Take3 Compatible	•	•	•	•	•
Temperature Control	To 70 °C	To 45 °C (Cytation 7/1) To 65 °C (Cytation 5)	To 70 °C ("M2" configurations)	To 50 °C	
Peltier Cooling Module Option		•			
Condensation Control	•	•	•	•	
Key Features and Application Areas					
Monochromator-Based UV-Visible Absorbance	•	•	•	•	•
Monochromator-Based Fluorescence	•	•	•		
Variable-Bandwidth Fluorescence Monochromator	•	Cytation 7 Cytation 5	•		
Filter-Based Fluorescence	•	Cytation 5 Cytation 1	•	•	•
Luminescence	•	•	•	•	•
Filtered Luminescence	•	Cytation 5 Cytation 1	•	•	•
TRF and TR-FRET	•	Cytation 5 Cytation 1	•	(Secondary mode)	
TRF Laser	•				
Fluorescence Polarization	•	Cytation 5 Cytation 1	•		
AlphaLISA/AlphaScreen	100 mw 680 nm laser	100 mw 680 nm laser (Cytation 5)		•	
Proprietary Hybrid Technology	•	Cytation 5	•		
Dual-PMT Read Head	•				
Upgradable to Imaging		•			

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