

Biotek Clarity Microplate Luminometer



●Overview

Clarity™ is Bio-Tek's new ultra-high performance microplate luminometer. Clarity has been designed to provide the very best in luminescence technology. Ultra-fast photon counting and high-quality optics ensure the best sensitivity available today. Use of standard disposable tips for injection, contamination-free stainless steel work surface and a dead volume below 500 µl are just a few examples of Clarity's superior design. Reader control and data analysis are automatically performed by Bio-Tek's KC4™ advanced software. Full 21 CFR Part 11 compliance is available if required. Typical applications include gene expression assays (luciferase, Dual-Luciferase®), ATP assays (e.g. cell proliferation, cytotoxicity), DNA assays, aequorin calcium ion assays, reactive oxygen species (ROS) assays, luminescence-based ELISA and much more.



Dual-Luciferase is a trademark of Promega Corporation and is registered with the U.S. Patent and Trademark office.

●Features

- Ultra-Fast Photon Counting: Provides ultimate sensitivity and unsurpassed signal-to-noise ratio to accommodate the most demanding applications of luminescence.
- KC4™ Available: No need to use Excel™ for data analysis as with many other luminescence readers. Powerful data analysis is automatically performed at the end of the run. Saves time, prevents mistakes. 21 CFR Part 11 compliance is available with KC4™ Signature.
- Disposable tips: Economical and extremely easy to maintain. Saves time. Guarantees good performance and accurate results.
- Injection system located near PMT gives <500 µl dead volume. Saves expensive reagents.
- Stainless steel work surface: Contaminations easily spotted. Trouble-free maintenance, easy to keep contamination free. Keeps the working environment clean for best performance with highly sensitive assays.
- Clarity™ has been certified by Promega to be compatible with their industry-leading Dual-Luciferase® Gene Reporter Kit.



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●Models

Model	Clarity™		
	CLARITY	CLARITY2	CLARITYHTI2
96-well	●	●	●
384-well			●
Incubation			●
Shaking	●	●	●
Injectors		2	2
Software	Clarity	Clarity	Clarity

Custom configurations available (number of injectors, temperature control, 384-well plate compatibility). Please contact [Customer Care](#) for information on additional models.

● Part Numbers

CLARITY

Ultra-sensitive microplate luminometer for glow applications in 96-well plates.

CLARITY2

Ultra-sensitive microplate luminometer for glow and flash applications in 96-well plates. Equipped with two reagent injectors.

CLARITYHTI2

Ultra-sensitive microplate luminometer for glow and flash applications in 96- and 384-well plates. Equipped with two reagent injectors and temperature control to 50°C.

●Accessories Included

- User's manual
- Serial and USB cables
- Clarity™ PC software

●Optional Accessories

- Acrylic cover - protects the work surface and prevents reagent photo-bleaching in bright environments.
- [KC4™ or KC4™ Signature](#), Data Analysis Software.

● Specifications

Detection method	Glow and flash luminescence (photon counting photomultiplier tube). Flash luminescence requires injectors (Clarity2, ClarityHT12)
Read method	Endpoint, dual read, kinetic, flash-kinetic. Full plate or random pattern.
Microplate types	96-, 384-well microplates (384-well plate on Clarity HT12)
Wavelength range	300-600 nm
Dynamic range	>6 decades
Sensitivity	10 amol ATP
Temperature control	Ambient +5°C to +50°C (ClarityHT12)
Shaking	Linear, Orbital, Cross-Shaking
Reagent dispensers	Up to 4
Dispense volume	10-150 µl in 1 µl increments
Dead volume	<500 µl
PC Software	Clarity PC software. Control through USB or serial port.
Power	100-240 V _{AC} 50/60 Hz
Dimensions	15.1"W x 16.9"D x 10.0"H (38.4 x 43.0 x 25.5 cm)
Weight	49 lbs (22 kg)
Regulatory	For in vitro diagnostic use (Except in the European Union). All Bio-Tek microplate instrumentation is CE and ETL marked. For details on approvals and standards compliance, please contact Bio-Tek.
Automation	Robot compatible

Specifications subject to change.