



Dedicated luminescence microplate reader

The LUMIstar Omega is BMG LABTECH's powerful dedicated luminescence microplate reader, providing highly sensitive flash and glow assay readings. This DLReady-certified microplate reader can also come equipped with Simultaneous Dual Emission for BRET applications, and can be further upgraded to a multi-mode reader.

Features

- High performance microplate reader for luminescence
- Measurement at up to eight distinctive wavelengths
- Top and bottom reading
- BRET, optional with Simultaneous Dual Emission detection
- Up to two reagent injectors
- Upgradeable to FLUOstar Omega or POLARstar Omega including multiple detection modes and UV/Vis spectrometer
- Powerful MARS Data Analysis Software

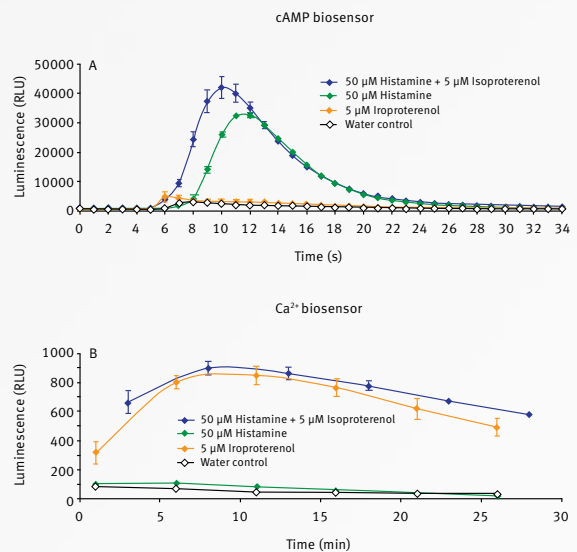


Fig. 1: Multiplexing luminescent measurements of human mesenchymal stem cells (hMSC) transiently transfected with a live-cell cAMP biosensor (A) or Ca²⁺ biosensor Clonetics™ (B) from Lonza. The effect of drug additions on two signaling pathways in just one well is performed on the LUMIstar Omega microplate reader.

LUMIstar® Omega - Technical Specifications

Due to the modularity of the LUMIstar Omega, all or combinations of the features below can be installed at purchase or upgraded at any time. Please contact your local representative for more details or a quote.

Detection Modes	Luminescence (flash and glow) - including BRET
Measurement Modes	Top and bottom reading Endpoint and Kinetic measurements Sequential Multi Emission measurements Simultaneous Dual Emission measurements Ratiometric measurements
Microplate Formats	6 to 384-well plates, user-definable
Detectors	Side window, current type photomultiplier tube
Optical Filters	One emission filter wheel for 8 filters
Spectral Range	240 - 740 nm
Sensitivity	20 amol/well ATP DLR certified
Read Times	Flying mode: 20 s (96), 55 s (384)
Reagent Injections	Up to 2 built-in reagent injectors Injection at measurement position (6 to 384-well) Individual injection volumes for each well (3 to 500 µL) Variable injection speed up to 420 µL / s Up to four injection events per well Reagent back flushing
Shaking	Linear, orbital, and double-orbital with user-definable time and speed
Gas Vent	System to inject an atmosphere or to pull a vacuum into the reader
Incubation	+5°C above ambient up to 45°C or 60°C
Software	Multi-user software package including Reader Control and MARS Data Analysis Software
Dimensions	Width: 44 cm, depth: 48 cm, height: 30 cm; weight: 28 kg
Accessories	
Stacker	Magazines for up to 50 plates - continuous loading feature
THERMOstar	Microplate Incubator and Shaker
Filters	Optimized for dyes, fluorophores and specific assays Filters for all applications from UV to NIR Customized filters available upon request
Upgrades	Upgrades to include options such as additional detection modes, reagent injectors, extended temperature control, etc. are available. Please contact your local representative for more information.

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