



## Dedicated Luminescence Microplate Reader

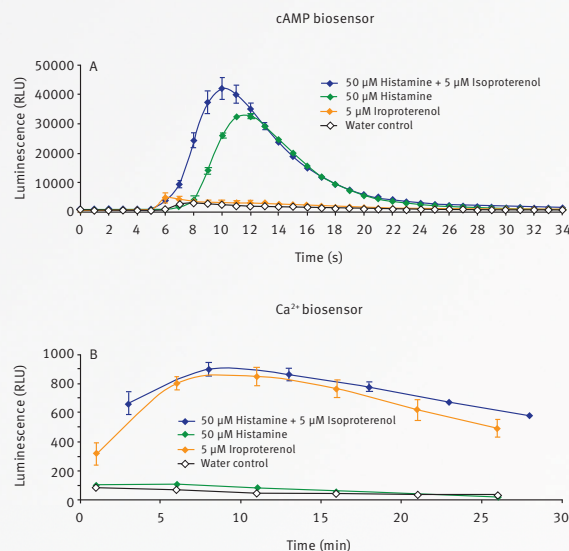
The LUMIstar Omega is BMG LABTECH's powerful dedicated luminescence microplate reader, providing highly sensitive flash and glow assay readings. This DLReady-certified microplate reader can also come equipped with Simultaneous Dual Emission for BRET applications, and can be further upgraded to a multi-mode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



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**Fig. 1:** Multiplexing luminescent measurements of human mesenchymal stem cells (hMSC) transiently transfected with a live-cell cAMP biosensor [A] or Ca<sup>2+</sup> 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.

**BMG LABTECH**  
The Microplate Reader Company

# 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.

<b>Detection Modes</b>	Luminescence (flash and glow) - including BRET
<b>Measurement Modes</b>	Top and bottom reading Endpoint and Kinetic measurements Sequential Multi Emission measurements Simultaneous Dual Emission measurements Ratiometric measurements
<b>Microplate Formats</b>	6 to 384-well plates, user-definable
<b>Detectors</b>	Side window, current type photomultiplier tube
<b>Optical Filters</b>	One emission filter wheel for 8 filters
<b>Spectral Range</b>	240 - 740 nm
<b>Sensitivity</b>	20 amol/well ATP DLR certified
<b>Read Times</b>	Flying mode: 20 s (96), 55 s (384)
<b>Reagent Injections</b>	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
<b>Shaking</b>	Linear, orbital, and double-orbital with user-definable time and speed
<b>Gas Vent</b>	System to inject an atmosphere or to pull a vacuum into the reader
<b>Incubation</b>	+5°C above ambient up to 45°C or 60°C
<b>Software</b>	Multi-user software package including Reader Control and MARS Data Analysis Software
<b>Dimensions</b>	Width: 44 cm, depth: 48 cm, height: 30 cm; weight: 28 kg
<b>Accessories</b>	
<b>Atmospheric Control Unit (ACU)</b>	Oxygen Regulation: 1 - 19% using nitrogen to purge. Carbon Dioxide Regulation: 0 - 20% using 100% moisture free carbon dioxide to purge. Dimensions (ACU only): Width: 44 cm, height: 17 cm and depth: 19 cm. Weight: 5 kg
<b>Stacker</b>	Magazines for up to 50 plates - continuous loading feature
<b>THERMOstar</b>	Microplate Incubator and Shaker
<b>Filters</b>	Optimized for dyes, fluorophores and specific assays Filters for all applications from UV to NIR Customized filters available upon request
<b>Upgrades</b>	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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