

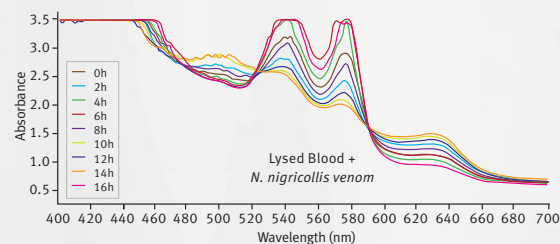
# SPECTROstar® Omega



## Microplate reader with ultrafast spectrometer

The SPECTROstar® Omega is a dedicated absorbance microplate reader that can capture either a full-absorbance spectrum or up to eight discrete wavelengths simultaneously. Upgrades can transform the SPECTROstar Omega into a powerful multi-mode reader with up to six detection modes, Simultaneous Dual Emission and injectors.

- Captures UV/vis absorbance spectra from 220-1000 nm
- Spectrum acquisition faster than 1 second per well
- Plate formats up to 1536-well
- Plate shaking and incubation up to 45°C or 65°C
- Up to two integrated reagent injectors
- Upgradeable to powerful multi-mode reader
- Compatible with LVis plate and Stacker



Time-dependent change in haemoglobin absorbance spectrum in the presence of *N. nigricollis* venom. Lysed sheep blood incubated with PBS only or *N. nigricollis* venom. Spectrum recorded at 2 hour intervals.

Due to the modularity of BMG LABTECH's instruments, 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	UV/vis absorbance	
Measurement modes	Endpoint and kinetic measurements Well scanning	
Microplate formats	6 to 1536-well plates, user-definable	
Light source	High energy xenon flash lamp	
Detector	Spectrometer with CCD	
Spectral range	Absorbance spectrometer: 220 to 1000 nm	
Sensitivity	ABS with spectrometer	Spectral range: 220 to 1000 nm Full spectrum captured in < 1 s/well Selectable spectral resolution: 1 - 10 nm OD range: 0 to 4 OD Accuracy: < 1 % at 2 OD Precision: < 0.5 % at 1 OD and < 0.8 % at 2 OD Reproducibility: $\pm 0.005$ OD for 0 - 2 OD range
Read times	Dependent on test definition	
Reagent injection	Up to 2 built-in reagent injectors Injection at measurement position (6 to 384-well) Individual injection volumes for each well (3 to 500 $\mu$ L) Variable injection speed up to 420 $\mu$ L/s Up to four injection events per well Reagent back flushing	
Shaking	Linear, orbital, and double-orbital with user-definable time and speed	
Incubation	+4 °C above ambient up to 45 °C or 65 °C	
Software	Multi-user Reader Control and MARS Data Analysis Software package included FDA 21 CFR Part 11 compliant	
Dimensions	Width: 44 cm, depth: 48 cm, height: 30 cm; weight: 28 kg	
	Accessories	
Stacker	Magazines for up to 50 plates - continuous loading feature	
Purge gas vent	System to inject an atmosphere or to pull a vacuum into the reader	
Atmospheric Control Unit (ACU)	Actively regulates O <sub>2</sub> and CO <sub>2</sub> - 0.1-20 %	
THERMOstar	Microplate incubator and shaker	
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.	

Limit of detection was calculated according to the IUPAC standard:  $3(SD_{blank})/\text{slope}$   
Specifications are subject to change without notice.

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