BioLight Toxy

Luminometer for toxicity analysis

Next generation in toxicity testing

The new and innovative Aqua Science BioLight Toxy luminometer brings rapid toxicity testing to the 21st century. BioLight Toxy offers an up-to-date, dual-option instrument for bioluminescent analysis.



Our Knowledge... Your Confidence

One system. Field or bench.

Designed and manufactured in an ISO 13485 facility, this versatile system can be used interchangeably as a field-portable or bench-top instrument.

The onboard PLC removes concerns about connectivity or using a separate computer or laptop. Embedded software makes protocol steps, results and saved data easy to use and view from the instrument.

How it works

BioLight Toxy measures light levels from the marine bacterium *Aliivibrio fischeri* in BioLight reagent to determine sample toxicity. Results are reported as % effect or EC50 (effective concentration 50%), depending on the protocol and portable or bench-top mode.

With BioLight Multi or Single Reagents and consumables, the system can screen for toxicity from over 3,600 chemical compounds simultaneously, including synergistic toxicity effects.

250 Corporate Boulevard, Suite K, Newark, DE 19702

Aqua Science LLC

www.aqua-sci.com | info@aqua-sci.com | 302-214-3916

Features & Applications

BioLight Toxy | Flexible toxicity testing



Portable features

- External power source required for field use
- Easy-to-use protocols onboard
- Results in 20 minutes

Bench-top features

- State-of-the-art software onboard; no computer or tablet required
- Read time <3 seconds
- Cooling to meet all ISO requirements
- Twice as many samples with two cooling blocks
- Run two different test protocols at the same time

Measurement & quality

The bacteria emit their brightest light following reconstitution. Light levels are measured before sample exposure and over time after exposure. The luminometer measures changes in light to indicate toxicity.

BioLight reagents are produced and tested under strict quality control and include a Quality Certificate as required by ISO 11348-3.

ISO methods

ISO 11348-1, -2 and -3 are widely recognized methods for toxicity testing with *Aliivibrio fischeri* to achieve compliance-level results. This testing is mandatory in many countries where toxicity testing is government-regulated.

BioLight Toxy incorporates the strict ISO temperature-control requirements for the reagent, read and sample cuvette wells. BioLight reagents and consumables meet ISO 11348-3 requirements for freeze-dried bacteria.

Applications

- Drinking water: source water intake and distribution water
- Wastewater: industrial influent, in-process and effluent
- Oilfields: process water
- Mining: effluent
- Soil and sediment
- Emergency response
- Marine water and marine sediment



Technical Specifications

BioLight Toxy | Luminometer & cooling block

Luminometer

Dimensions	11.8" W × 13.9" D × 9.6" H
Weight	13.1 lbs.
Power requirements	100-240 VAC
Read well	15 °C ± 0.5 °C
Reagent well	5.5 °C ± 1 °C
Versatility	External power source required for field use
On/off switch	On the unit
Display	7-inch screen
Read time	3 seconds
Data storage	16 GB (micro-SD card)
Measurement	Photomultiplier tube
Light source	Bioluminescence
Connectivity	USB; Wi-Fi (optional)
Operating room temperature	5 °C to 40 °C
Operational humidity	5%-80%, non-condensing
Remote access	Yes, with optional Wi-Fi
Certifications	RoHS, CE, IEC 61010
ISO manufacturing accreditation	ISO 9001, ISO 13485 and ISO/IEC 80079-34

Cooling block

Dimensions	7.8" W × 9.4" D × 6.0" H
Weight	11.8 lbs. (12 mm)
Power requirements	From luminometer
Cooling block well temperature	15 °C ± 0.5 °C
Well layout	Up to 60 wells
Well block for solids	Fits 17 mm tubes
Well block for water	Fits 12 mm tubes
Number of blocks per unit	Up to 2