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 the most up to date, dual option instrument available for bioluminescent analysis in the market.



It is a versatile system designed and manufactured in an ISO 13485 facility to be used interchangeably as a field-portable or bench top instrument. The onboard PLC removes any concerns with connectivity or issues when using a separate computer or laptop. The capabilities of the software imbedded in the PLC make the steps for each protocol, results, saved data and angle of the instrument easy to use and view.

How it Works:

The BioLight Toxy measures the light levels of the marine bacterium AliiVibrio Fischeri, used in the BioLight reagent to determine the toxicity of a sample. Results are reported in % effect or EC50 (effective concentration 50%) dependent on the protocol and use of the portable or bench-top instrument. Using the BioLight Toxy along with Aqua Science BioLight Multi or Single Reagents and consumables provides testing that can screen over 3,600 chemical compounds simultaneously, while also detecting synergistic toxicity effects.

The bacteria elicits the brightest light levels following reconstitution. These light levels are measured prior to sample exposure and over time after exposure to a sample, using a luminometer. The luminometer measures the changes in the light to indicate the levels of toxicity.

BioLight Reagents are produced and tested under strict Quality Control and will include a Quality Certificate as per requirements of the International Standard Organization, ISO 11348-3.

Our Knowledge... **Your Confidence**

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BioLight® Toxy

PORTABLE FEATURES

- External power source is required for field use
- Easy to use protocols on board
- Results in 20 minutes

BENCH TOP FEATURES

- State of the art software program on board
- No computer or tablet required
- Read time <7 seconds
- Cooling to meet all ISO requirements
- SCADA Connectivity
- Remote Access (with optional WiFI)

ISO

ISO 11348-1, -2 and -3 Methods are one of the most well-known methods for testing toxicity using AliiVibrio Fischeri to achieve compliance level results. This test is mandatory in many countries where toxicity testing is regulated by the government. The strict ISO requirements for instrument temperature control in the reagent well, read well and sample cuvette well are all part of the BioLight Toxy. The BioLight Reagents and consumables also meet all aspects of the ISO Method 11348-3 for freeze dried bacteria.

APPLICATIONS

- Drinking Water
  - Source Water Intake
  - Distribution Water
- Wastewater
  - Industrial influent
  - In Process
  - Effluent
- Oilfields – Process Water
- Mining – Effluent
- Soil and Sediment
- Emergency Response
- Marine Water
- Marine Sediment



BioLight® Toxy

TECHNICAL SPECIFICATIONS

Luminometer

Dimensions	11.8”W x 13.9”D x 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 is required for field use
On/Off Switch	On the unit
Display	7 in Screen
Read time	<7 secs
Data Storage	16 GB (micro-SD card)
Measurement	Photomultiplier tube
Light Source	Bioluminescence
Connectivity	USB, Wi-Fi (optional)
Operation room temperature	5°C to 40°C
Operational Humidity	5%-80% non-condensing
SCADA Connectivity	YES
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 x 9.4 D x 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	Fit 17mm tubes
Well block for Water	Fit 12mm tubes
Number of blocks per unit	Up to 2