personal

DETECTION

Now, you can optimize your personal workflow. Promega instruments and reagents integrate easily.

GLOMAX®

96 MICROPLATE LUMINOMETER

A state-of-the-art microplate Luminometer with high sensitivity and a broad dynamic range to meet the needs of all chemiluminescent and bioluminescent applications.

Promega

GLOMAX®-96 LUMINOMETER

OVERVIEW

The GloMax®-96 Microplate Luminometer is a state-of-the-art microplate luminometer that meets the requirement for high sensitivity and broad dynamic range that is necessary for chemiluminescent and bioluminescent applications. With optional Single or Dual Auto Injectors, the GloMax®-96 is a versatile luminescence system capable of performing both flash and glow-type luminescent assays.

SUPERIOR PERFORMANCE

The GloMax®-96 provides superior sensitivity and precision for all luminescent assays. Low-noise circuitry and an advanced photon-counting photomultiplier tube (PMT) provide unmatched signal-to-noise ratios. With a detection limit of 3×10^{-21} moles of luciferase, the GloMax®-96 is the most sensitive microplate luminometer available.

With its innovative detector design, the GloMax®-96 features a dynamic range of greater than nine logs. This measurement technology spans the full range of virtually all chemiluminescent and bioluminescent assays, eliminating the need to dilute samples or manage detector-driven gain changes. To achieve this extra-large reading range, the GloMax®-96 is capable of simultaneously measuring samples of varying brightness. The PMT automatically adjusts for the optimum reading of bright or dim samples. This means that the GloMax®-96 is capable of achieving 2 – 3 logs more reading range than competing luminometers.

For further functionality, the GloMax®-96 is designed to reduce crosstalk. The luminescent light path is isolated through a dual-masking system at both the detector and the well being read. Dual masking eliminates stray light by creating a column in which the light from the sample passes directly to the detector. When using white plates, this dual-masking system effectively results in a crosstalk rejection of 3×10^{-5}.

EASE OF USE

The GloMax®-96 is designed to be put into use straight from the box without the need to read a manual or obtain special training. Protocol wizards make setting up assay protocols simple while maintaining the flexibility needed for setting up advanced or custom protocols. After sample readings, the collected data is recorded directly into an Excel spreadsheet for quick and easy data analysis.

AFFORDABLE MODULARITY

The GloMax®-96 has an extra large reading range that spans the full range of virtually all chemiluminescent and bioluminescent assays. The addition of optional injectors allows the GloMax®-96 to perform both flash and glow-type luminescent assays. The combination of high sensitivity, large dynamic range, and optional injectors makes the GloMax®-96 a luminescence workhorse that easily meets the needs of a variety of luminescence applications

INSTRUMENT FEATURES

SOFTWARE SETUP WIZARDS

Software setup wizards provide an easy way to get started using the instrument without a steep learning curve. The wizards make setting up a run fast and simple while maintaining the flexibility needed for advanced or custom protocols.

DATA HANDLING

Data generated by the GloMax®-96 is saved directly into an Excel spreadsheet for easy data analysis. Analyze data when and where it is most convenient for you.

INTERNAL AUTO-INJECTION SYSTEMS

Both Single and Dual Auto Injectors are available for the GloMax®-96. Each injector has a volume range of 25 – 250 µl in 1-µl increments. Installed injectors are automatically recognized by the instrument and controlled using the PC software. The software provides PRIME and FLUSH commands for easy maintenance and a REVERSE PURGE command to save valuable reagents.

Injectors are recommended for labs running experiments with flash-based luminescence applications or two-reporter assays.

Injector/Application Chart

Injectors*	Applications
2	Dual Reporter Assays
0	Steady-Glo® Luciferase Assays
1	Flash Glow Luciferase Assays
1	Cell Viability/ATP Assays
1	Kinetics Assays

***Recommended**

DETECTION MODES

Luminescence

VISIBLE PLUMBING

GloMax®-96 has an open architecture that enables the user to inspect all tubing and tips during flushing and priming. All reagent plumbing parts are clearly visible and easy to change or clean. With this design, problems can be seen and eliminated before a run is started to save valuable time, reagents, and samples.

LUMINESCENCE LIGHT PLATE

Some labs require use of a light plate as an additional verification procedure. The optional Luminescence Light Plate provides an external control to confirm that the GloMax®-96 is functioning properly. Reading the light plate before taking measurements is a quick and easy way to ensure quality control over both the linearity and consistency of readings.

LUMINESCENCE APPLICATIONS

- Dual Reporter Assays
- Cell Viability/ATP Assays
- Kinetics Assays
- Intercellular Ca^{+2} Assays
- Immunoassays

INSTRUMENT SPECIFICATIONS

GLOMAX®-96

Available Detection Modes	Luminescence
Detector	Photomultiplier tube (PMT)
Spectral Range	350 - 650 nm
Peak Wavelength	420 nm
Detection Limit	3 x 10^{-21} moles of luciferase
Linear Dynamic Range	>9 logs
Crosstalk	3 x 10^{-5}
Read Type	Glow, Flash, Kinetic, Repeat
Sample Format	96-well microplates
User Interface	Connect to PC (not included) via serial cable
Data Output	Software reports data directly to Excel spreadsheet
External PC Requirements	Windows 95 or Windows XP
Computer Interface	RS-232 port
Power	100 - 240 VAC, 50 - 60 Hz
Dimensions	19.44" D x 18.75" W x 9.28" H (49.38 cm D x 47.63 cm W x 23.57 cm H)
Weight	~28 lbs (12.7 kg)
Operating Temperature	60 - 105 °F (15 - 40 °C)
Warranty	One year
Approvals	CE

SINGLE AUTO INJECTOR SYSTEM (OPTIONAL)

Number of Injectors	One injector
Dispense Volume Range	Selectable between 25 – 250 µl in 1 µl increments
Waste Tray Volume	~50 ml

DUAL AUTO INJECTOR SYSTEM (OPTIONAL)

Number of Injectors	Two injectors
Dispense Volume Range	Selectable between 25 – 250 µl in 1 µl increments
Waste Tray Volume	~50 ml

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