

MAESTRO PRO

The premier bioelectronic assay system



IMAGINE

A simple assay...

Bioelectronic assays monitor *in vitro* cell health and behavior. Sensitive electrodes track cellular activity, while the culture remains undisturbed.



Flexible

Noninvasively measure activity anytime, as often as needed, while cells remain in an optimally controlled environment.

Easy

Use basic cell culture techniques to perform quantitative assays that deliver high-resolution, functional data – with no need for dyes, labels, or complicated steps.

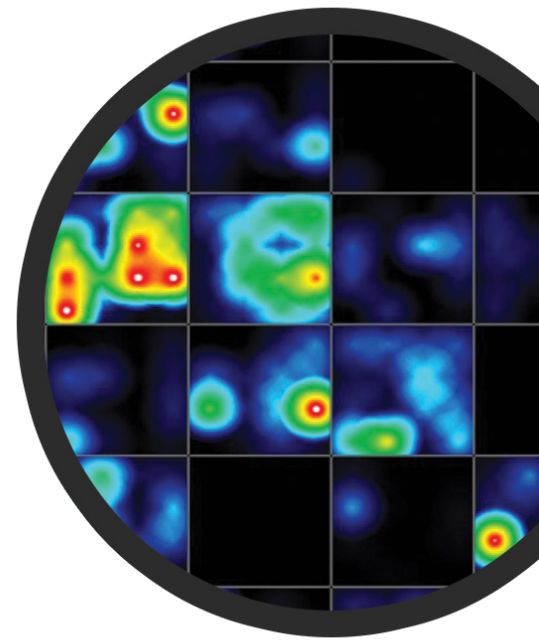
Time-saving

Measure with the push of a button or schedule recordings ahead of time. No incubation steps or complex handling required with a mostly hands-free assay.

EXPLORE

Complex biology...

The versatility of the Maestro Pro makes it **ideal for any lab**. Monitor dynamic cellular activity and perform complex functional experiments with only basic cell culture.



Electrical Activity

Create detailed functional profiles of electrically active cells using microelectrode array (MEA) technology. Repeatedly measure from the same culture and track network development and activity.

- Neurons
- Cardiomyocytes
- Skeletal muscles
- Retinal cells
- Primary or stem cells
- 2D or 3D cultures

Cellular Kinetics

Monitor the health and behavior of any cell type using impedance-based technology. Bioelectrodes measure complex dynamic responses, capturing every minute to reveal detailed cellular kinetics.

- Immuno-oncology
- Cytotoxicity
- Cell proliferation
- Barrier function
- Migration/invasion
- Cell signaling

DISCOVER

The Maestro Pro

The latest technological advances to facilitate your research. **The Maestro Pro features:**

Dynamic *responses*

Detect key parameters of neural activity, network dynamics, and cardiac functionality, measure cell growth and cytolysis, barrier function, and signaling – all label-free and in real time.

Push-button *acquisition*

Simplify processes with Maestro's automatically adjusted temperature and CO₂ levels and integrated barcode scanner that conveniently tracks plate usage.

Precise cellular *control*

Recreate specific patterns of cellular activity using electrical stimulation or light pulses (with the Lumos™ optical stimulation system).

Integrated *environment*

Easily control temperature and CO₂ levels while suppressing electrical noise and mechanical vibrations with Maestro's smart environmental chamber. No need to take up incubator space.

High-throughput *assay*

Record from 6 up to 96 wells of MEA data, or 96 up to 384 wells of impedance data. The Maestro Pro is designed for the workload of busy labs.

On-the-go *connectivity*

Use the Impedance module to track changes in cell proliferation, viability, and cell death from any mobile device. No need to be in the lab.



Customize your MAESTRO PRO



Standard Equipment

- Environmental control
- Push-button start
- Computer
- Analysis software
- Warranty

Software



Cardiac



Neural



MEA Viability



MEA Automation



Impedance



GxP Impedance



Impedance Automation

Throughput

MEA:

6-,24-,48-,96-well

Impedance:

96- or 384-well

Lumos
Optogenetic
Stimulation

Consumables



BioCircuit MEA



CytoView MEA



Lumos MEA



CytoView-Z

- 96-well, 2 LED colors
- 48-well, 4 LED colors
- 24-well, 4 LED colors

SOFTWARE MODULES

To expand your assay

The Maestro Pro platform is available with seven software modules.

Select the software modules to **match your assay needs**:



Neural - Measure electrical network behavior of neurons, including: activity, synchrony, and network oscillations, label-free.



Cardiac - Record the four key measures of functional cardiac performance: action potential, field potential, propagation, and contractility.



MEA Viability - Measure cell viability and coverage on MEA plates for a complete structure-function assay.



MEA Automation - Automate Cardiac and Neural MEA assays with this API for interfacing with liquid handling platforms.



Impedance - Track cell proliferation, viability, barrier function, immune cell-mediated killing, viral cytopathic effects, and more.



GxP Impedance - Achieve FDA 21 CFR Part 11 compliance in GMP/GLP labs with this version of the Impedance Software Module.



Impedance Automation - Automate impedance assays with this API for interfacing with liquid handling platforms.

MULTIWELL PLATES

In a range of formats

All of Axion's MEA and impedance assay multiwell plates can be used with the Maestro Pro system. Select the multiwell plates to **match your assay needs**:

Plate Technology	Assay Requirements							
	Field Potential	Action Potential (LEAP)	Contractility	Propagation	MEA Viability	Electrical Stimulation	Optical Stimulation	Impedance
BIOCIRCUIT MEA For lowest cost per well MEA assays	•	•		•		•		
CYTOVIEW MEA For MEA & cell imaging assays	•	•	•	•	•	•		
CYTOVIEW-Z For impedance assays								•
LUMOS MEA For optical stimulation MEA assays	•	•	•	•	•	•	•	



BioCircuit MEA - Maestro MEA plates with an opaque well bottom delivering high-quality results at the lowest cost per well. Available in 96-, 48-, and 24-well formats.



CytoView MEA - The premium Maestro MEA plate with a transparent well bottom for cell visualization and assay multiplexing. Available in 96-, 48-, 24-, and 6-well formats.



Lumos MEA - Maestro MEA plates designed for use with the Lumos system, featuring a transparent well bottom and light-focusing lid. Available in 96-, 48-, 24-well plate formats.



CytoView-Z - The Maestro impedance plate with a transparent well bottom for cell visualization and assay multiplexing. Available in 384- and 96-well plate formats.

Learn more:

axionbiosystems.com/maestro-pro

Contact us:

axionbiosystems.com/contact

Office locations:

North America - Europe - Asia Pacific

For pricing and ordering:

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