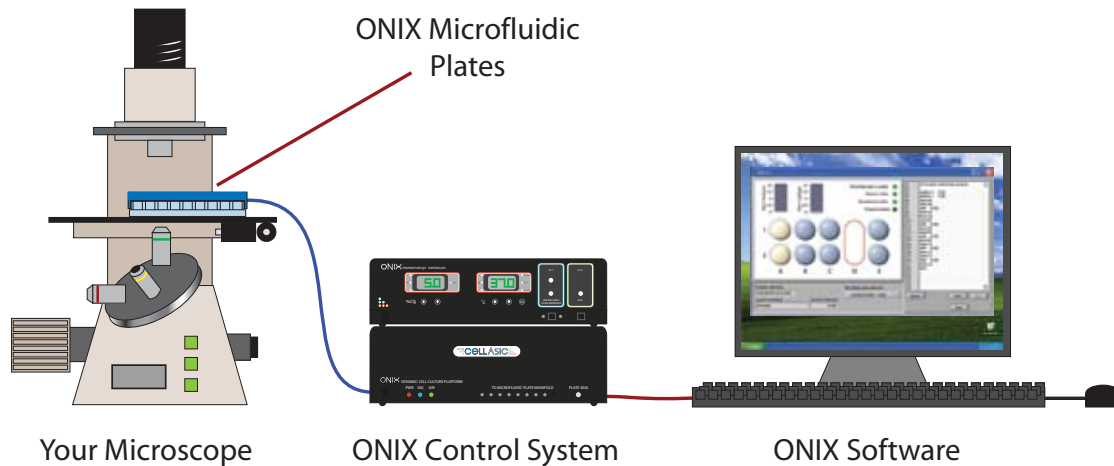


ONIX™ Microfluidic Perfusion System

Live Cell Imaging made simple. The ONIX™ uses the latest microfluidics technology to enhance cell culture quality and solution exchange dynamics. The system works with your microscope to provide a total solution for capturing the highest quality data with minimal effort.



The ONIX™ Advantage

- Easy-to-use “total solution” for long-term cell culture on your microscope
- Microfluidic design creates a better cell environment
- Real-time programmable fluid exchange during imaging

ONIX™ System

This system integrates all the components necessary to culture cells on your microscope stage. The Flow Controller has 8 separate channels for media perfusion with programmable exposures via the Function Generator software. The Temperature/CO₂ Controller maintains a “micro-incubator” environment inside the culture plate for long term experiments with optimal cell health.



ONIX™ Microfluidic Plates

The proprietary perfusion chambers on these single-use microfluidic plates enable unprecedented cell culture quality. The standard 96-well reservoirs house all of the cells and exposure solutions, making setup and operation simple and worry-free.

Technical Specs

Dynamic Flow Controller

Pressure Output: 0-10 PSI \pm 0.02
Pressure Channels: 8
Power Input: 110-240 V
Data Connection: USB
Built-in pressure/vacuum pumps
Operated via FG Software

Dimensions

310 mm (W), 257 mm (D), 113 mm (H)
Weight: 4.6 kgs

Temperature/CO₂ Controller

Temperature: ambient to 50°C \pm 0.1
CO₂: 0-20% \pm 0.1
Power Input: 110-240 V
Data Connection: RS-232 (optional)
CO₂ Input: 5-15 PSI
CO₂ Consumption: <1 ml/min (20 yrs on a standard cylinder)

Dimensions

310 mm (W), 257 mm (D), 93 mm (H)
Weight: 3.2 kgs

Microfluidic Plates

Fits standard 96-well plate stage holders
Imaging Surface: #1.5 thickness premium glass coverslip
Cell Types: Mammalian, Yeast, Bacteria
Uninterrupted Culture Time: up to 5 days
Perfusion Flow Rate: 0.2-10 μ L/hr
Chamber Refresh Rate: 1-10 mins
Input Volume: up to 350 μ L per well
For Inverted Microscopes Only

FG Software

Computer Requirements:
Windows XP, 2000, Vista Compatible
Mac OS 10.3.9 or later
USB 1.0 Connection or higher

Features and Benefits

Integrates with your Microscope: Fit to any inverted microscope to create a live cell imaging station with perfusion, temperature, and CO₂ control.

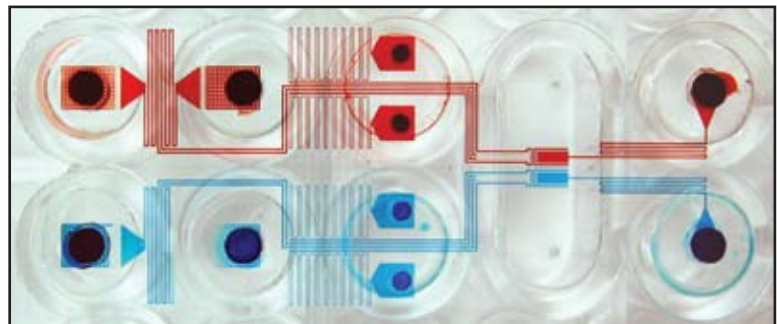
Microfluidic Cell Culture: Proprietary chamber design and precision laminar flow creates a highly stable cell environment.

Perfect CellFocus Imaging: Microfluidic features keep nonadherent cells in focus at all times even during media flow.

Multiplexed Flow Chambers: Independent flow chambers allow 2 simultaneous experiments on one plate.

Pressure Driven Flow: Eliminates setup time associated with traditional perfusion chambers while delivering more accurate flow control compared to typical syringe pumps.

Microscale Flow Control: Software interface allows you to program solution exposures in real-time during an experiment.



Fluidic channels of the cell culture plate

Example Applications

- Cell Cycle Analysis
- Protein Localization
- GFP/CFP/YFP Expression
- Calcium Flux
- Kinetic Responses to Media Change
- Cell Fixing and Immunostaining
- Time-Lapse Movies
- Temperature and CO₂ Dependent Experiments
- And many more

Contact us for questions on specific applications.

Ask about a free 30-day trial
demos@cellasic.com