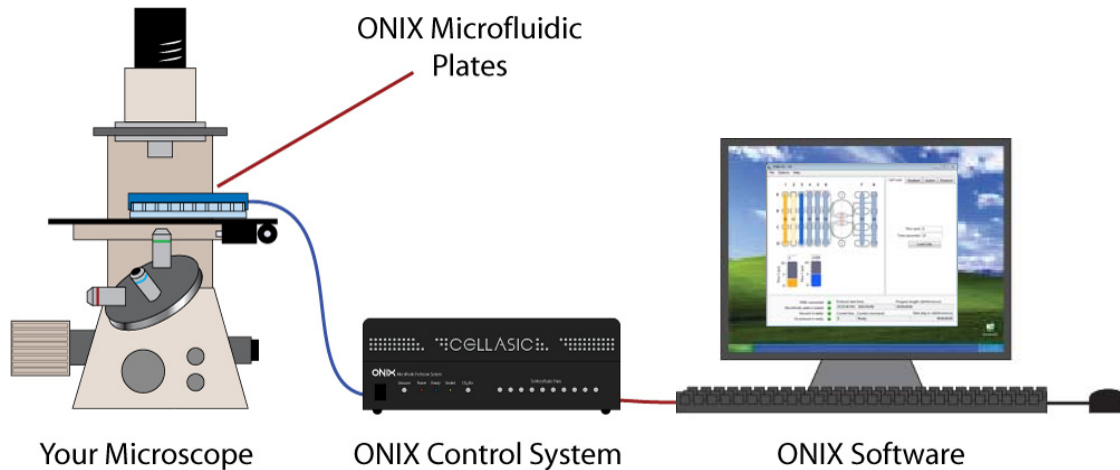




Microfluidic Perfusion System

Live cell imaging made simple. The ONIX enhances cell culture quality with advanced microfluidic perfusion technology. The system complements your microscope to provide a total solution for capturing the highest quality data with minimal effort.



The ONIX Advantage

- Automated perfusion for multi-day timelapse imaging of cellular responses
- Application specific microfluidic plates address many experiment types
- Easy setup and intuitive user interface saves time without sacrificing flexibility



ONIX System

The system integrates all the components necessary for high quality cell culture on your microscope stage. Our innovative media and CO₂ delivery method optimizes cell health during long term experiments. Intuitive software automates all operation to make data collection simple and painless.

ONIX Microfluidic Plates

Our microfluidic cell culture plates provide a highly stable cell environment for unprecedented cell culture quality. ONIX plates are available in a wide range of application specific designs to match your research needs. All solutions are directly pipette into the wells of the custom plate. Cells are cultured in microchambers with a glass coverslide floor for optimal high magnification



Technical Specs

Microfluidic Perfusion System

Pressure Output: $0-10 \pm 0.02$
8 Pressure Channels
Power Input: 110-240V
USB Data Connection
Built-in Pressure/Vacuum Pumps
Operated via FG Software

CO₂: Preset at 5%, Adjustable $0-15\% \pm 0.2$
CO₂ Input: 15 PSI
CO₂ Consumption: 1 mL/min

Temperature Control

Use with Microscope Enclosure Heaters
Compatible with Objective Heater for Immersion Imaging
No Humidity Control Necessary

Microfluidic Plates

Standard SBS 96-well Plate footprint
Imaging Substrate: #1.5 glass coverslip
Uninterrupted Culture Time: 5+ Days
Perfusion Flowrate: 1-100 $\mu\text{L/hr}$
Typical Chamber Volume: $<1 \mu\text{L}$
Input Volume: 300 μL per well
For Inverted Microscopes Only

FG Software

Computer Requirements:
Windows 7, Vista, XP, 2000 Vista
USB 1.0 Connection or Higher
Pentium III-Class PC (500 MHz or higher)

Features and Benefits

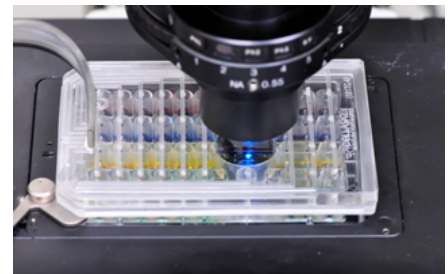
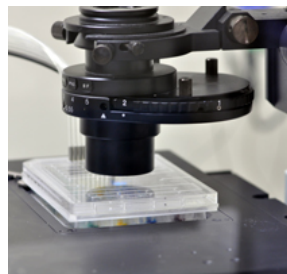
Integrates with your microscope: Fit to any inverted microscope to create a live cell imaging station.

Microfluidic Cell Culture: Proprietary microfluidic chamber and precision laminar flow creates a highly stable, optimal cell environment

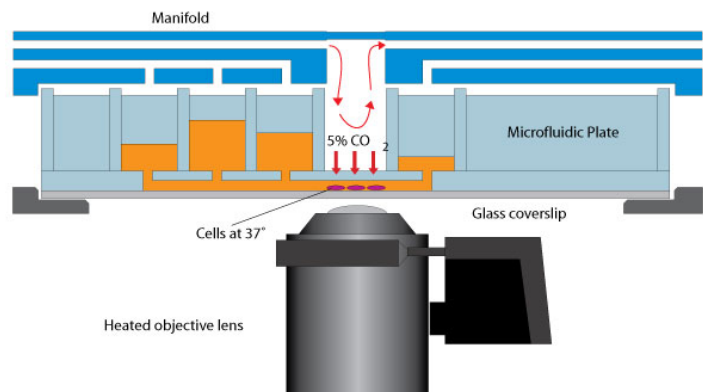
Multiplexed Culture Chambers: Independent flow chambers allow up to 16 simultaneous experiments per run.

Pressure Driven Flow: Eliminates setup time while delivering more accurate flow control compared to typical syringe pumps.

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



The low profile manifold seals to the SBS standard footprint microfluidic plate for imaging on any inverted microscope. Cell chambers are located under the imaging window for best optics.



The innovative "microincubation" method maintains temperature and gas control to the cells during long term perfusion imaging.