

BioFlux™ One

The **affordable** integrated solution for automated biological flow cell experiments

Superior Performance in an Affordable Package:

Same great BioFlux benefits:

The BioFlux One maintains the simplicity of operation and rapid experimental setup that are hallmarks of the entire BioFlux product suite. Protocols can be set up in minutes and saved for future use. All data on experimental runs is stored automatically.

Simple set-up and operation:

The BioFlux One is designed for simple experiment execution in any lab. The system is easily integrated with most inverted microscopes for real-time imaging.

A rich set of options:

The base BioFlux One package includes the Controller, Pressure Interface, and BioFlux Software. A broad range of options is available to maximize utility:

- Heater
- Environmental control to maintain gas composition
- Pulsatile flow

Fully Upgradeable:

The BioFlux One is fully upgradeable to a BioFlux 200 or BioFlux 1000z should your future research require these capabilities.

All the benefits of the industry-leading BioFlux cell analysis platform, now in a configuration every lab can afford.

Need to run flow cell experiments, but don't need 2-phase flow or high throughput? The BioFlux One is the solution; it provides all the benefits of the industry standard BioFlux system, at a price point similar to a "home brew" flow cell setup. The BioFlux system is the established standard for a wide range of complex cellular interaction assays. Now, the BioFlux One delivers the capability to perform complex modeling of the in vivo cell environment, in a package which every lab can afford.

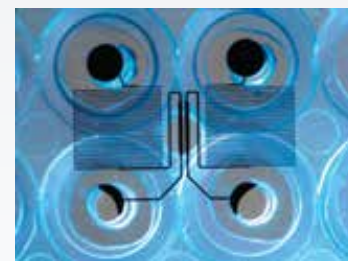
BioFlux One System Overview:

The heart of the BioFlux One system is identical to the BioFlux 200 and the BioFlux 1000z systems: automated control of flow cell experiments with Fluxion's unique WPM flow cell well plates. The BioFlux One can run up to 24 simultaneous flow cell experiments and is ideal for platelet aggregation, leukocyte adhesion, and biofilm analysis. As with all BioFlux systems, the BioFlux One works with an inverted microscope and is compatible with fluorescence, bright field, phase, and confocal imaging.

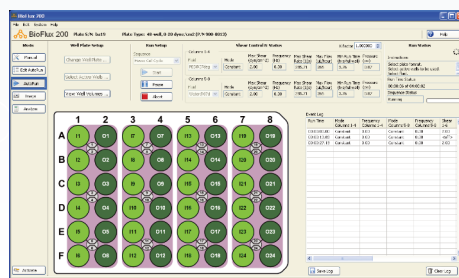
User-friendly software automates experimental protocols and includes an analysis package. Upgrade capabilities allowing for 2-phase flow and/or higher throughput make the BioFlux One the perfect choice for your functional assay research.



The Pressure Interface mounts on top of the BioFlux Plate and sits on an inverted microscope. The BioFlux One Controller connects to the Pressure Interface and controls the experiment.



BioFlux Plates are well plates with integrated flow cells that can be loaded using pipettes or liquid handling workstations. The bottom of each flow cell is formed with a 170µm cover slip for optimal imaging.



BioFlux Software offers total control over experimental conditions, including dynamic control over shear flow changes.



FLUXION

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BioFlux One Product Specifications

| BioFlux One Controller | |
|---------------------------------|---|
| Shear flow range | 0.1–200 dyne/cm ² |
| Flow control | Single-phase. Multiple stream flow requires BioFlux 200 or 1000z |
| Dimensions | 12"(W) X 13"(L) X 9"(H) 30cm (W) X 33 cm(L) X 22cm(H) |
| Example Applications | Biofilm Formation, Host/Pathogen Interactions, Cell Adhesion, Leukocyte Rolling, Platelet Aggregation, Stem Cell Differentiation |
| System upgrades | Heater, environmental gas control, and pulsatile flow |
| BioFlux Plate | |
| Plate format | 48-well SBS-standard plates, pre-sterilized. Each plate includes 24 experimental flow channels |
| Plate construction | Plates are available with these materials: 170µm coverslip glass bottom, all PDMS construction, and user-definable surface (user attaches desired material using supplied adhesive layer) |
| Throughput | Up to 24 simultaneous experiments per plate |
| Microfluidic channel dimensions | 350µm wide X 70µm tall (for glass bottom and PDMS plates) |
| BioFlux Software | |
| Operating modules | Manual, AutoRun Editor, AutoRun, Image Acquisition |
| Operating system | Windows 10 |
| Memory | 4 GB RAM |
| Available Hard Drive Space | 2 GB |
| Cables | USB 2.0 Connection |

Ordering Information

| Description | Part Number |
|---|-------------|
| BioFlux One with 48-well interface and vapor trap—no heater included. Includes software and accessory kit. | 950-0146 |
| Temperature control upgrade for BioFlux One | 950-0106 |
| Environmental control upgrade. Enables assays under hypoxia or alternative gas. Enables use of premixed CO ₂ | 950-0035 |
| BioFlux pulsatile flow module upgrade. Provides capability to mimic cardiovascular system flow | 940-0020 |



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Typical Applications:

- Biofilm formation
- Host-pathogen interactions
- Cell adhesion
- Leukocyte rolling
- Platelet aggregation
- Stem cell differentiation

Ordering Information:

To request a quote or to place an order:
sales@fluxionbio.com