

LeviCell

Powerfully Simple Workflow for Label-Free Cell Sorting.

The LeviCell platform is an all-in-one system designed to run the LeviCell disposable cartridge for label-free cell separation applications. The system includes control and analysis software and imaging.

Flow rates and collection ratios are adjustable via the control software.

No run to run calibration or clean-up is required, further improving ease of use compared to standard approaches.

Large feature sizes help prevent clogging, so no prior debris removal is required.

Two fluorescence excitation sources in addition to bright field illumination.

No aerosols or sample to sample cross-contamination; 100% of the sample remains in the consumable.

Compact format allows it to fit under standard hood or biosafety cabinet.

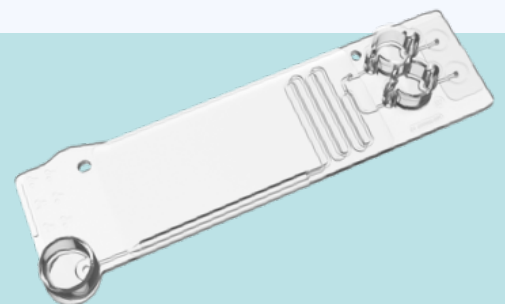
Low-pressure (<1psi) fluidics with low shear stress mean minimal stress to the cells.

Incorporated image capture and analysis software allows users to analyze cell population density and distribution, and interrogate basic morphology.

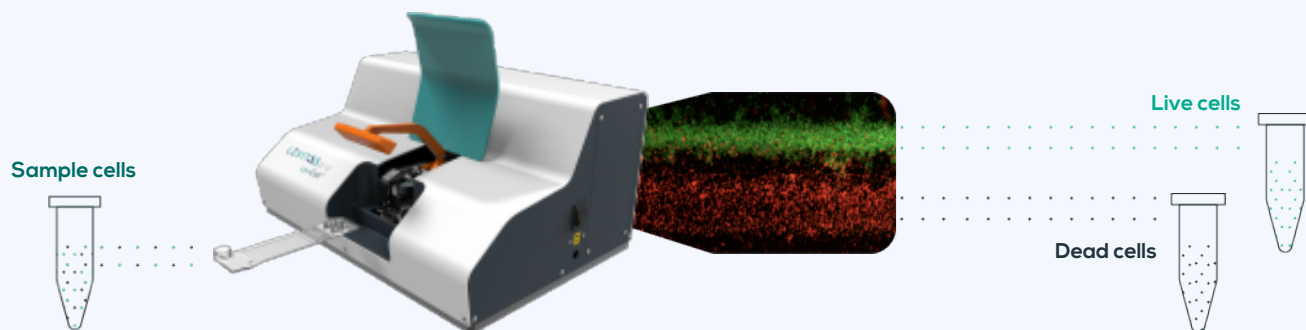
LeviCell Cartridge S2.1

The LeviCell cartridge is a single-use consumable designed to work with the LeviCell 1.0. By containing the entire sample path onboard, it prevents sample to sample cross-contamination issues and negates any cleaning requirements between runs.

- ✓ No cleaning needed. Single-use cartridge prevents cross-contamination
- ✓ Irradiated for sterility
- ✓ Inert, biocompatible plastic



How it works



1 Sample Introduction

Sample pipetted into the LeviCell cartridge.

2 Automated Label-Free Sorting

Magnetic force drives levitation based on cells' physical properties.

3 Sample Collection

Levitated cells transition into separate collection ports for removal.

Advantages over the alternatives

	Label-free	High viability	High yield	RBC removal	Ease of use	Debris removal	Gentle	Size limit
LeviCell	✓	✓	✓	✓	✓	✓	✓	350µm
Centrifuge	✓	✗	✗	✓	✗	✓	✗	N/A
Beads	✗	✗	✗	✗	✗	✗	✗	25µm
Bubbles	✗	✗	✗	Limited	✗	✗	✗	60µm
FACS	✗	✗	✗	✗	✗	✗	✗	35µm

LeviCell Technical Specifications

Flow Rates	Minimum: 1 µl/min	Maximum: 250 µl/min
Brightfield	Excitation (nm): 530	Emission (nm) 530
Fluorescence 1	Excitation (nm): 474	Emission (nm) 524
Fluorescence 2	Excitation (nm): 560	Emission (nm) 628
Density Range and Resolution	< 1.0 g/mL to >1.3g/mL	0.01g/mL or ~1%
Power	110V/220V	

Input Cells	1	Up to 2,000,000
Sample Volume	220µL	
Dead Volume	5µl	
Size Range	<1µm	350µm