



AccuLift LCM Portfolio

A Renaissance in Laser Capture Microdissection



A Complete Solution for Genomics and Proteomics Research

AccuLift™ laser capture microdissection (LCM) portfolio of products is designed to streamline and improve your LCM workflow.

Workflow

Achieve superior results for all your LCM needs with a simplified workflow.



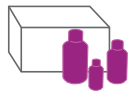
PREPARATION

The AccuLift LCM system improves tissue recovery with each laser pulse, even for challenging samples like frozen and FFPE tissue sections.



SELECTION

The AccuLift LCM system harnesses the power of infrared (IR) and ultraviolet (UV) laser cutting in one unique platform with AccuLift LCM GeckoGrip™ Caps and slides enabling superior capture efficiency.



PURIFICATION

AccuLift LCM reagent kits enable superior purification of high-quality cDNA and RNA from small quantities.



MOLECULAR ANALYSIS

AccuLift LCM reagent kits enable amplification of nucleic acids.

Highlights

Interrogate—The tissue microenvironment at single-cell level.

Visualize—High-fidelity, full-color images on screen for selection by mouse or stylus.

Uncover—Unique molecular signatures that would have otherwise been obscured in a heterogeneous cell population.

Utilize—GeckoGrip caps with micro-patterned enhancements for higher capture, extraction yields and preservation.

AccuLift LCM Systems

Two Lasers in One—A Renaissance in Laser Capture Microdissection



The Fluidigm AccuLift™ LCM system is an unparalleled laser capture microdissection (LCM) system that harnesses the power of infrared (IR) and ultraviolet (UV) laser cutting in one unique platform in combination with a novel suite of consumables, extraction reagents and user-friendly software. The entire system is designed to meet the needs of biomedical researchers and pathologists.

Power and Precision for Unmatched Flexibility and Sensitivity

The proprietary and patent-pending design of the AccuLift LCM system maximizes speed and ease of use in a streamlined workflow.



Precision

The UV laser permits superior speed and precision. The unique geometric positioning and alignment of the IR capture laser and UV laser create greater resolution, thus permitting smaller capture sizes for single cells and a small number of cells.



Efficiency

Preserve precious samples and maximize tissue recovery. Designed to work with multiple sample inputs and produce enough cDNA.



Speed

The UV laser option enables superior speed suited for dense tissue structures when you want to harvest large numbers of cells from your sample.



Stability

The system features a proprietary cap placement system to achieve improved precision and stability. This helps to improve the LCM polymer spot functionality such as adherence to cells and spot diameter, allowing you to achieve smaller capture sizes.



Technology

The AccuLift LCM system is based on the Olympus ix73 inverted microscope with high-quality optics. Standard instrument objectives are 2x, 10x, and 40x. It also includes a streamlined software interface based on commercially available packages that come standard with the base microscope.



AccuLift LCM Release Slides

For Tissue Preparation

Improve tissue recovery with each laser pulse, even for challenging samples including frozen and FFPE tissue sections. AccuLift™ LCM Release Slides are designed to reduce the attractive force between your tissue slide and your tissue. Unlike ordinary glass slides, which retain a strong attractive force for your tissue sample during microdissection, our proprietary slides are coated with an optically transparent, IR-reflective material that releases your tissue sample as it is microdissected.

Product	Quantity	Product Number
AccuLift LCM Release Slides	10 pack	10005



AccuLift LCM GeckoGrip Caps

For Cell Selection and Isolation

Designed to overcome the challenges of traditional LCM and compatible with all LCM, IR/UV LCM systems. Variation in tissue prevents the entire capturing surface of a traditional LCM cap from contacting the tissue surface. Instead, caps touch only the tissue mountains while failing to contact the valleys. This leads to poor recovery of the targeted tissue area. New AccuLift LCM GeckoGrip™ Caps can accommodate the uneven tissue surface and reach into the valleys and crevasses on the tissue to overcome this challenge. Each AccuLift™ LCM GeckoGrip Cap has over 1,000 unique microscopic GeckoGrip feet per mm² of cap surface to maximize tissue recovery.

Product	Quantity	Product Number
AccuLift LCM GeckoGrip Caps	24 pack	10004



AccuLift LCM Purification Kits

For Extraction

Purify nucleic acids from laser-microdissected tissue sections using AccuLift™ purification products that are specially designed to process very small amounts of starting material.

AccuLift RNA Spin Column Micro Prep Kit

PN 10010

Easy, reliable and rapid isolation of DNA-free RNA from a wide range of cell (up to 10^6) and tissue samples (up to 5 mg) in about 10 min

AccuLift RNA Cleanup and Concentrator Kit

PN 10012

A simple and reliable method for the rapid preparation of up to 10 μ g of high-quality RT-PCR-ready, DNA-free RNA in under 5 min

AccuLift Rapid RNA Extraction Kit for LCM

PN 10006

Fast, simple, single-tube system for preparing RNA for cDNA synthesis



AccuLift LCM Molecular Analysis Kits

For Amplification

Amplify nucleic acids using the AccuLift™ ultrasensitive technologies, which are designed for very small amounts of starting material.

AccuLift First-Strand cDNA Synthesis Kit

PN 10008

Amplifying mRNA for significantly improved qRT-PCR

AccuLift Ultra-sensitive RNA Amplification Kit for LCM

PN 10007

Amplifying mRNA [poly(A) RNA] directly from the cell lysates without the need for isolating total cellular RNA

System Specifications

Feature	Details	Standard	Options*
Microscope	Olympus ix73 microscope base	X	
	Standard microscope operation outside of LCM operating software	X	
Laser	Infrared (IR) Capture Laser: Solid-state, near-IR (808 nm) with adjustable power output	X	
	UV Laser: Solid-state, diode-pumped passively Q-switched (355 nm) with 20kHz sub-nanosecond pulse rate		X
Illumination	High-intensity Halogen illumination system 100W transmitted light pillar for ix73 U-LH100IR-1-7; 12V/100W Halogen Lamphouse	X	
	Olympus Diascopic Illumination Tower for contrast imaging (100 W halogen lamp) Long WD DIC/Phase Condenser, NA 0.55, WD 27MM		X
Objectives	2x, 10x, and 40x Olympus PLAPON; PLAN APO objectives	X	
	4x, 20x, 60x, and 100x dry		X
Epi-fluorescence	2,000-hour broad-spectrum metal halide lamp; user-replaceable with no alignment required. Six-position fluorescence filter turret with three filter cubes (R,G,B) and three available positions for application-specific filter cubes.		X
Stage	Motorized, joystick- or software-actuated in X and Y axes with 0.25 µm homing accuracy and 0.25 µm bidirectional reproducibility for autonomous microdissection. Click-and-walk technology.	X	
Contrast methods	Bright field	X	
	Phase contrast (PhL, Ph1, Ph2)		X
	Differential interference contrast (DIC)		X
Microdissection camera	Color CMOS camera with large field of view and high resolution (5MP), low noise, frame rate of 75fps at the full 5MP resolution	X	

* All options are field-upgradable for installation at a later date.

System Configuration and Ordering Information

Product	Product Number
AccuLift™ Skywalker LCM System—IR	10150
AccuLift Yoda LCM System—UV and IR	10151
AccuLift UV Laser Upgrade	10155

Consumables Configuration and Ordering Information

Product	Quantity	Product Number
AccuLift™ LCM GeckoGrip™ Caps	24 Pack	10004
AccuLift LCM Release Slides	10 Pack	10005
AccuLift Rapid RNA Extraction Kit for LCM	50 Samples	10006
AccuLift Ultra-sensitive RNA Amplification Kit for LCM	10 Samples	10007
AccuLift First-Strand cDNA Synthesis Kit	50 Samples	10008
AccuLift RNA Spin Column Micro Prep Kit	50 Samples	10010
AccuLift DNA FFPE/Frozen Extraction Micro Prep Kit	50 Samples	10011
AccuLift RNA Clean Up and Concentrator Kit	50 Samples	10012

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