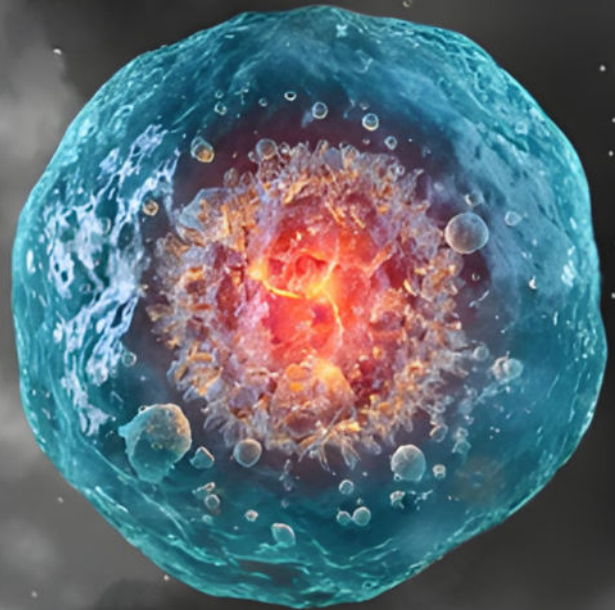




All-in-One Single-Cell Solution

Unlock the Cellular World

From Imaging to Isolation:
One Platform – Infinite Potential



All in One Single Cell Solution

Isolating specific cells or regions of interest (ROI) requires precision. Harsh or imprecise methods can damage cells, alter molecular profiles, or cause sample loss, leading to unreliable and irreproducible results while wasting time and resources.

MMI offers the gentlest, most effective solutions for isolating single cells, larger ROI, and even subcellular compartments. Samples can be excised with contact-free laser microdissection (LMD) (CellCut) or gently harvested with cell picking (CellEctor). Both methods achieve near 100% efficiency. MMI systems protect sample integrity, reduce repeated experiments, and ensure reliable, reproducible results—enabling high-quality data for all your genomics, transcriptomics, and proteomics applications. These capabilities are further enhanced by a fully compatible whole slide imaging system (CellScan) and an AI-supported cell segmentation tool (CellDetector).

Design Your Ideal Research Setup

All MMI solutions are fully modular: each tool can be used independently or combined to create flexible workflows tailored to your experiment. You can also choose from a range of inverted microscopes, providing greater flexibility for different objectives and imaging modes, including fluorescence.

Laser Microdissection CellCut

- Get meaningful results with the most gentle isolation of ROI
- Never lose your sample
- Automated high-throughput LMD in 96-well plates

Cell Picking CellEctor

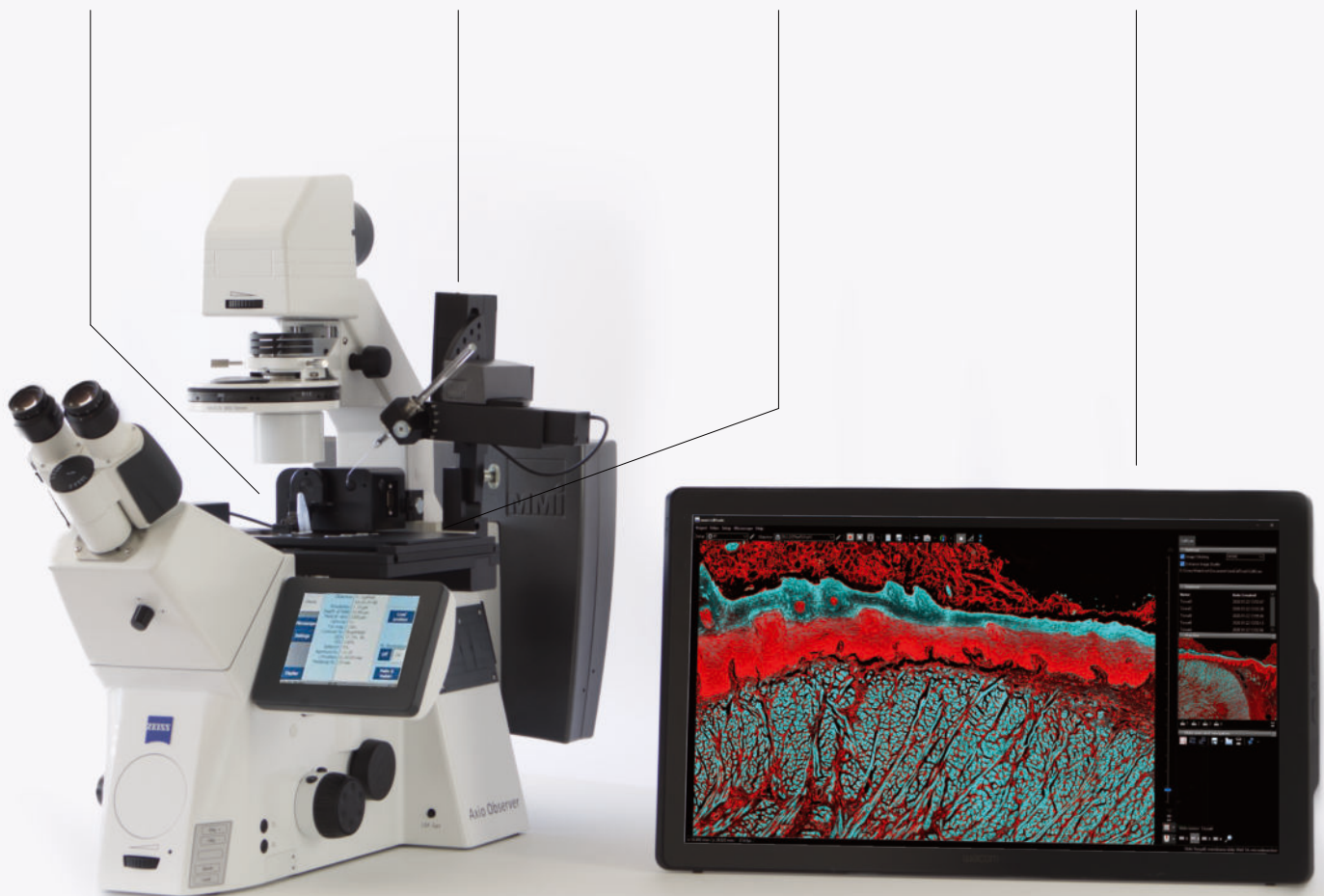
- Precise single-cell isolation from suspension
- Use a broad range of slides and well-plate formats

Whole Slide Scanning CellScan

- Scan your slides in 5 dimensions: XY, Z-stack, time-lapse, and multi-fluorescence
- Combine your whole slide scanner with LMD

Cell Segmentation CellDetector

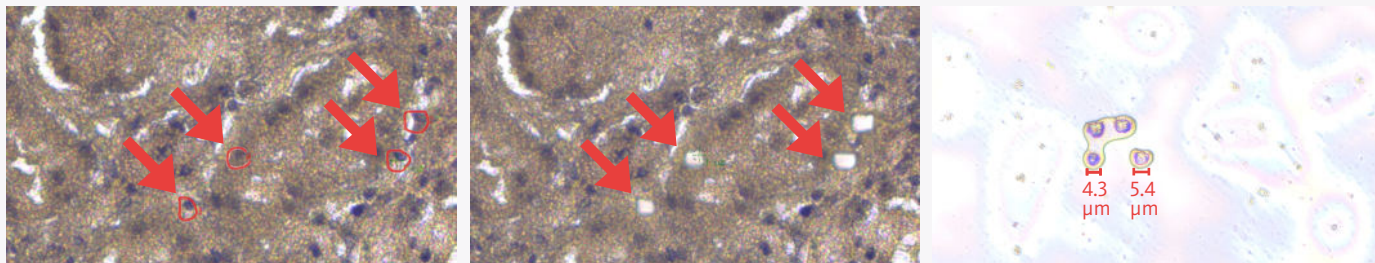
- AI software to automate image analysis for faster, more reliable results
- Combine with automated LMD for precise and efficient workflows



The MMI CellCut & CellEctor on the Zeiss Axio Observer inverted microscope. The system is compatible with many microscope brands and models.

Dissection Perfection

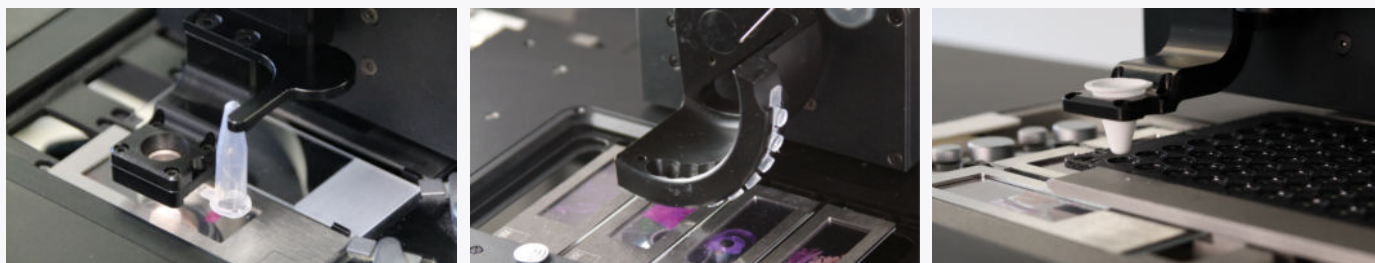
The CellCut laser Mmicrodissection system offers the gentlest way to isolate cells. Its contact-free method creates an exceptionally precise cutting edge—down to 0.3 μm —allowing even subcellular compartments, such as cell nuclei, to be isolated with ease. Sample integrity is fully preserved, while ongoing visual inspection lets you track your samples at all times for maximum confidence in your results.



Isolation of cell nuclei: Kidney tissue, FFPE, 3 μm , H&E, 40X. **Left:** Four individual nuclei marked for dissection with MMI CellCut (arrows). **Middle:** Excised nuclei within the tissue (arrows). **Right:** Isolated nuclei on the IsolationCap. All four nuclei were successfully recovered; diameters of two nuclei: 4.3 μm and 5.4 μm .

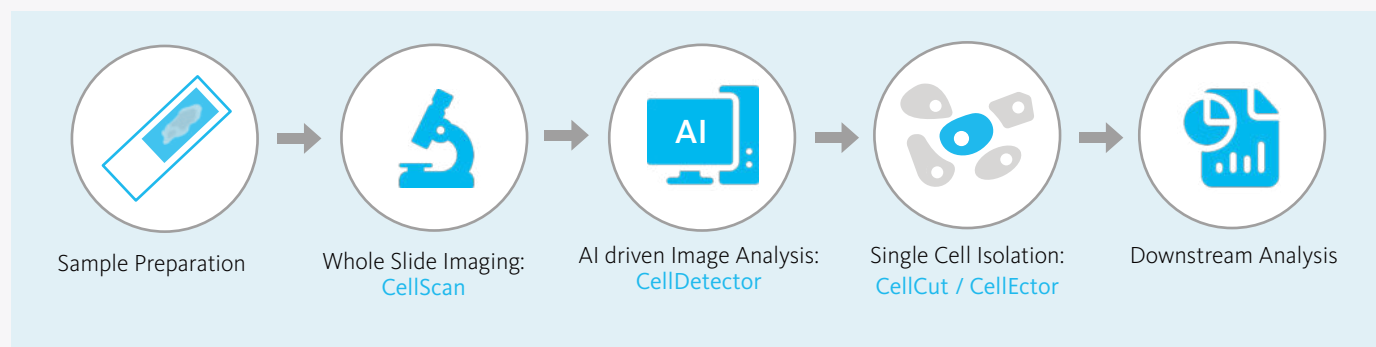
Select Your Ideal Throughput

The MMI CellCut system can be used for a variety of throughput options for automated single-cell isolation using laser microdissection. It employs a gentle UV laser, ensuring near-100% collection efficiency while maintaining sample integrity. Cells can be isolated into individual reaction tubes (Single Caps) or into strips containing eight separate tubes (MultiCap), or 96-well plates for high-throughput applications (CellCut HT), providing flexible and reliable workflows for downstream analysis.



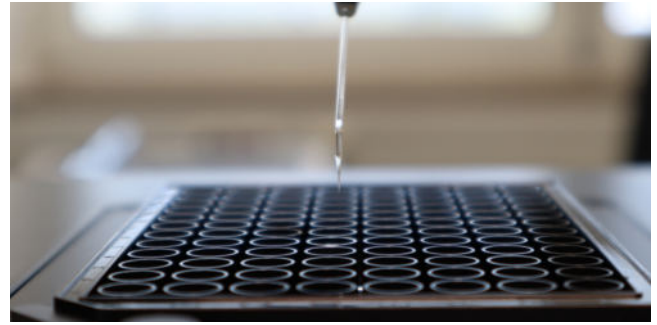
Automated laser microdissection. **Left:** CellCut – isolation of single cells into reaction tubes. **Middle:** CellCut – isolation of single cells into 8 tube strips. **Right:** CellCut HT – high throughput isolation into 96-well plates.

Typical Single Cell Isolation Workflow



Just Pick It

Cell picking with the MMI CellEctor is crucial when individual cells in suspension—such as circulating tumor cells (CTCs), rare cells, or sperm cells—need to be gently isolated. In contrast, methods like FACS can damage or lose cells, which is especially problematic when targets are extremely rare or require highly precise selection. The CellEctor offers a gentle alternative that preserves cell integrity and supports excellent outgrowth rates after transfer. In combination with the CellDetector, target cells are automatically detected, and the entire picking and collection process is fully automated.

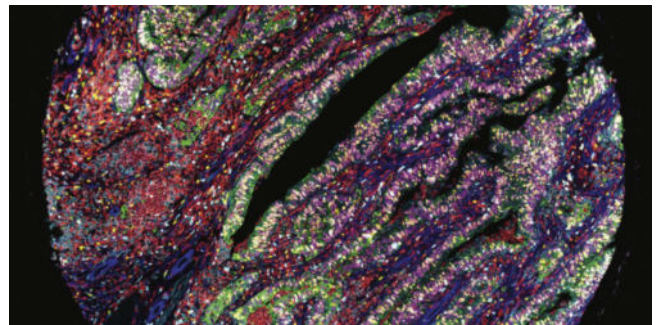


The CellEctor is compatible with a variety of slide and well-plate formats. A wide range of microcapillaries with different diameters is available, allowing gentle isolation of everything from small single cells to larger structures like organoids.

AI-Driven Cell Insights

Powerful software solutions for whole slide imaging (CellScan) and AI based image analysis (CellDetector) streamline cell picking and laser microdissection by creating automated workflows to identify and segment single cells. The CellScan enables fast whole-slide imaging in 5 dimensions: XY, Z-stack, time-lapse, and multi-fluorescence. A whole slide can be scanned in under 7 minutes (20× objective). The resulting whole-slide images can be directly applied for LMD once the cell shapes are marked, either remotely or using cell segmentation tools like CellDetector.

CellDetector is an AI-driven analysis software that automatically detects and counts cells from any tissue. Tumor regions in IHC- or fluorescence-stained samples are identified directly by the software, eliminating the need for time-consuming manual annotations. With accurate automated tissue analysis, cells can be segmented and their shapes used for cell picking or LMD—bringing digital pathology to a new level.



Segmentation of cells in a multi-fluorescence stained sample using CellDetector.

Order Information

Item	MMI order code
CellCut	[10200]
CellCut HT	[102003]
CellEctor	[10300]
CellScan	[10600]
CellDetector	[10501]

Key benefits

- Modular setup – Invest in only what you need: LMD, Cell Picking, WSI, and Cell Segmentation.
- Choose your microscope and imaging modes – Select a suitable inverted microscope or use a compatible one you already have.
- Most precise cutting – Even subcellular structures can be accurately dissected.
- Flexible throughput – From single tubes to 96-well plates.

BR_Unlock the Cellular World_B

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Demo and
Details

