MICROSCOOP®/ MINT
The First Subcellular "Pickable" Microscope

TECHNICAL SPECIFICATIONS

DESCRIPTION		SPECIFICATIONS
Function		Optoproteomics: Ultra-content high-speed microscopy-guided subcellular photoaffinity labeling for hypothesis-free high-precision proteomic discovery
Workflow		Cyclic procedure of the following step: 1. Microscopy imaging: image acquisition 2. Pattern segmentation: selection of user-defined regions of interest 3. Patterned scanning illumination: point-by-point photochemical reactions 4. Stage movement: change of the field of view
Components		❶ Microscoop® system (optical engine and electrical controller) ❷ Inverted epifluorescence microscope Filter sets for microscope ❸ Epifluorescence illumination light source ❹ Two-photon laser for Microscoop® photolabeling ❺ Camera ❻ Software package
❶	**Dimensions (L x W x H)**	Electrical controller : 44 cm × 22 cm × 47 cm Optical engine: 68 cm × 46 cm × 22 cm
	Power Source	100 - 240 VAC, 50/60 Hz
❷	**Objectives**	10x (up to NA 0.45) 20x (up to NA 0.80) 40x (up to NA 0.95)
	Stage	Motorized XY positioning stage (X: ±57 mm, Y: ±36.5 mm stroke) with a vessel holder, suitable for microscope slides, chamber slides, or micro-dishes
❸	**Imagery Wavelength**	Dyes: e.g. DAPI, FITC, Cy3, Cy5 Fluorescent proteins: e.g. EBFP2, EGFP, DsRed/mCherry
❺	**Camera**	sCMOS camera (resolution: 2048 × 2048, pixel size: 6.5 µm × 6.5 µm)
	Binning Options	Low resolution mode: 800 × 800 pixels High resolution mode: 1600 × 1600 pixels
❻	**Operating System**	Microsoft Windows 10
	Pattern Segmentation Options	Toolbox for traditional image processing Trained model using AI deep learning
Labeling Resolution		300 nm+**
Sample Format		Cells - fixed on a chambered coverslip Tissues - slide mounted FFPE (5 - 10 µm in thickness) or frozen tissue section (10 - 20 µm in thickness)
Sample Size Requirement		Cell numbers: 4×10^5 to 1×10^6 cells for a single LC-MS/MS analysis* Tissue slides: 4 - 8 tissue section for a single LC-MS/MS analysis*

*Application dependent on and varying with the area and the number of ROIs. **Objective dependent
All product specifications and data are subject to change without notice to improve reliability, function, design, or otherwise. For Research Use Only. Not for use in diagnostic procedures.

⊕ WEBSITE   Linked in