



MICROSCOOP / MINT

The First Subcellular "Pickable" Microscope



TECHNICAL SPECIFICATIONS

DESCRIPTION	MICROSCOOP / MINT™ SPECIFICATIONS
Function	Optoproteomics: Ultra-content high-speed microscopy-guided subcellular photoaffinity labeling for hypothesis-free high-precision proteomic discovery
Components	Microscope system (Optical engine and controller) Inverted microscope Filter sets for microscope Epifluorescence illumination light source Two-photon laser for microscope photolabeling Camera Software package
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
Camera	sCMOS camera (resolution: 2048 × 2048, pixel size: 6.5 μm × 6.5 μm)
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
Operating System	Microsoft Windows 10
Dimensions (L x W x H)	Control unit: 44 cm × 22 cm × 47 cm Optical unit: 68 cm × 46 cm × 22 cm
Power Source	100 - 240 VAC, 50/60 Hz
Imagery Wavelength	Dyes: e.g. DAPI, FITC, Cy3, Cy5 Fluorescent proteins: e.g. EBFP2, EGFP, DsRed/mCherry
Pattern Segmentation Options	Toolbox for traditional image processing Trained model using AI deep learning
Binning Options	Low resolution mode: 800 × 800 pixels High resolution mode: 1600 × 1600 pixels
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.



syncell.com / +886-2-2785-6780

14F., No. 508, Sec. 7, Zhongxiao E. Rd., Nangang Dist., Taipei City 115, Taiwan

©2023 Syncell, Inc. All right reserved. Syncell, Microcoop, and Microcoop Mint are pending trademarks of Syncell (Taiwan), Inc.. DOC#MC AN-003, Apr, 2023



WEBSITE



LinkedIn