MACSima Imaging System Specification

Microscope		
	Instrument type	Multiplex Imaging System based on widefield epifluorescence microscope
	Camera	sCMOS camera (15 megapixel, 25 mm diagonal field of view)
	Excitation	Six excitation LEDs (filters: 386/23 nm, 420/10 nm, 470/40 nm, 531/46 nm, 628/32 nm, 725/40 nm)
	Emission	Five emission filters (470/40 nm, 530/43 nm, 580/25 nm, 698/70 nm, 809/81 nm)
	Autofocus	Dual approach of hardware- and image-based autofocus mechanisms
	Objectives	• 2× objective to generate overview images; NA 0.1 • 20× long working distance objective (designed for 1 mm thick slides); NA 0.45 • 20× objective with high numerical aperture (designed for 170 µm thick cover glass); NA 0.75
	Bleaching unit	• Illuminated area: 3 mm × 3 mm • Light intensity: 2 W
Liquid handling system		Robotic needle arm allowing fully automated liquid transfer
Sample and reagent stage		Automated stage, Automated sample and reagent carrier positioning
MACS Software		MACSima™ (Acquisition); MACS iQ View (analysis)
MACS staining method		Cyclic Staining (DAPI/FITC/PE/APC)
Application		Multiplex imaging for fixed human/mouse sample or fixed adherent cells