

Confocal 10 – dual mode (confocal/widefield) imaging system (August 2020)

Technical Specifications

- Leica SPE single channel confocal laser scanning microscope attached to a Leica DMI8 inverted epifluorescence microscope.
- Transmitted light detector for phase contrast/DIC.
- Equipped with solid state lasers: 405nm (25mW), 488nm (10 mW), 532nm (10mW) and 635nm (18mW).
- Suitable for a wide range of blue, green, red and far-red fluorophores.
- AOTFs for all laser lines allow rapid attenuation, ROI scanning and localised photo-bleaching.
- 2 beam splitter combinations – 405/488/635 and 488/532.
- Simple selection of sequential imaging by inputting fluorophore names.
- Online 3D software enables simple 3D projections and movie export.
- No incubator or motorised stage.
- Not flat field at edges of FOV so users advised to zoom at least 1.5-2X.
- Leica DFC365FX monochrome digital camera (1392x1040 6.45µm pixels, 8 or 12 bit, 21 fps full frame).

Filters for visual inspection

	Excitation range	Fluorophore (examples)	Excitation filter	Dichroic mirror	Emission filter
DAPI LP	UV		BP 360/40	400	LP 425
FITC LP	Blue	FITC, GFP, Alexa 488	BP 470/40	510	LP 515
RHOD LP	Green	Rhodamine, propidium iodide, Alexa 532	BP 540/45	580	LP 590

Lenses

Lens	Dry/Oil	Phase contrast	DIC	Working distance (mm)	Numerical aperture	Features	Serial number	Image size at 2x zoom in microns
5x HCX PL Fluotar	Dry	No	No	13.7	0.15		506224	1100
10x ACS APO	Dry	No	Yes	3	0.3		507902	550
20x ACS APO	Imm	No	Yes	0.2	0.6	Coverglass thickness correction	507904	275
40x ACS APO	Oil	No	Yes	0.27	1.15		507901	137.5
63x ACS APO	Oil	No	Yes	0.16	1.3		507900	87.3