

Leica SP8 upright

An upright fluorescence confocal microscope equipped with four excitation lasers, dipping objectives with long working distance, oil immersion objective and 1x HyD detector and 2x PMTs. Presence of camera, epifluorescence lamp and removable infrared filter allows also widefield imaging in infrared area. Accessory for electrophysiological experiments is also available. For more detailed microscope characteristics please see the section “Microscope”.

Application

- Fast and multi-color confocal imaging
- Fast and multi-color widefield imaging
- Various measurement options: z-stack, time series
- Spectral imaging, measurement of emission spectrum
- Option of infrared detection in widefield imaging
- Brightfield and polarized light microscopy

Microscope

An upright confocal microscope DM6 CFS with a laser scanning confocal head Leica TCS SP8, a manual microscope stage, Best focus control, transmitted light LED U-12V, removable infrared filter, square pinhole of tunable size and following units:

Software	LAS-X
Epifluorescence lamp	Leica EL6000
Lasers	405, 488, 552, 638 nm (all cw)
Beamsplitters	DD 488/552 TD 488/552/638 RT 15/85
Filter turret – filter cubes for epifluorescence lamp	DAPI 325-375 400 435-485 FITC 460-500 505 512-542 RHOD 541-551 560 565-605 CY5 590-650 660 662-738 – not inserted Analyser
Objectives	HC APO L 10x (W) , NA 0.30 , WD 3.7 mm, dipping objective HC FLUOTAR L 25x (W) , NA 0.95 , WD 2.5 mm, dipping objective HC PL APO CS2 63x Oil , NA 1.40 , WD 0.14 mm Two objectives are installed at maximum.
Scanner	FOV SP8 scanner - maximal sampling 8192x8192px, - speed 1-1800 Hz (7fps@512x512 px) - hardware zoom 0.75x-48x

Detection	<p>Transmitted light detector (PMT)</p> <p>Internal spectrally tunable detection unit</p> <ul style="list-style-type: none">- 1x HyD detectors (GaAsP, 400 – 720 nm, Modes: Standard, Counting, BrightR), QE=45%@500nm- 2x PMT detectors (400-800nm), QE=30%@500nm <p>Camera DFC365 FX (Leica)</p> <ul style="list-style-type: none">- 1392 x 1040 pixels- 6.45 μm x 6.45 μm- CCD sensor Sony ICX285- C-mount 0.7x
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