

From Eye to Insight



Fluorescence Stereo Microscope Solutions

BRIGHT IMAGES AND FAST SCREENING IN ONE

Leica M205 FCA

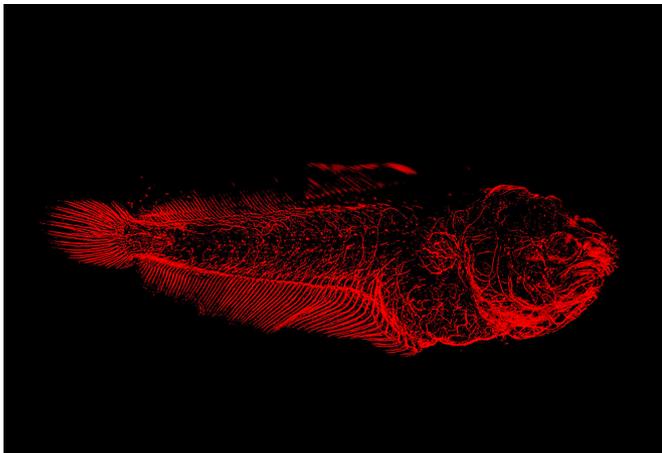


DETECT FAINT SIGNALS – ALWAYS!

In molecular and genetic cell research, it's critical to witness transgene expression in early stages, to select the right sample to base your studies on. That's why you need a stereo microscope with superb brightness and a manual zooming option for fast and efficient screening. The Leica M205 FCA fluorescence stereo microscope now unites two worlds. It combines high-end imaging with super-fast screening to give you bright images fast.

Get a bright fluorescence signal

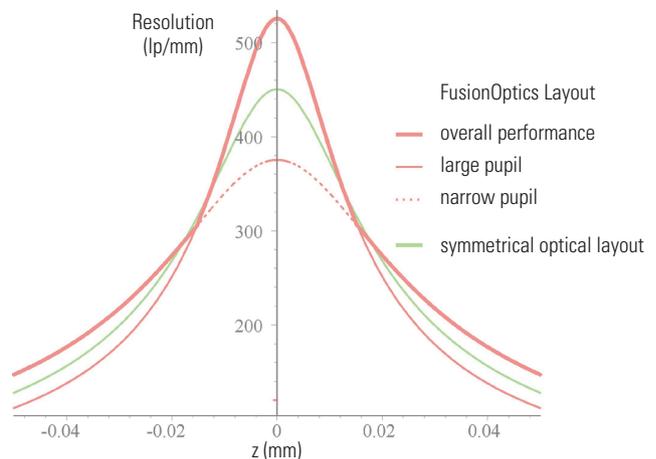
With separated, yet synchronized beam paths, one for the fluorescence excitation light and two for observation, the M205 FCA delivers an evenly and fully illuminated field of view at any zoom position you choose. The TripleBeam technology eliminates reflections in the observation path and leaves you a strong fluorescence signal with a noise-free, solid black background.



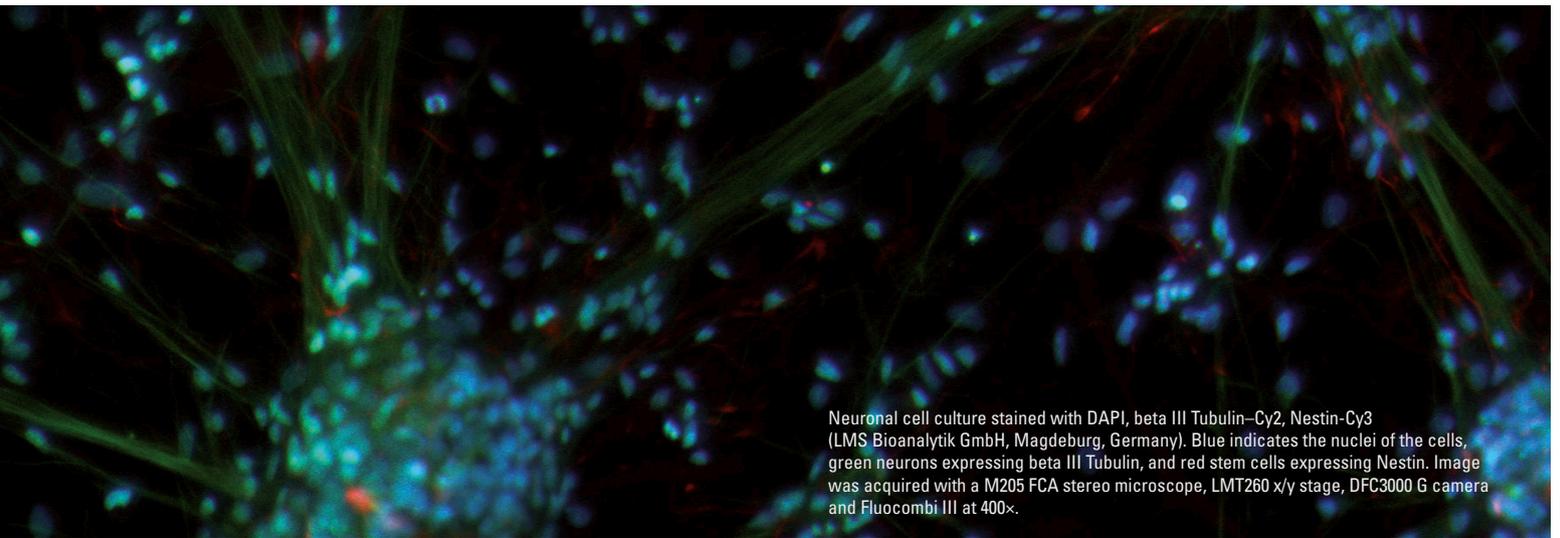
Solea senegalensis larvae nervous system, max. projection of a tile scan of 6 fields \times 33 planes. Parallax correction and tiling performed in LAS X after deconvolution with Huygens professional. Dr. Marco A. Campinho, CCMAR – Centre for Marine Sciences, Universidade do Algarve, Portugal.

Finest details in 3D

FusionOptics technology overcomes optical limitations. Uniting high resolution and depth of field (DOF) it provides increased image brightness and facilitates orientation in 3D.



With FusionOptics higher resolution can be achieved (red line) than with traditional optics (green line). At the same time more DOF is achieved.



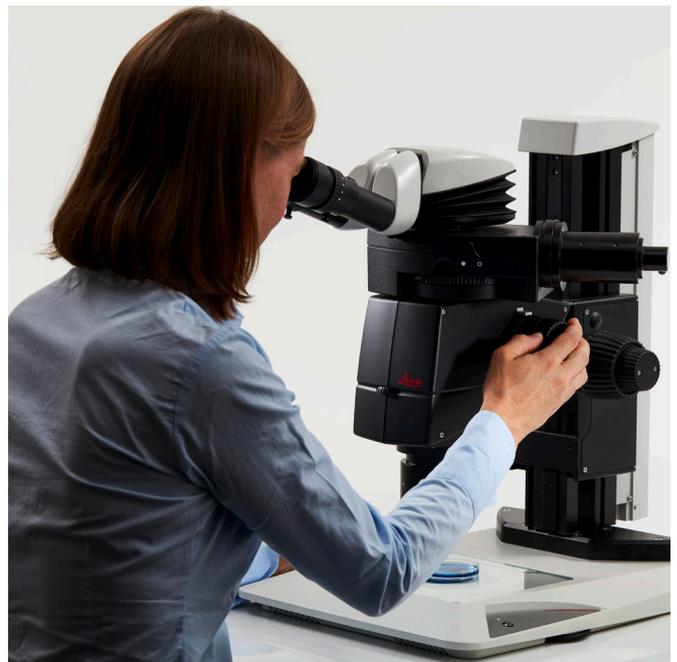
Neuronal cell culture stained with DAPI, beta III Tubulin-Cy2, Nestin-Cy3 (LMS Bioanalytik GmbH, Magdeburg, Germany). Blue indicates the nuclei of the cells, green neurons expressing beta III Tubulin, and red stem cells expressing Nestin. Image was acquired with a M205 FCA stereo microscope, LMT260 x/y stage, DFC3000 G camera and Fluocombi III at 400x.

2-in-1: the screening and imaging solution

With the large zoom range of 20.5:1 you can quickly change from a broad overview to the finest details. While the 1.0x PlanApo objective with a numerical aperture (NA) of 0.17 provides a large working distance the 2.0x CORR objective offers an unmatched NA of 0.35. Zoom-in manually and trust the fully coded system auto-storing all parameters with your image for reliable and publishable results.

Continue working

Eliminate interruptions of your workflow: The unique four position coded filter changer allows you to work with several different fluorochromes. Move filters manually or automated and just continue working. Take advantage of the optional footswitches to easily change filters and focus or change the illumination setting during screening.



SPECIFICATIONS

LEICA M205 FCA

OPTICAL DATA	20.5 : 1 manual, coded with FusionOptics
Zoom	
Data with standard optics (1× objective/10× eyepieces)	
– Zoom range	7.8×–160×
– Resolution	max. 525 lp/mm
– Working distance	61.5 mm (planapochromatic)
– Object field	∅ 29.5 mm–1.44 mm
Maximum values (based on optics combination)	
– Magnification	1.280×
– Resolution	1,050 lp/mm
– Visible structural width	476 nm
– Numerical aperture	0.35
– Object field	∅ 59 mm
Working distances	135 mm (0.5× planachromatic) 112 mm (0.8× planachromatic) 67 mm (0.63× planapochromatic) 61.5 mm (1× planapochromatic) 30.5 mm (1.6× planapochromatic) 20.1 mm (2× planapochromatic)
OPTICS CARRIER	
100 % apochromatic optical system	CMO (Common Main Objective) lead-free
Specific surface resistivity (housing)	$2 \times 10^{11} \Omega/\text{mm}^2$ discharge time <2 seconds from 1,000 V to 100 V
Encoded/automated	Zoom, iris diaphragm, objective nosepiece, filter
Engageable zoom notches	14 for repetitive tasks
Double-iris diaphragm for depth of field control	Built-in and encoded
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