The Pathology Company

Leica BIOSYSTEMS

Leica DFC3000 G

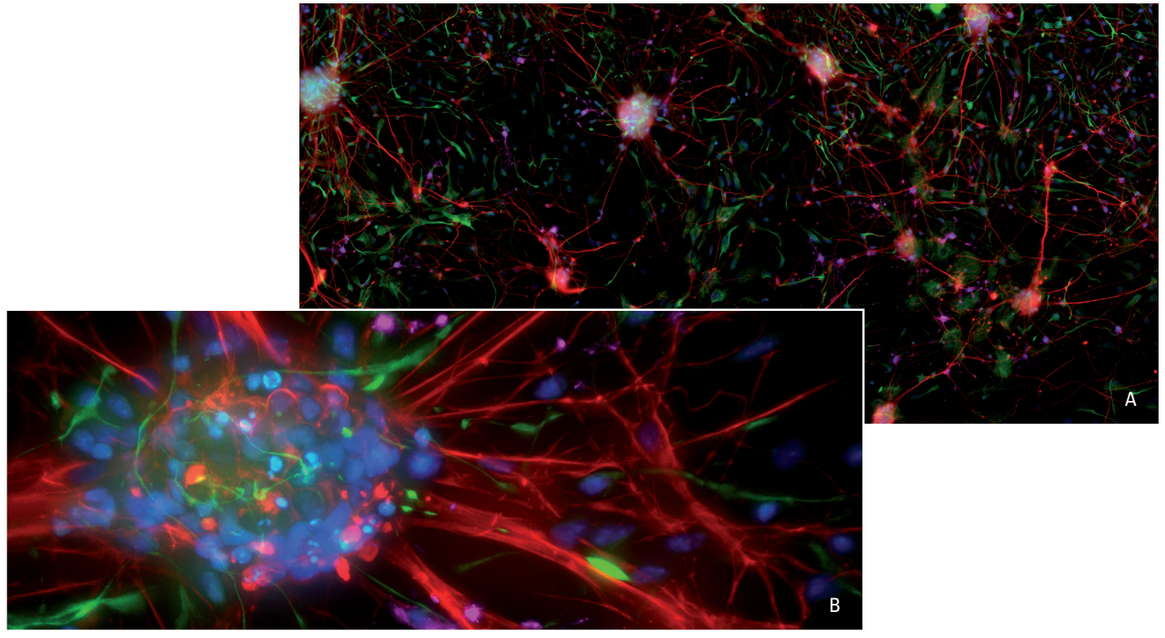
Crisp fluorescence documentation for routine experiments

Leica DFC3000 G – Crisp Fluorescence Documentation for Routine Experiments

The Leica DFC3000 G grayscale camera precisely meets the requirements of daily fluorescence microscopy. With a high-sensitivity, high-quality Sony® CCD sensor even weak fluorescence signals can be professionally documented. Leica's unique passive cooling architecture in combination with smart imaging tools ensures excellent quality fluorescence imaging at an affordable price.

IMPRESSIVE IMAGING CAPABILITY

Equipped with a dedicated fluorescence CCD sensor, the Leica DFC3000 G camera provides outstanding imaging quality even under demanding low light conditions. First and foremost designed for daily routine fluorescence documentation, the camera provides advanced features such as image averaging, dynamic hot pixel correction, and external trigger capability. The camera features Leica's unique passive cooling system with pixel double sampling and enhanced temperature convection – without any compromise on speed of acquisition and power consumption. You'll experience a brilliant fluorescence signal that you wouldn't expect from such a compact system.

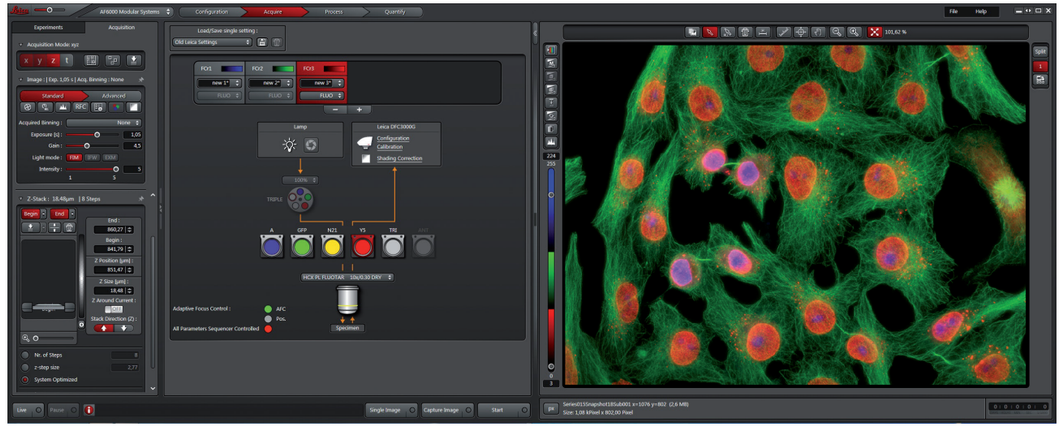


A: Cultured cortical neuronal cells (mouse). Blue, DAPI, nuclei; green, anti-Nestin-Cy2, Astrocytes; red, beta-III-tubulin-Cy5, mature neurons; purple, NG2-Cy3, immature neurons. Image acquisition was performed using a Leica DFC3000 G digital camera acquiring 7x6 tiles and afterward stitched together using Leica Application Suite Advanced Fluorescence (LAS AF) software.

B: Higher magnification of cultured cortical neuronal cells (mouse). Stained as above.

AFFORDABLE FLUORESCENCE SYSTEMS

Leica DFC3000 G fits perfectly on all widefield and stereo microscopes. With a standard c-mount thread the camera easily connects to virtually any stand. The Leica DM IL LED manual inverted microscope combined with the camera, for example, creates an affordable fluorescence package for cell transfection studies. Leica's tailor made fluorescence systems fit every budget.



SCALABLE SOFTWARE SOLUTIONS

Leica DFC3000 G is shipped with our standard acquisition and analysis software package Leica Application Suite (LAS) for basic documentation and measurement. The camera is also seamlessly integrated in LAS AF for more sophisticated fluorescence applications such as multidimensional image acquisition. Both software packages can be upgraded with additional application modules any time later if your requirements grow.

Leica DFC3000 G Technical Data

Camera type	Digital monochrome, high-sensitivity, passive-cooled camera for fluorescence microscopy		
Housing	Aluminum, Size (L × W × H) 112 mm × 74 mm × 64 mm, Weight 320 g		
Sensor			
CCD sensor	Sony ICX445® interline transfer CCD sensor with EXview HAD technology		
Pixel	1296 x 966 (~ 1.3 MP); 3.75 µm × 3.75 µm pixel size		
Exposure time	7 µsec – 5 sec *		
Bit depth	8 bit / 12 bit / 16 bit		
Binning	2x2; 3x3		
Partial scan	Freely definable ROI (region of interest), combination with binning possible		
Dark noise	8 electrons typical (25 MHz)		
Dynamic range	~ 59 dB (25 MHz)		
Pixel clocking rate	25 MHz/ 50 MHz		
Analog gain	1× – 10×		
Advanced features	Image averaging, sharpening, on head image buffer and external trigger capability		
Image formats	**Pixel**	**Pixel Clock MHz**	**fps***
Full frame	1296 x 966	50 25	31 15
2x2 binning	648 x 483	50 25	54 26
3x3 binning	464 x 346	50 25	72 35
Supported operating systems	Leica LAS, Leica LAS AF, SDK available on request		
C-mount	0.35 x or 0.55 x		
Data and power	USB 3.0 single cable		
Power supply	12 V via computer		
Power consumption	~3 W		
Operating temperature range	+5°C .. +50°C		
Air humidity	Max 80%, non-condensing		

* depends on software platform. Illustrations, descriptions and technical data are not binding and may be changed without notice.

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