

151203

Time-lapse 1

Room: E1037

Inverted motorized microscope (Leica DM IRE 2) dedicated to Bright Field, Phase Contrast, Differential Interferential Contrast (DIC) and Fluorescence imaging of living or fixed samples. Equipped with a Photometrics CoolSnap HQ Monochrome camera.

Illumination	Wavelength range (nm)	Contrast methods
Arc lamp 120W	UV - IR	Fluorescence
Halogen lamp 100W	White	Bright field, Phase contrast, Dark field

Fluorescence cubes : small	Excitation (nm)	Beam-splitter (nm)	Emission (nm)	Application
A4	BP 360/40	400	BP 470/40	DAPI, Hoechst
L5	BP 480/40	505	BP 527/30	FITC, Alexa488, GFP
Y3	BP 545/40	565	BP 610/75	Cy3, Alexa555
On demand :	See : LeicaCubes_oldModel(small).docx			
A	BP 360/20	400	LP 425	DAPI, Hoechst
B/G/R	BP 420/30 BP 495/15 BP 570/20	415 510 590	BP 465/20 BP 530/30 BP 640/40	DAPI or AMCA FITC and Texas Red
BFP/GFP	BP 385/15 BP 485/20	420 510	BP 460/20 BP 437/45	BFP and GFP
CFP	BP 436/20	455	BP 480/40	CFP
CFP/YFP	BP 436/12 BP 500/20	445 515	BP 467/37 BP 545/45	CFP and YFP
CFP/YFP/DsRed Not in Leica data base	BP 436/12 BP 500/20	445 515	BP 467/37 BP 545/45	CFP YFP and DsRed
GFP	BP 470/40	500	BP 525/50	GFP
YFP	BP 500/20	515	BP 535/30	YFP
Red GFP	Not available	Not available	Not available	RFP, DsRed
Ds Red (ET)	BP 546/11	560	BP 605/75	DsRed, Ethidium bromide, Propidium iodide
N2.1	BP 515 - 560	580	LP 590	Alexa594, TRITC, Rhodamin B
TX2	BP 560/40	595	BP 645/75	Alexa 568, Alexa 894, Texas Red
Y5	BP 620/60	660	BP 700/75	Cy5
I3	BP 450 - 490	510	LP 515	FITC, GFP, Alexa 488, ...

Default objectives	Magnification	Numerical Aperture	Working Distance (mm)	Immersi on Medium	Coverslip

N PLAN 5x/0.11 PH0	5x	0.11	14	Air	-
HC PLAN APO 10x/0.40 PH1	10x	0.40	2.2	Air	-
PL FLUOTAR 16x/0.50 IMM	16x	0.50	NA	Imm	-
HCX PL APO 40x/1.25-0.75 OIL CS	40x	1.25-0.75	0.1	Oil	0.17
HCX PL APO 63x/1.40 OIL CS PH3	63x	1.40	0.10	Oil	0.17
HCX PL APO 100x/1.40-0.70 OIL CS	100x	1.40	0.09	Oil	0.17
Special needs :	Contact us				

Microscope built-in additional magnifier-reducer	1.5x
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Default additional magnifier - reducer	1x
On demand :	0.5x (0.33x, 0.63x ... disparus)

Zoom	None
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Default Camera	CoolSNAP HQ (Photometrics)
Digitizer	12-bit
Resolution	1392 x 1040 pixels
Pixel size	6.45 x 6.45 μ m
Wavelength-range with Quantum Efficiency > 50%	400-680 nm
Wavelength-range with Quantum Efficiency > 15%	330-870 nm
Image type	16-bit Gray-level

Sample holder	35mm Petri dishes, Labtek
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Environmental control	Humidity	Temperature	CO ²
Range	H ² O saturated atmosphere (at Room T°C)	ambient to 60°C	0 to 10%

Acquisition Software	Controlled hardware	Binning
Metamorph 7.7.5	Photometrics camera, Filter-cube wheel, Leica shutter, Uniblitz fast shutter (fluo), Detection-port switcher, Transmitted-light lamp voltage, Z-motor, XY-stage (Merzhaeuser).	2, 3, 4, 8

Visualization, analysis and processing softwares	Metamorph, ImageJ, Fiji, IrfanView
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Operating system	Windows XP (32 bit) SP3
CPU	Intel ® Core™ 2 CPU 6700 @ 2.33 GHz
RAM	2.99 GB
Graphic Card	Intel® 82945G Express Chipset Family