

Leica DMI6000 B microscope system specifications

The system is built on the XYZ motorized Leica DMI6000 B inverted microscope body for widefield brightfield/epifluorescence imaging. The microscope also features motorised objective and condenser turrets. It is equipped with the following objectives and epifluorescence filters:

Objectives

Magnification	Numerical Aperture (NA)	IMM	Working Distance (mm)	Cover glass (CG) thickness (mm)	Aberration Correction	Contrast technique
4x	0.10	DRY	13.9	0 & 0.17	HI Plan	Ph0
10X	0.25	DRY	17.7	0 & 0.17	N Plan	Ph1
20x	0.35	DRY	6.9	0 & 0.17	N Plan	Ph1
20X	0.5	DRY	1.1	0.17	Plan S-Apo	DIC
40X	0.75	DRY	0.28	0.17	Plan S-Apo	DIC
63X	1.4-0.6 (Iris)	OIL	0.14-1.2	0.17	Plan Apo	DIC

Ph – Phase Contrast, DIC – Differential Interference Contrast

Epifluorescence Filters

Filter Set	Excitation filter	Dichroic mirror	Emission filter	Example fluorophores
A	BP 340-380	FT 400	LP 425	DAPI, Hoechst
Chroma 39002	BP 480/30	FT 505	BP 535/40	AF488, eGFP, mNeonGreen
N2.1	BP 515-560	FT 580	LP 590	AF568, Cy3, mCherry
Chroma 39007	BP 620/50	FT 655	BP 690/50	AF647, Cy5, AB STAR RED

BP – Bandpass filter, FT – Farbteiler (*dichroic beamsplitter*), LP – Longpass filter

Illumination:

- Halogen lamp for brightfield transmission illumination
- Leica EL6000 mercury metal halide white light source for epifluorescence illumination

Detectors

This system is equipped with Leica DFC360 FX 1.4MP monochrome and DFC420 5MP colour CCD cameras.

Software

The system is controlled via Leica LAS X software (ver. 3.4.2) that includes LAS X Navigator.