Western
Biotron Experimental
Climate Change Research

AxioImager Z1 Upright Microscope

AxioImager Z1 Upright Microscope, Carl Zeiss Canada, North York, ON

A cornerstone in Biotron's Imaging Module is the Z1 Imager by Zeiss. This compound microscope offers users an ideal upright imaging solution with superb optics. The Z1 provides 8 channels of fluorescence (Please refer to Table), bright field, dark field, phase contrast and DIC imaging.

This fully digital Z1 allows users to design and implement complex imaging projects with repeatability and control. The software and motorized features of this instrument allow the user to create z-stacks with extended depth of focus or for 3D reconstruction, whole slide scans using Zen 2012 "stitch and tile", save multiple x-y positions, and create time lapse experiments.

AxioImager Z1 Technical Specifications

Filters available	**Excitation Wavelength:**	**Emission Wavelength:**
00-Texas Red	Excitation BP 530-585	Emission LP 615
10-FITC/Alexa 488	Excitation BP 450-490	Emission BP 515-565
15-Alexa 546*	Excitation BP 546/12	Emission LP 590
20-Rhodamine	Excitation BP 546/12	Emission BP 575-640
26-Alexa 660	Excitation BP 575-625	Emission BP 660-710
31-Alexa 568/Rhod	Excitation BP 565/30	Emission BP 620/60
38-GFP	Excitation BP 390/22	Emission BP 460/50
49-DAPI/Hoechst	Excitation BP 470/40	Emission BP 525/50
Reflector cube	Reflected light only	All

Objectives available*	**Features and Quality:**
2.5x/0.075 NA	EC Plan Neofluar
5x/0.16 NA	PH1 EC-Plan Neofluar
10x/0.3 NA	Plan NeoFluar
20x/0.5 NA	PH2,DIC EC Plan Neofluar
20x/0.5 NA (materials)*	EC Epiplan-Neofluar (Materials lens-no coverslip)
40x/0.75 NA*	PH2 DIC EC Plan Neofluar
40x/1.3 NA Oil	DIC Plan Apochromat
63x/1.4 NA Oil	DIC Plan Apochromat
100x/1.4 NA Oil*	DIC Plan Apochromat

Cameras (2)	
Colour/Brightfield:	**Colour MRC 5:** 12 acquisition modes, 5 megapixel, 1:1300 dynamic range, high sensitivity 2/3" CCD sensor, up to 16 frames/sec, 36 bit RGB, perfect colour accuracy
Fluorescent:	**Monochrome MRm (Fluorescence):** 1.4 megapixel, 1:2200 dynamic range, high sensitivity 2/3" CCD sensor, up to 48 frames/sec, 12 bit, expanded spectral range to near-IR, barrier filter-free for extremely high fluorescence sensitivity on dim samples.

*** Available by request**