Zeiss Inverted Microscope

Zeiss Axio Observer 7

Tool Type: “Inverted Microscope”
Location: “Elings Hall 2411”

Supervisor	Tool Lead
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Description: “Inverted Microscope”	
Manufacturer: “Zeiss”	

About

Inverted microscope Axio Observer 7 ACR for transmitted-light brightfield LED, phase contrast, differential interference contrast, fluorescence with Colibri 7; equipped with ACR function, Scanning Stage STEP and Docking station

Detailed Specifications

Objectives

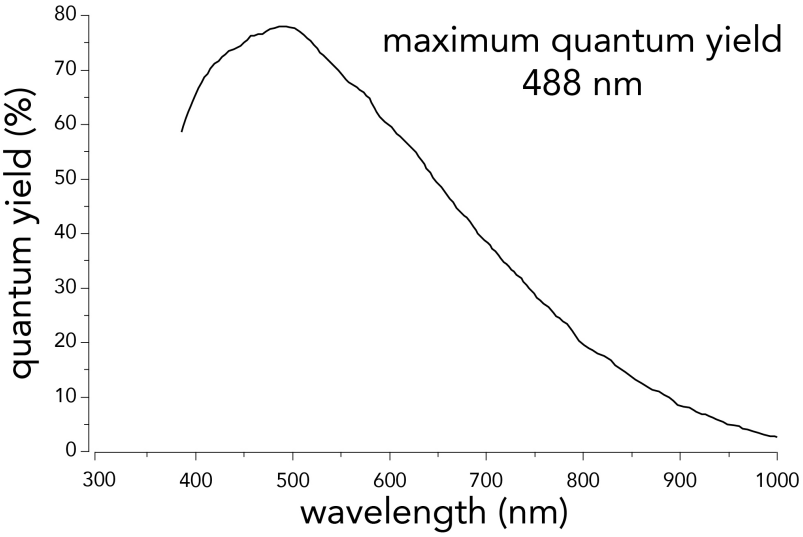
Objective	Magnification	Imm	NA	Ph	FWD	Resolution (µm/px)	Field of View (µm)
10X EC Plan-Neofluar Ph1-Air	10	AIR	0.3	1	5.2	0.586	1,125 x 713
20X Plan-Apochromat M27	20X	AIR	0.8	1	0.55	0.293	563 x 356
20X LD-Neofluar Korr Ph2 M27 Air	20X	AIR	0.4	2	7.4 – 8.4	0.293	562 x 356
40X LD Plan-Neofluar Korr Ph2 M27-Air	40X	AIR	0.6	2	3.3 – 2.5	0.1465	281 x 178
40X LD LCI Plan-Apochromat Imm Korr DIC M27 Water	40X	WATER	1.2	2	0.41	0.1465	281 x 178
63X Plan-Apochromat Oil DIC M27 Oil	63X	OIL	1.4	2	0.19	0.093	178 x 113

FWD: Free Working Distance
NA: Numerical Aperature
Imm: Immersion media
Ph: Phase contrast

Filter Sets

Position	Filter Set	Exitation (nm)	Emmision (nm)	Beamsplitter
1	38 HE GFP	BP 470/40	BP 525/50	FT 495
2	43 HE DsRED	BP 550/25	BP 605/70	FT 570
3	50 CY5	BP 640/30	BP 690/50	FT 660
4	90 HE D/G/C3	BP 385/30 BP 469/38 BP 555/30 BP 631/33	QBP 425/30 QBP 514/30 QBP 592/25 QBP 709/100	QBS 405 QBS 493 QBS 575 QBS 653
5	96 HE BFP	BP 390	BP 450	FT 420
6	POL TL			

Camera Sensitivity to different wavelengths



Filter Set Specs

Position 1 GFP pos-1-38hegfp.jpg
Position 2 DsRed

pos-2-43hedsred.jpg

Position 3 CY5

pos-3-50cy5.jpg

Position 4 DAPI FITC TRITC

pos-4-90he_d_g_c3.jpg

Position 5 96 HE

pos-5-96hebfp.jpg

Plate Layout Template

96 well plate experiment layout

96_well_plate_layout.pdf

Safety Concerns

Read the manufactures manual before first use. If the Zeiss inverted microscope acts in a way that is not described by the manual, turn off the printer and contact Zeiss.

- Never place your finger near the machine until all parts have stopped moving. Moving parts can cause serious injury
- Never clean or service the microscope while it is on
- The microscope uses UV light to excite some dyes. Never look directly at LED light nor expose skin. Serious injury may result from exposure
- Disassembling the microscope may cause an electric shock or damage to the instrument. Do not disassemble any parts of the microscope not mentioned in the instruction manual. In case of a problem with the microscope

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Operating Procedures

Well Plate Calibration

multiwellplatecalibration.pdf

96 well plate experiment

96-wellexperiment.pdf

Reference Documentation

zen_2_blue_edition_-_software_guide.pdf

Training Documentation

From:
https://bpm-wiki.cnsi.ucsb.edu/ - **NSF BioPACIFIC MIP Wiki**

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Last update: **2021/08/24 18:42**