

## **Upright Epifluorescence Microscope with Apotome (Zeiss)**

This microscope allows a three-dimensional observation of multi-labeled fixed thick samples. Optical slices can be obtained by the use of the Apotome module.

**Speciality :** Upright Widefield Apotome Zeiss - Optical Slices using structured illumination, multiposition, mosaic - Filters : DAPI, GFP, CY3, CY5, DIC

Equipments available

### **Objectives :**

Reference	Magnification	Type	Numerical aperture	Working distance (μm)	Ring color	Correspondance μm/pixel (binning 1x1)
5x/0,16 PL APO (420630-9900)	5x	dry	0.16	12100	Red	1.29
10x/0,3 DICII EC PL NEOFLUAR (420340-9901)	10x	dry	0.3	5 200	Yellow	0.645
20x/0,8 PL APO (420650-9901)	20x	dry	0.8	5 500	Green	0.3225
40x/1,3 OIL DICII PL APO (UV) VIS-IR (420762-9800)	40x	oil	1.3	210	Blue	0.161
63x/1,4 OIL DICII PL APO (420782-9900)	63x	oil	1.4	190	Purple	0.102
100x/1,4 OIL DICII PL APO (420790-9900)	100x	oil	1.4	170		0.0645

### **Filters**

Filter cube	Excitation range	Excitation filter	Dichroic mirror	Emission filter
DAPI (49)	UV	365	395	445/50

HE GFP (38)	Blue	470/40	495	525/50
DsRed (43)	Green	550/25	570	605/70
Cy5 (50)	Red	640/30	660	690/50
Alexa 488 / Alexa 594 (24)	Blue - Green	485/20-578/14	500-600	BP 515/540 - LP 610
DIC	-	-	-	-

**Camera :**

CoolSNAP HQ2

- CCD cooled to -30°C
- 1392\*1040 pixels
- pixel size : 6.45 \* 6.45 µm
- Sensor size : 8.98 \* 6.71 mm

**Contrast method :**

DIC available on 100x objective.

More informations

More information available [here](#)

A tutorial can be downloaded [here](#)

Starting and switch off the system

**Starting procedure :**

1. Switch on the Fluo lamp (switch on/off - 20 minutes to get a good stability) and the controller of the motorised stage,
2. Switch on the apotome module - (check the Apotome module is out)
3. Switch on the microscope power supply
4. Switch on the microscope (button on the left side of the microscope).

**Switch off procedure :**

4. Switch off the microscope (button on the left side of the microscope)

3. Switch off the microscope power supply
2. Switch off the apotome module - (check the Apotome module is out)
1. Switch off the controller of the morised stage and the Fluo lamp - switch on/off - (provide 20 minutes between switch on and off the lamp)

The computer can be left on if needed.

#### Acknowledgment

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