

**Microscope:** Olympus IX-83 Inverted Epifluorescent Microscope  
**Camera:** Hamamatsu ORCA-Flash Digital CMOS camera  
**Software:** CellSens Dimension imaging software.

<b>Filter Cube</b>	<b>Cat No.</b>	<b>Wavelength</b>	<b>Excitation</b>	<b>Emission</b>	<b>Stains</b>
ET-EGFP/ FITC/CY2	49002-BX3	Narrow Blue	470/40X	525/50M	AO, FITC, SYBR Green/ Alexa 488, Ca+, Immunoassays
ET-CY3/ TRITC	49004-BX3	Narrow Green	545/25X	605/70M	Autofluorescence; Lipofusion, FRET, Tyramide, Propidium iodide
UV WIDE	U-FUW	Ultra Violet	340-390/ 420/420LP		DAPI; Oxidative Damage
Superwide Blue	U-MSWB2	Super Wide Blue	EX420-80	EM515	ELF; Plankton Pigments
ET-CY5	41008 HQ	Near Infrared	620/60	700/75	Alexa 647; Apoptosis; Immunoassays

*Table 1: Filter Cubes associated with the Olympus IX-83 epifluorescent microscope including the Catalogue number, wavelength of light including excitation and emission in nm and the relevant stains.*

<b>Objective</b>	<b>Objective – Ful Name</b>	<b>Catalogue Number</b>
10x	U PLAN FL 10X PHASE OBJECTIVE	UPLFLN10X2PH
20x	LWD U PLAN FL 20X PHI OBJECTIVE	LUCPLFLN20XPH
40x	LWD U PLAN FL 40X PH2 OBJECTIVE	LUCPLFLN40XPH
40x	U PLAN FLUORITE 40X PH2 OBJECTIVE	UPLFLN40XPH
60x Oil	U PLAN S-APO 60X OIL OBJECTIVE	UPLSAPO60XXO
100x Oil	U PLAN S-APO 100X OIL OBJECTIVE	UPLSAPO100XO

*Table 2: Microscope objectives with the Olympus full name and Olympus catalogue numbers. The eyepiece and image areas are calculated through the software. No calibration required.*