

Cell-IQ

Imaging settings

- for phase contrast, binning is usually not needed. Exposure time should be about 10-20ms.

Light source

- green LED for phase contrast
- 465 nm LED for GFP
- 535 nm LED for Cy3
- 445 nm LED for CFP

Fluorescence excitation light system by CoolLed

Fluorescence filter cubes

GFP-A-Basic

- Excitation transmission band: average transmission > 90% 451.5 - 486.5 nm
- Emission transmission band: average transmission > 90% 505.5 - 544.5 nm

Cy3-4040B (from [semrockcatalog2009.pdf](#))

- Excitation 531 nm, > 93% over 40 nm
- Emission 593 nm, > 93% over 40 nm

CFP-A-Basic

- Excitation transmission band: average transmission > 90% 425.5 - 442.5 nm
- Emission transmission band: average transmission > 90% 459 - 499 nm

You can check fluorophore compatibility on the Semrock website, see the the links above, tab "Fluorophore". For Cy3-4040B you can check the updated set [Cy3-4040C](#).

Objective

Fluorescence Cell-IQ:Nikon Plan Fluor 10x/0.30 Ph1 DL
Phase contrast Cell-IQ:Nikon

Camera

Camera: Qimaging Retiga EXi
Pixel number (W x H): 1392 x 1040
Pixel size: 6.45 x 6.45 um.
11 frames/s with full resolution
Cooled 25 degrees below the ambient temperature
High 63% QE sensitivity with low 8e

read noise and 0.15e-/pix/s dark current.
Objective: Nikon Plan Fluor 10x/0.30 Ph1 DL
Image resolution: (About) 0.700 um/pixel, 995 x 745 um field of view. (Calibrated for each system)

Software

Imaging: Cell-IQ Imagen 4.1.0, [Imagen_manual_4.0.0.pdf](#)

Analysis: Cell-IQ Analyser 4.4.0, [Analyser_4-4-0_help.pdf](#)