

Yokogawa CQ1

The Yokogawa CQ1 is a confocal quantitative image cytometer that enables clear 3D imaging, object recognition, and rapid quantification of live cells and cells clusters.

It has a multi-beam scan by “Microlens enhanced dual Nipkow disk confocal” that can achieve high-throughput 2D/ 3D imaging with minimum damage to sample, maximal performance objective lens (super apochromat), and the widest field/ highest-resolution sCMOS camera achieve high-throughput measurements of submicron sample. It also has light sources for phase contrast and bright field imaging too.

The fast time lapse function can capture up to 100 images per second (100 fps). It is installed with Yokogawa's proprietary technology CSU, which is cell-friendly with low photobleaching and low phototoxicity.

Features:

Incubation	Live cell imaging chamber with CO ₂ , humidity and temperature control
Imaging Modes	Spinning disk confocal and Phase contrast illumination
Stage	Motorized XY stage
Scan Resolution	1024 x 1024 pixels and 4096 x 4096 pixels
Detector	ORCA-Flash 4.0 V3

Objective lenses:

Magnification	Immersion	Type	Numerical Aperture	Working Distance (mm)
2X	Air	PlanApo	0.08	6.2
4X	Air	ExtendedPlanApo	0.16	13
10X	Air	ExtendedPlanApo	0.40	0.4
20x	Air	ExtendedPlanApo	0.80	0.8
20x Phase	Air	LUCPLFLN	0.45	0.45
40x	Air	ExtendedPlanApo	0.95	0.18

Laser module:

Description	Excitation (nm)	Laser
DAPI	405	Solid state laser
FITC	488	Solid state laser
TRIC	561	Solid state laser
Cy5	640	Solid state laser

Software:

CellPathFinder