

Designing multicolor experiments for your iQue Screener, iQue Screener PLUS or iQue Screener HD is as easy as 1, 2, 3!

As part of the integrated iQue® Screener platform, IntelliCyt offers a suite of cell and bead-based reagents and kits optimized for screening and profiling applications that take advantage of the high speed, flexible content options, and microvolume capabilities we call the IntelliCyt Advantage. MultiCyt® cellular assay reagents, for 96- and 384-well plates, can monitor a variety of endpoints including proliferation, membrane integrity, apoptosis and genotoxicity for multiplexed cell health screens. The dyes have been

carefully selected to provide excellent results and use no-wash protocols for robust, mix and read, low-volume 384-well screening.

MultiCyt® QBeads, the affordable and flexible multiplexing solution for quantifying secreted proteins are designed to take advantage of the microvolume assay capability and speed of the iQue® Screener and iQue Screener PLUS, to provide a true screening solution for a variety of human, mouse or rat cytokines, chemokines, enzymes and growth factors.

1 Know your instrument

- What is the number and type of lasers available?
- What detector/filter combinations are available to capture the signal?

This determines what labeling and detection reagents are possible to use on your system and how they will perform.

2 Know your labeling & detection reagents

- What laser wavelength excites them?
- What is the emission spectra?
- Will there be a lot of spillover between adjacent channels?
- How bright are they? What is their stain index?
- Beware that tandems and other dyes can degrade when exposed to light, temperature changes, or fixation.

This information will allow you to determine which fluorochrome will be best matched to which antigen or marker of interest.

3 Know your biology

- Reserve the brightest fluorochromes for the lowest expressed antigens and vice versa.
- Avoid spillover of highly expressed antigens into detectors requiring high sensitivity.

Now you have enough information to begin to answer your experimental questions by optimizing fluorochromes and dyes for your biology on your instrument.

Laser	iQue Screener PLUS		IntelliCyt Reagents
	Detector/Filter	Detector/Filter	
Blue Laser	BL1 530/30	FL1	MultiCyt Reagents Proliferation Membrane Integrity Caspase 3/7 Micronucleus Assay
	BL2 572/28	FL2	MultiCyt Reagents Annexin V Micronucleus Assay QBeads Reagents PlexScreen
	BL3 615/24		iQue Screener PLUS Scientist's Choice Add additional markers for higher content and deeper insight into the biology in question
	BL4 675/30		
	BL5 780/60	FL3	MultiCyt Reagents Membrane Integrity Cell Cycle QBeads Reagents PlexScreen DevScreen SH DevScreen SAV
Red Laser	RL1 675/30	FL4	MultiCyt Reagents Micronucleus Assay
	RL2 780/60	FL4	MultiCyt Reagents Proliferation Cell Cycle Membrane Integrity Mitochondrial Depolarization Cell Encoder Dye QBeads Reagents PlexScreen DevScreen SH DevScreen SAV
Violet Laser	VL1 445/45	NA	iQue Screener PLUS Scientist's Choice Add additional markers for higher content and deeper insight into the biology in question
	VL2 530/30	NA	
	VL3 585/40	NA	
	VL4 615/24	NA	
	VL5 675/30	NA	
	VL6 780/60	NA	

Fluorochrome Selection for iQue Screener PLUS

Laser Excitation	Detector	iQue PLUS Fluorescence Detectors/Filters	Fluorochromes	Viability	Proliferation & Function	Fluorescent Proteins	DNA
Violet 405 nm	VL1	445/45	BV 421 eFluor® 450 Pacific Blue Horizon V450 Vio®Blue AlexaFluor® 405	Zombie Violet Calcein Violet SYTOX® Blue FVD eFluor 450, LIVE/DEAD® Fixable Violet DAPI	CellTrace Violet Click-it Plus Edu- Pacific Blue	Azurite Cerulean eBFP eCFP m Turquoise Sirius	DAPI FxCycle Violet Vibrant® DyeCycle Violet
	VL2	530/30	Pacific Green BV510 Krome Orange Horizon V500	LIVE/DEAD® Fixable Aqua		vGFP	
	VL3	572/28	BV 570 Qdot 605				
	VL4	615/24	BV605 eFluor 605NC Qdot 625	LIVE/DEAD® Fixable Yellow			
	VL5	675/30	BV650 Qdot 655				
	VL6	780/60	BV785				
Blue 488 nm	BL1	530/30	BB515 FITC Alexa Fluor® 488 VioBright FITC	Calcein AM CFSE LIVE/DEAD® Fixable Green Zombie Green	CellTrace CFSE Click-iT® Plus Edu-Alexa Fluor® 488 MultiCyt® Proliferation FL1 MultiCyt Membrane Integrity FL1	eGFP eYFP Emerald	Vybrant DyeCycle Green
	BL2	572/28	PE Horizon PE-CF594 PE Dazzle 594	PI LIVE/DEAD® Fixable Red	SYTOX Orange	eYFP mCitrine Venus	PI Vybrant DyeCycle Orange
	BL3	615/24	ECD PE-CF594 PE-Texas Red				
	BL4	675/30	PerCP PE-Alexa Fluor 700 PE-Cy5 PerCP-Cy5.5 PerCP-Vio700	7AAD	MultiCyt Membrane Integrity FL3		
	BL5	780/60	PC7 PE-Cy7 PE-Vio 770 VioGreen Qdot 800				Vybrant DyeCycle Ruby FxCycle Far Red
Red 640 nm	RL1	675/30	APC Alexa Fluor® 680 Qdot 655	FVD eFluor 660 LIVE/DEAD® Fixable Far Red	MultiCyt Proliferation FL4 MultiCyt Membrane Integrity FL4		DRAQ5
	RL2	780/60	APC-Alexa Fluor® 750 APC-Cy7 APC-Vio770	FVD eFluor 780 LIVE/DEAD® Fixable Near IR			

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