

## 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	iQue Screener	MultiCyt Reagents
	Detector/ Filter	Detector/ Filter	
Blue (488)	BL1 530/30	FL1	Proliferation Membrane Integrity Caspase 3/7 Micronucleus Induction Cell Encoder
	BL2 572/28	FL2	Annexin V Micronucleus Assay QBeads PlexScreen
	BL3 615/24	–	<b>iQue Screener PLUS</b> Scientist's Choice
	BL4 675/30	FL3	Membrane Integrity Cell Cycle
	BL5 780/60	–	<b>iQue Screener PLUS</b> Scientist's Choice
Red (633)	RL1 675/30	FL4	Membrane Integrity Proliferation Mitochondrial Membrane Potential Cell Encoder QBeads (all)
	RL2 780/60	FL3 (SDS)	QBeads PlexScreen QBeads DevScreen SH
Violet (405)	VL1 445/45	–	<b>iQue Screener PLUS</b> Scientist's Choice
	VL2 530/30	–	
	VL3 585/40	–	
	VL4 615/24	–	
	VL5 675/30	–	
	VL6 780/60	–	

## 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 Vybrant® 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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