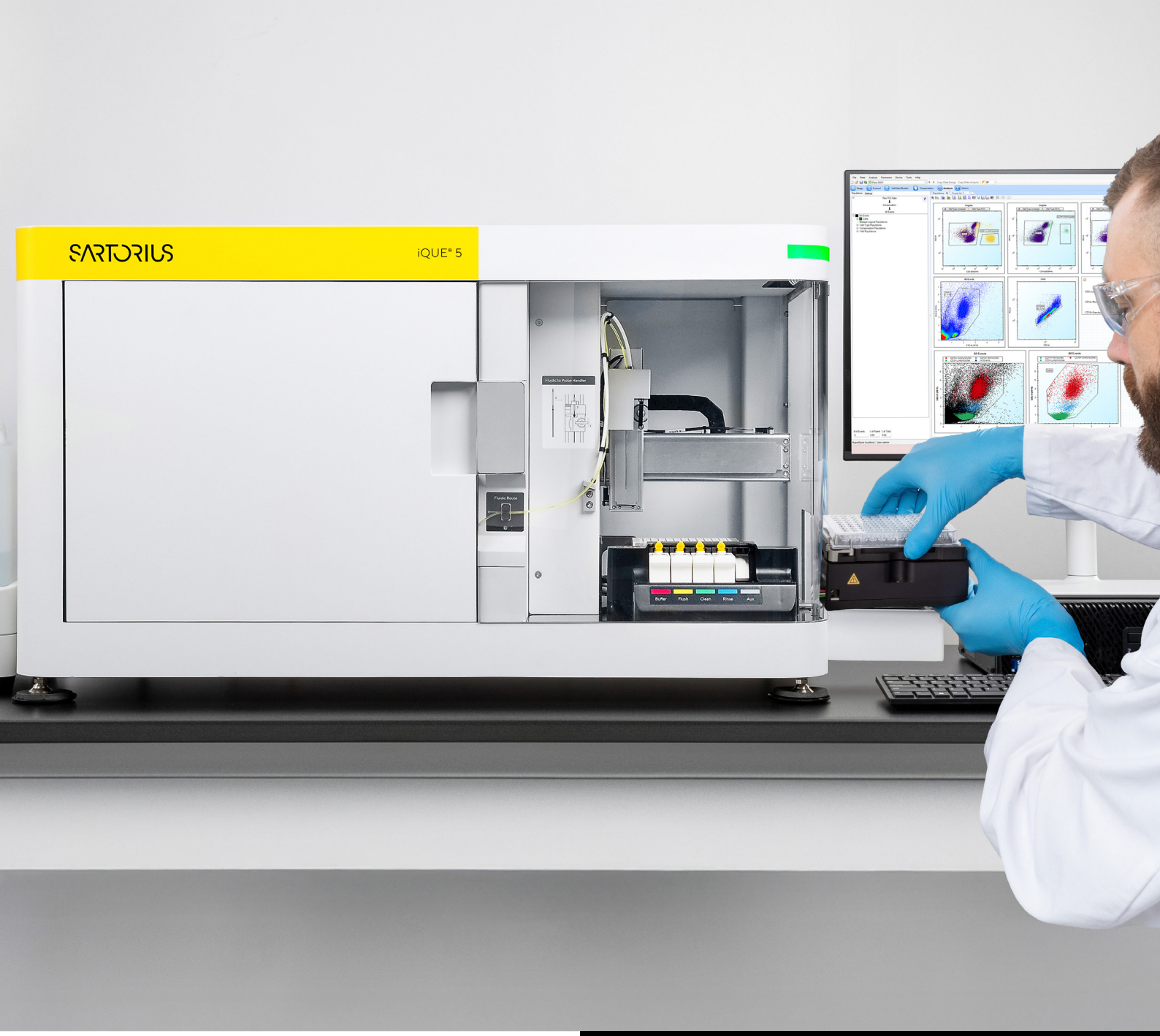



# iQue® 5 High-Throughput Screening (HTS) by Cytometry Fluorochrome Chart

Simplifying Progress

SARTORIUS

# Revealing Insight with Multiplexed Panels

Selecting the most appropriate fluorochromes for multiplexing markers of cell phenotype and function in a single well is critical to clearly resolve complex cellular research questions to support the efficient characterize of disease state.

## Designing Multicolor Experiments is as Easy as 1, 2, 3:

**1.**

**Know Your Instrument**

- What are 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 Detection Reagents**

- What laser wavelength excites them?
- What is the emission spectra?
- Does spillover exist 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.

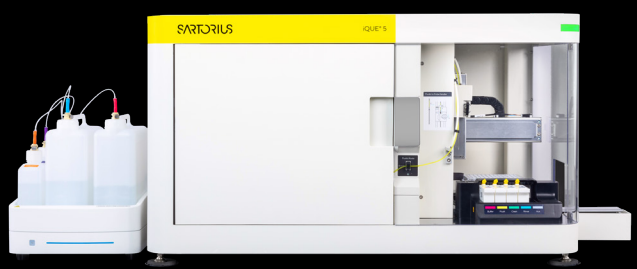
**3.**

**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.

This is made easier with the use of a panel builder such as the iQue® Cytometry Panel Builder (powered by EasyPanel) which is powered by intelligent algorithms that consider your instrument configuration, antigen expression levels, co-expression profiles, fluorochrome brightness, and spillover spread matrix to rapidly configure panels.




**Find out more**
www.sartorius.com

# iQue® 5 HTS Platform

**iQue® and Incucyte® reagents are indicated in bold**

| Laser | Detector/ Filter | Channels | Fluorochromes | Fluorescent Proteins | Viability | Cell Signalling: Proliferation, Function, and Apoptosis | DNA and Cell Cycle | Incucyte® Reagents |
|---|---|---|---|---|---|---|---|---|
| Violet 405mm | 445/45 | V445 | BD Horizon™ BV421<br>Pacific Blue<br>Alexa Fluor™ 405 | eBFP<br>Azurite<br>Cerulean | **iQue® Cell Membrane Integrity (V \| Blue) Dye**<br>Calcein Violet<br>LIVE \| DEAD® Fixable Violet<br>DAPI | **iQue® Cell Proliferation and Encoding V \| Blue (Tag-it Violet™) Dye**<br>CellTrace® Violet<br>Click-iT Plus EdUPacific Blue<br>PolyAn Blue Multiplex Beads | DAPI<br>FXCycle® Violet<br>Vybrant® DyeCycle Violet | |
| | 525/45 | V525 | Pacific Green™<br>Horizon BV510<br>VioGreen® | eGFP | LIVE \| DEAD® Fixable Aqua | | | |
| | 586/20 | V586 | BD Horizon™ BV570<br>Pacific Orange | | LIVE \| DEAD® Fixable Yellow | | | |
| | 615/20 | V615 | BD Horizon™ BV605<br>Qdot™ 605 | | | | | |
| | 667/30 | V667 | BD Horizon™ BV650<br>Qdot™ 655 | | | | | |
| | 695/40 | V695 | Qdot™ 705<br>NovaFluor Violet 690 | | | | | |
| | 725/40 | V725 | BD Horizon™ BV711<br>Qdot™ 705<br>NovaFluor Violet 745 | | | | | |
| | 780/60 | V780 | BD Horizon™ BV785<br>Qdot™ 800<br>NovaFluor Violet 800 | | | | | |
| Blue 488mm | 525/45 | B525 | FITC<br>Alexa Fluor® 488<br>BD Horizon™ BB515<br>Spark PLUS B550™ | eGFP<br>Emerald<br>mNeon Green | **iQue® Cell Membrane Integrity (B \| Green) Dye**<br>Calcein AM<br>LIVE \| DEAD® Fixable Green<br>Zombie Green | **iQue® Cell Proliferation and Encoding (B \| Green) Dye**<br>**iQue® Human Caspase 3 \| 7 Reagent**<br>**iQue Qbeads® Devscreen QSav Green** | Vybrant® DyeCycle Green<br>Click-iT™ Plus EdU Alexa Fluor 488 | **Incucyte® Nuclight Green** |
| | 586/20 | B586 | PE<br>eFluor 570 | eYFP | | **iQue® Human Annexin V Kit**<br>**iQue Qbeads® Plexscreen (detection)** | | |
| | 615/20 | B615 | BD Horizon™ PE-CF594<br>PE \| Dazzle® 594<br>PE-Texas Red<br>PE-Alexa Fluor 610 | | PI | | PI | |
| | 667/30 | B667 | PerCP-Cy5<br>PE-Cy5<br>eFluor PE-Alexa Fluor 647 | | | **iQue® Cell Membrane Integrity (B \| Red) Dye** | **iQue® Cell Cycle Kit** | |
| | 695/40 | B695 | PerCp-Vio700<br>PerCP-Cy5.5<br>PE-Cy5.5 | | 7AAD | | | |
| | 725/40 | B725 | PerCP-eFluor710 | | | | | |
| | 780/60 | B780 | PE-Cy7<br>PE-Vio770 | | | | | |

# iQue® 5 HTS Platform

**iQue® and Incucyte® reagents are indicated in bold**

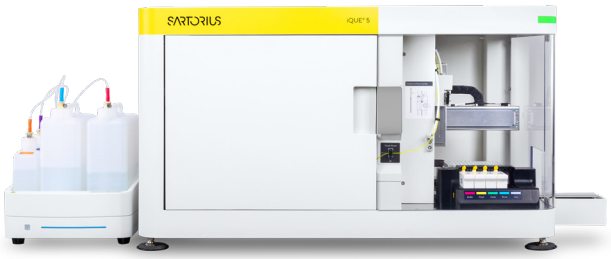
| Laser | Detector/ Filter | Channels | Fluorochromes | Fluorescent Proteins | Viability | Cell Signalling: Proliferation, Function, and Apoptosis | DNA and Cell Cycle | Incucyte® Reagents |
|---|---|---|---|---|---|---|---|---|
| Yellow* 561mm | 586/20 | Y586 | PE<br>Alexa Fluor® 546 | mStrawberry<br>tdTomato<br>AsRed 2<br>mRFP | CellROX® Orange | **iQue® Human Annexin V Kit**<br>CellTrace Calcein Red-Orange AM | Vybrant® DyeCycle Orange<br>Click-iT™ Plus EdU Alexa Fluor 594 | **Incucyte® Nuclight Orange**<br>**Incucyte® Human Fabfluor-pH Orange Dye** |
| | 615/20 | Y615 | Horizon PE-CF594<br>PE \| Dazzle 594<br>PE-Texas Red<br>PE-Alexa Fluor™ 610 | mCherry<br>HcRed<br>mRuby<br>mStrawberry | PI<br>LIVE \| DEAD® Fixable Red | Cell Tracker Orange<br>Cell Tracker Red | | **Incucyte® Nuclight Red** |
| | 667/30 | Y667 | PE-Cy5<br>eFluor PE- Alexa Fluor 647 | mPlum | 7AAD | | Vybrant® DyeCycle Ruby | |
| | 695/40 | Y695 | PE-Cy5.5 | | | | | |
| | 725/40 | Y725 | PE-AF700 | | | | | |
| | 780/60 | Y780 | PE-Cy7<br>PE-Alexa 750<br>PE-Vio770 | | | | | |
| | 725/40 | V725 | Horizon BV711<br>Qdot 705<br>NovaFluor Violet 745 | | | | | |
| | 780/60 | V780 | Horizon BV785<br>Qdot 800<br>NovaFluor Violet 800 | | | | | |
| Red 640mm | 667/30 | R667 | APC<br>Alexa Fluor® 647<br>APC-Alexa Fluor 680 | | **iQue® Cell Membrane Integrity (R \| Red) Dye**<br>FVD eFluor 660<br>LIVE \| DEAD® Fixable Far Red | **iQue® Cell Proliferation and Encoding (R \| Red) Dye**<br>QuantumPlex™ StarFire Red beads (Bangs)<br>PolyAn Red4 Multiplex beads | Click-iT™ Plus EdU Alexa Fluor 647<br>FxCycle® Far Red | **Incucyte® Human Fabfluor-pH Red Dye** |
| | 695/40 | R695 | AF680 | | | **iQue Qbeads® Plexscreen**<br>**iQue Qbeads® Devscreen QSH, QSav**<br>Flash Red beads (Bangs) | DRAQ5 | |
| | 725/40 | R725 | AF700<br>StarBright™ Red 715 | | | | | **Incucyte® Nuclight NIR** |
| | 780/60 | R780 | APC-Alexa Fluor 750<br>APC-Fire™ 750<br>APC-Cy7<br>APC-Vio770<br>StarBright™ Red 775<br>StarBright™ Red 815 | | FVD eFluor 780<br>LIVE \| DEAD® Fixable Near IR | **iQue Qbeads® Plexscreen**<br>**iQue Qbeads® Devscreen QSH** | Vybrant® DyeCycle Ruby | |

*Yellow laser is only available on 4 laser instrument version

# One Platform. Unlimited Potential.

## Choose the Right iQue® HTS Cytometer for Your Needs

"Rapid functional screening and immune profiling"




"A no compromise upgrade with technology and usability advances for the future of HTS using flow"

"A sweet spot in functional profiling from antibodies to CAR-T"

| | iQue® 5 (VBR) | iQue® 5 (VYBR) |
|---|---|---|
| Ideal for complex immunology and CAR-T panel design, and for future-proofing end-to-end antibody discovery workflows | | |
| Lasers/Configuration | 3 (Violet-Blue-Red) | 4 (Violet-Yellow-Blue-Red) |
| Color Channels | 19 | 25 |
| SSC/FSC | Yes | |
| Photodetector | SiPM | |
| Particle Size Detection | > 0.2 µm | |
| Size/Dimensions (HxWxD) | 46 x 130 x 63 cm | |
| Sensitivity | 7.2 Decades | |
| Engine/Software | Powerful Engine / Software | |
| Clog Detection | Yes, bubble sensor traces air-gaps | |
| Plates | 96-, 384-well | |
| Extend Run-Time with Add-on | iQue® QMax Workstation for Extended Run-Time Workflow (Cat. Number BA-97146) | |
| Catalogue Number | BA-97134 | BA-97135 |

## iQue Cytometry Panel Builder

Use the dynamic, interactive panel design tool, for streamlining the creation of complex panels.

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