

**Lasers and filters at the Image Stream**

October 2020, FACS Core Facility Aarhus University

Laser	CAMERA 1						CAMERA 2					
	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8	Ch 9	Ch 10	Ch 11	Ch 12
Default + default	435-480 nm	480-560 nm	560-595 nm	595-642 nm	642-745 nm	745-780 nm	435-505 nm	505-570 nm	570-595 nm	595-642 nm	642-745 nm	745-780 nm
561 nm		480-551 nm	571-595 nm					505-551 nm	571-595 nm			
642 nm				595-625,5 nm	658-745 nm					595-625,5 nm	658-745 nm	
488 nm		495-560					435-480 nm					
488 nm+561 nm		495-551	571-595 nm					505-551 nm	571-595 nm			
Brightfield Default		Acridine orange Alexa Fluor 488 Alexa Fluor 514 Calcium Green 5-Phycocyanin (PC5) DyeCycle Green DyLight 488 FITC GFP LysoTracker Green MitoTracker Green YTO RNA select green YFP	Alexa Fluor 514 Calcium Green DsRed PE-Alexa Fluor 610 PE-Texas Red (ECD) Propidium Iodide Alexa Fluor 546 Alexa Fluor 555 Calcium Orange Dil DyLight 549 eFluor 570 LysoTracker Red MitoTracker red RFP TRITC	7AAD DsRed PE-Alexa Fluor 610 PE-Texas Red (ECD) 7AAD PE-Alexa Fluor 700 Alexa Fluor 555 Alexa Fluor 568 Alexa Fluor 594 Alexa Fluor 610 Calcium Orange Dil DyLight 594 eFluor 570 eFluor 615 LysoTracker red mCherry MitoTracker Red RFP Texas Red	PerCP PerCP-Cy5.5 PerCP-eFluor 710 7AAD PE-Alexa Fluor 700 PE-Cy5 PE-Cy5.5 Propidium Iodide Alexa Fluor 594 DRAQ5 mCherry Texas Red Alexa Fluor 610	PE-Cy7 PE-Vio770	Alexa Fluor 405 BV421 Cascade Blue *CFP DAPI DyLight 405 Alexa Fluor 450 eFluor 506 Alexa Fluor 450 Hoechst 33258 LIVE/DEAD Violet Marina Blue Pacific Blue	Alexa Fluor 430 BV 570 * Cascade Yellow *CFP eFluor 506 *Krome Orange * Lucifer Yellow * Pacific Orange Qdot 525 Qdot 545 Qdot 565	BV 570 BV 605 BV 650 eFluor 605 Qdot 605 Qdot 625	BV 605 BV 650 eFluor 650 Qdot 705 Alexa Fluor 647 Alexa Fluor 660 APC APC-Cy5.5 Cy5 Cy5.5 DRAQ5 DyLight 649 eFluor 660 eFluor 710 MitoTracker Deep Red NileBlue	BV785 Qdot800 APC-Cy7 APC-eFluor 780 APC-H7 DyLight 750	
"Bandpass"	457,5/45	520/80	577,5/35	618,5/47	693,5/103	762,5/35	470/70	537,5/65	582,5/25	618,5/47	693,5/103	762,5/35
561 nm		515,5/71	583/24					528/46	583/24			
642 nm				610/30,5	710/86,5					610/30,5	701/86,5	
488 nm		528/64,5					457,5/45					
488 nm+561 nm		528/56	583/24				457,5/45	528/46	583/24			

The numbers just below the table corresponds to bandpass filter values to be used in a spectreviewer

Excitation lasers: 405 nm laser 488 nm laser 561 nm laser 642 nm laser      Darkfield (SSC) Laser: 785 laser

488 nm and 561 nm lasers are co-linear  
405 nm and 642 nm lasers are co-linear

When ever you turn on a laser, a NOTCH filter will be applied. This will affect the area of light being detected in some channels; If you turn on the 561 nm laser, chanel 3 will change from detecting 560-596nm light to 571-595 nm  
Underlined fluorochromes can be detected in more than one channel. \* marks the best channel to use with the standard "bandpass".  
If turning on a laser affects the band width, it may also change the best chanal to detect in. Check in a spectreviewer!

Fluorochromes marked by \* have a broad emmission peak, which will may affect neighbouring channels.