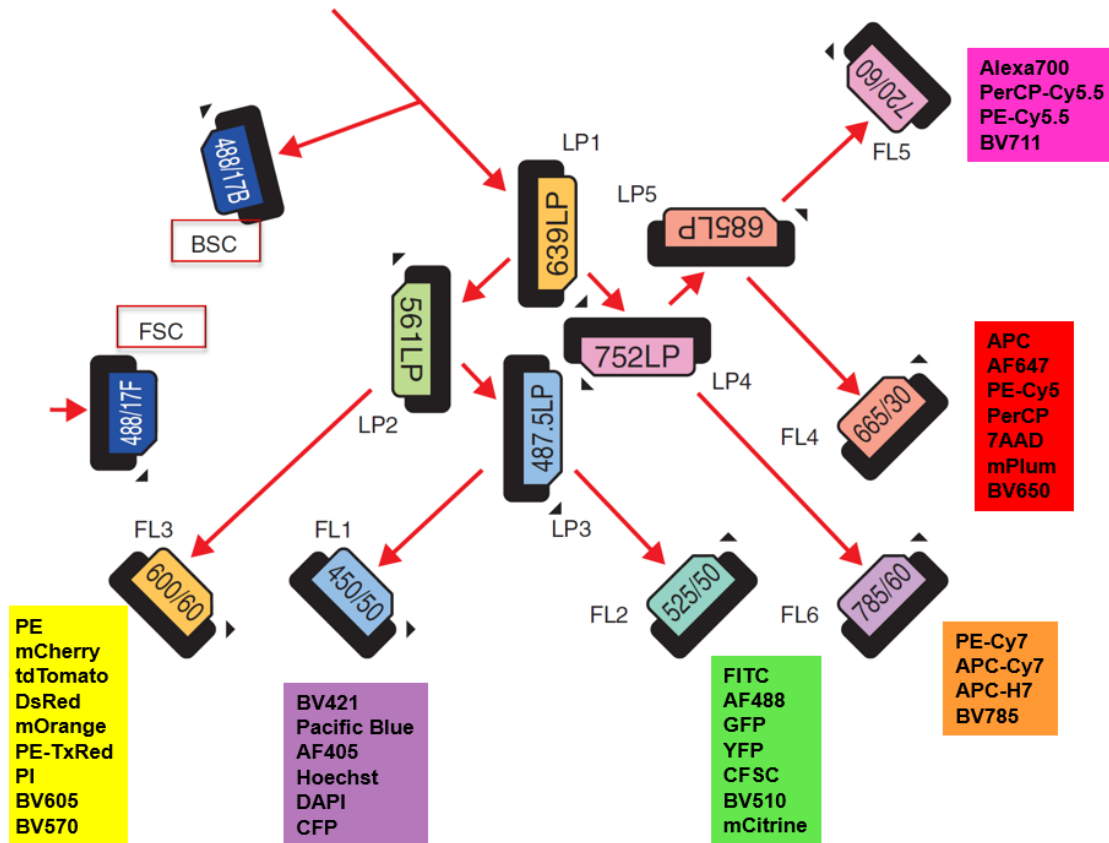
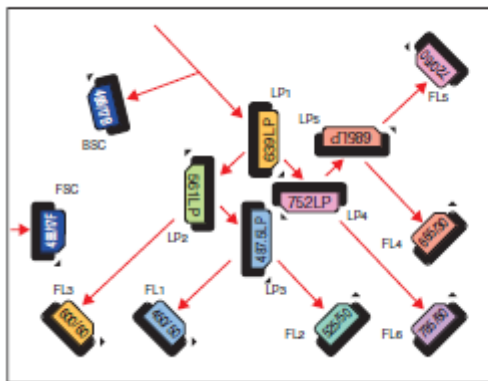


## Standard filter configuration for 4-laser Sony SH800SFP (405 nm Violet, 488 nm Blue, 561 nm Yellow/Green, and 638 nm Red Lasers):



Examples of fluorochrome choices for each PMT detector (FL1 – FL6). 6 colors + FSC & BSC (SSC) can be detected simultaneously. The use of co-linear lasers will provide lot of flexibility with fluorochrome choices.

SH800 filter setup inside the instrument (4 laser system, optical filter pattern 2):

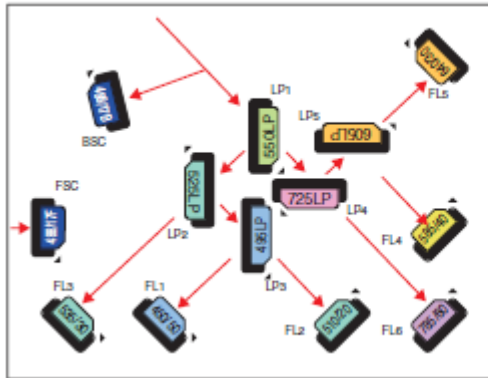


Optical filter label	Installed optical filter
LP1	639LP
LP2	561LP
LP3	487.5LP
LP4	752LP
LP5	685LP
FL1	450/50
FL2	525/50
FL3	600/60
FL4	665/30
FL5	720/60
FL6	785/60
FSC	488/17F
BSC	488/17B

**Listing of example fluorochromes that can be detected with the 4-laser (blue-red-violet-yellow/green) Sony SH800 Cell Sorter (Fluorescence Detectors FL1-FL6):**

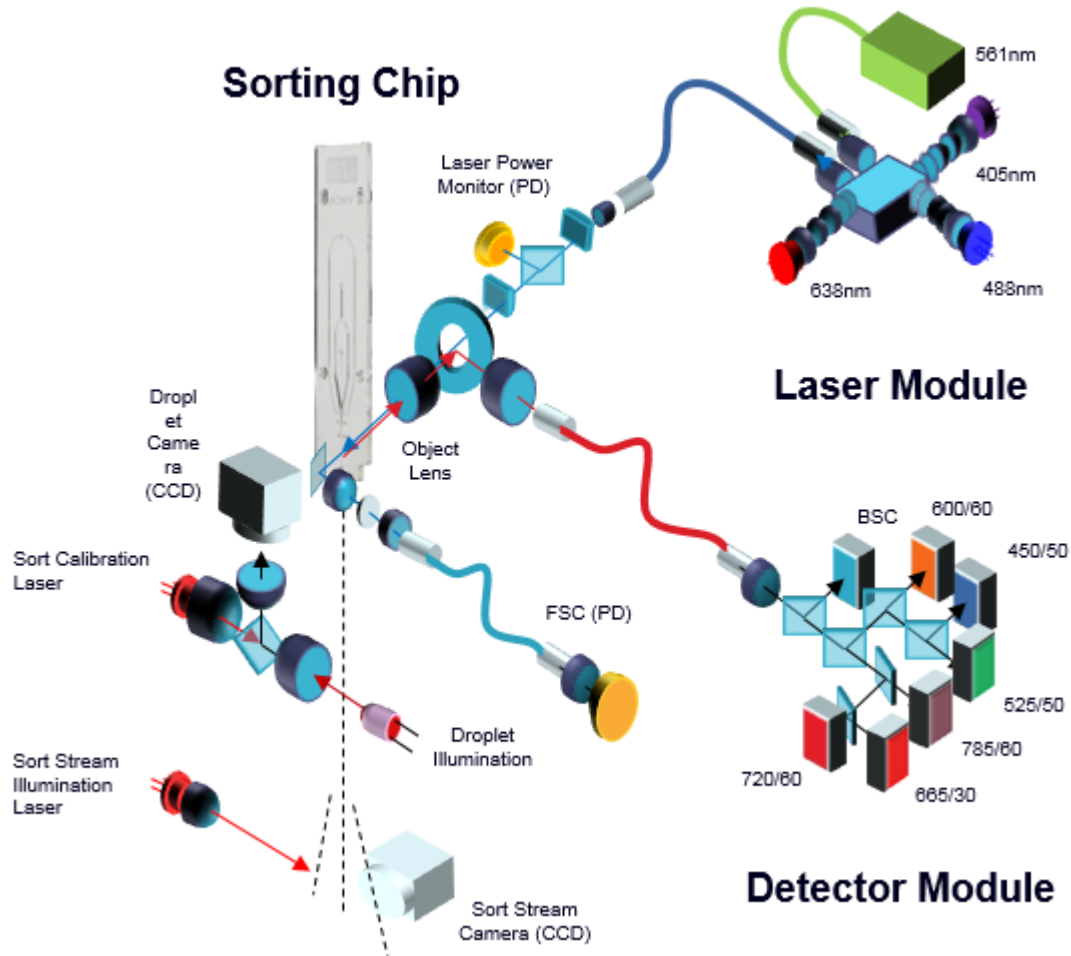
Excitation laser	Fluorochrome		Channel (optical filter)
	Name	Peak emission wavelength (nm)	
405 nm laser	Brilliant Violet 421	421	FL1 (450/50)
	Alexa Fluor 405	421	FL1 (450/50)
	DAPI	455	FL1 (450/50)
	Pacific Blue	455	FL1 (450/50)
	mCFP	475	FL1 (450/50)
	Hoechst 33342	483	FL1 (450/50)
	AmCyan1	491	FL2 (525/50)
	T-Sapphire	511	FL2 (525/50)
	Qdot 525	525	FL2 (525/50)
	Qdot 545	545	FL2 (525/50)
	Pacific Orange	551	FL2 (525/50)
	Brilliant Violet 570	570	FL3 (600/60)
	Qdot 585	588	FL3 (600/60)
	Qdot 605	603	FL3 (600/60)
	Qdot 655	654	FL4 (665/30)
	Qdot 705	705	FL5 (720/60)
Qdot 800	800	FL6 (785/60)	
488 nm laser	EGFP (Enhanced GFP)	508	FL2 (525/50)
	CFSE (Carboxyfluorescein Succinimidyl ester)	517	FL2 (525/50)
	FITC	518	FL2 (525/50)
	Alexa Fluor 488	519	FL2 (525/50)
	EYFP (Enhanced YFP)	527	FL2 (525/50)
	mCitrine	529	FL2 (525/50)
	PE (R-Phycoerythrin)	576	FL3 (600/60)
	PE-Texas Red	615	FL3 (600/60)
	PI (Propidium Iodide)	617	FL3 (600/60)
	7-AAD (7-Aminoactinomycin D)	647	FL4 (665/30)
	PE-Cy5	670	FL4 (665/30)
	PerCP (Peridinin chlorophyll protein)	675	FL4 (665/30)
	PE-Cy5.5	695	FL5 (720/60)
	PerCP-Cy5.5	695	FL5 (720/60)
	PerCP-eFluor 710	710	FL5 (720/60)
PE-Cy7	779	FL6 (785/60)	
561 nm laser	mOrange	562	FL3 (600/60)
	DsRed-Monomer	586	FL3 (600/60)
	tdTomato	581	FL3 (600/60)
	mCherry	610	FL3 (600/60)
	mPlum	649	FL4 (665/30)
638 nm laser	APC (Allophycocyanin)	660	FL4 (665/30)
	Cy5	666	FL4 (665/30)
	Alexa Fluor 647	668	FL4 (665/30)
	APC-Cy5.5	695	FL5 (720/60)
	Alexa Fluor 700	719	FL5 (720/60)
	APC-Cy7	779	FL6 (785/60)
	APC-Alexa Fluor 750	775	FL6 (785/60)

Fluorescent Protein Optical Filter Pattern. The optional Fluorescent Protein Filter set has been optimized for various fluorescent proteins to be analysed simultaneously. This optional filter configuration will for example enable the simultaneous analysis of EGFP & EYFP.



Optical filter label	Installed optical filter
LP1	550LP
LP2	525LP
LP3	495LP
LP4	725LP
LP5	605LP
FL1	450/50
FL2	510/20
FL3	535/30
FL4	585/40
FL5	640/30
FL6	785/60
FSC	488/17F
BSC	488/17B

## The Sony SH800 Optical design showing the Laser and Detector Modules



## Sony SH800 Cell Sorter inside the CAS BioMat2 Biosafety Cabinet:



The CAS Cabinet Class II Biosafety Cabinet is custom build for the Sony SH800. There is an easy access door on the front panel for convenient chip loading, as well as a side door on the left side for re-filling the DI tank which is used for flushing the sample line between the samples.