

## BD LSRFortessa™ X-20 Flow Cytometer Configuration

Laser	Detector	Emission Capture (nm)	Filter/Mirror	Example Fluorophores
<b>UV Laser</b> (355 nm, 15 mW)	<b>A</b>	740/35	690LP	BUV737
	<b>B*</b>	379/28		BUV395, CellTrace™ Blue
<b>Violet Laser</b> (405 nm, 50 mW)	<b>A</b>	780/60	750LP	BV785, BV786, Qdot® 800, Super Bright 780
	<b>B</b>	710/50	690LP	BV711, Qdot® 705, Super Bright 702
	<b>C</b>	670/30	635LP	BV650, Qdot® 655, Super Bright 645
	<b>D</b>	610/20	595LP	BV605, Qdot® 625, Super Bright 600, Fixed Viability Stain 575V, Zombie Yellow™
	<b>E</b>	525/50 <sup>▽</sup>	495LP	BV510, eFluor®506, Fixed Viability Stain 510, LIVE DEAD Aqua, Pacific Orange, Zombie Aqua™
	<b>F*</b>	450/50 <sup>▽</sup>		BV421, Alexa Fluor® 405, Pacific Blue, Indo-1, Super Bright 436
<b>Blue Laser</b> (488 nm, 100 mW)	<b>A</b>	710/40	685LP	BB700, PerCP, PerCP-Cy™5.5, PerCP-eFluor® 710
	<b>B</b>	525/50 <sup>▽</sup>	505LP	Alexa Fluor® 488, BB515, FITC, GFP, Zombie Green™
	<b>FSC/SSC*</b>	488/10		
<b>Yellow-Green Laser</b> (561 nm, 50 mW)	<b>A</b>	780/60	750LP	PE-Cy™7
	<b>B</b>	660/20	630LP	7-AAD, PI, PE-Cy5
	<b>C</b>	610/20	595LP	Alexa Fluor® 594, mCherry, PE-CF594, PE-Texas Red®
	<b>D*</b>	586/15		PE, DsRed
<b>Red Laser</b> (640 nm, 100 mW)	<b>A</b>	780/60	750LP	Alexa Fluor® 750, APC-Cy7, APC-H7, eFluor® 780
	<b>B</b>	730/45	710LP	Alexa Fluor® 700, APC-R700
	<b>C*</b>	670/14		Alexa Fluor® 647, APC, eFluor® 660

\* Primary Detector

Alternate configuration for DAPI. Change UV-B to 450/50 - 410 LP

Alternate configuration for Indo-1. Change UV-A to 450/50 - 410 LP

<sup>▽</sup> Autofluorescence appears in these channels. Autofluorescence is natural fluorescence that occurs in cells. The common compounds that give rise to this fluorescence signal include cyclic ring compounds like NAD(P)H, Collagen, and Riboflavin, as well as aromatic amino acids including tyrosine, tryptophan, phenylalanine. These compounds absorb in UV to Blue range (355-488 nm), and emit in the Blue to Green range (350-550 nm). The consequence of this autofluorescence is the loss of signal resolution in these light ranges and a decrease in signal sensitivity. Autofluorescence typically increases with cell size. Larger cells have more autofluorescence than small cells due to the simple fact that the larger cells often contain more autofluorescent compounds. From <https://expertcytometry.com/what-is-autofluorescence/>