



The Invitrogen™ Attune™ Nxt Flow Cytometer.
For more information, go to thermofisher.com/attune

Fluorophore and reagent selection guide for flow cytometry

Excitation laser	Common emission filters (nm)	Attune Nxt channel (nm)	Recommended dyes	Viability dyes (compatible with fixation)	Viability dyes (non-fixed cells)	DNA content/cell cycle dyes (live cells)	DNA content/cell cycle dyes (fixed cells)	Apoptosis dyes	Cell proliferation dyes	Reactive oxygen species (ROS) detection dyes	Phagocytosis dyes	Fluorescent proteins	Other dyes
UV (~350 nm)	369/28 379/28	NA											BD Horizon™ BUV395
	440/40 450/50	NA	Alexa Fluor™ 350 Alexa Fluor™ 405	LIVE/DEAD™ Fixable Blue	DAPI SYTOX™ Blue	Hoechst 33342 Vybrant™ DyeCycle™ Violet	FxCycle™ Violet (DAPI)	Annexin V, Alexa Fluor 350 Annexin V, Pacific Blue™	Click-IT™ Plus EdU Alexa Fluor 350			EFCP	BD Horizon™ BUV496
	740/35	NA											BD Horizon™ BUV737
Violet (405 nm)	425/20 440/60 450/50 455/50 450/65 460/50	VL1 440/50	Alexa Fluor 405 Pacific Blue	LIVE/DEAD™ Fixable Violet	DAPI SYTOX Blue	Vybrant DyeCycle Violet	FxCycle Violet	Annexin V, Pacific Blue PO-PRO™-1	CellTrace™ Violet Click-IT Plus EdU Pacific Blue			Azurite Cerulean TagBFP ECFP mTurquoise AmCyan	BD Horizon™ BV421 eFluor™ 450 BD Horizon™ V450 VioBlue™
	510/50 512/25 520/35 525/50 530/40 542/50 550/40	VL2 512/25	Pacific Green™	LIVE/DEAD™ Fixable Aqua				Violet Ratiometric Probe (F2N12S)				T-Sapphire	BD Horizon™ BV510 BD Horizon™ V500 eFluor™ 506 VioGreen™
	585/40 595/50 603/48 605/40 610/20	VL3 603/48	Pacific Orange™ Qdot™ 605	LIVE/DEAD™ Fixable Yellow				Violet Ratiometric Probe (F2N12S)					BD Horizon™ BV570 BD Horizon™ BV605 BD Horizon™ BV650 eFluor™ 605NC
	660/40 710/50	VL4 710/50	Qdot™ 705										BD Horizon BV650 BD Horizon™ BV711 eVolve™ 655
	525/50 525/30 525/40 530/30 530/40	BL1 530/30	Alexa Fluor™ 488 FITC	LIVE/DEAD™ Fixable Green	SYTOX™ Green	Vybrant™ DyeCycle™ Green		Annexin V, Alexa Fluor 488 Annexin V, FITC Anti-PARP-FITC APO-BRDU™ TUNEL-Alexa Fluor 488 CellEvent™ Caspase-3/7 Green MitoProbe™ DiOC ₂ (3) MitoProbe™ JC-1 YO-PRO™-1 Iodide	CellTrace™ CFSE Click-IT Plus EdU Alexa Fluor 488	CellROX™ Green	pHrodo™ Green <i>E. coli</i> BioParticles™ conjugate pHrodo™ Green <i>S. aureus</i> BioParticles™ conjugate	EGFP Emerald EYFP	BD Horizon™ BB515
	574/26 575/30 580/23 585/40 586/15 590/40	BL2 574/26 (without yellow laser present) 590/40 (with yellow laser present)	PE PE-Alexa Fluor 610 PE-Texas Red™	LIVE/DEAD™ Fixable Red	7-AAD PI SYTOX™ AADvanced™ SYTOX™ Orange	Vybrant™ DyeCycle™ Orange	FxCycle™ PI/RNase	Annexin V, PE TMRE TMRM MitoProbe JC-1				pHrodo™ Red <i>E. coli</i> BioParticles™ conjugate pHrodo™ Red phagocytosis kit	EYFP mCitrine Venus
670/30 675/30 680/30 695/30 695/40 710/50	BL3 695/40	PE-Alexa Fluor™ 700 PE-Cy5.5 PerCP PerCP-Cy5.5 Qdot 705 TRI-COLOR™		7-AAD PI SYTOX AADvanced									BD Horizon™ PE-CF594 PE/Dazzle™ 594 PerCP-eFluor™ 710 PerCP-Vio700™ VioGreen™ Vio770™
750 LP 775/50 780/40 780/60 785/70	BL4 780/60 (without yellow laser present)	PE-Cy7 Qdot™ 800				Vybrant™ DyeCycle™ Ruby							PE-Vio770™ VioGreen™
Green (532 nm)	555/20 575/24 585/16 585/42 610/20	NA	Alexa Fluor™ 532 Alexa Fluor™ 555 DsRed Qdot™ 565 Qdot™ 605 R-phycoerythrin (R-PE, PE)		SYTOX™ Orange	Vybrant DyeCycle Orange		Annexin V, R-PE Annexin V, Alexa Fluor™ 555 MitoTracker™ Orange CMTMRos	CellTrace™ Yellow	CellROX™ Orange	pHrodo™ Red <i>E. Coli</i> BioParticles™ conjugate	tdTomato YFP	
	610/20 620/15 630/30	NA	Alexa Fluor™ 568 Alexa Fluor™ 594 Qdot 605 PE-Texas Red™	LIVE/DEAD™ Fixable Red	SYTOX™ AADvanced™ PI	Vybrant DyeCycle Orange	FxCycle PI/RNase	Annexin V, Alexa Fluor 568 Annexin V, Alexa Fluor 594 MitoTracker™ Red MNXRos	Click-IT Plus EdU Alexa Fluor 594			tmCherry	
	695/40 710/50	NA	Qdot 705 PE-Alexa Fluor 700 TRI-COLOR (PE-Cy5) PE-Cy5.5		SYTOX™ AADvanced™	Vybrant DyeCycle Ruby							
	780/60	NA	Qdot 800 PE-Cy7										
Yellow (561 nm)	585/40 586/15 590/40	YL1 585/15	Alexa Fluor 555 PE		PI SYTOX™ Orange	Vybrant DyeCycle Orange		MitoTracker Orange CMTMRos MitoTracker™ Red CMXRos TMRE TMRM	CellTrace Yellow	CellROX™ Orange	pHrodo™ Red <i>E. Coli</i> BioParticles™ conjugate	mOrange RFP	
	610/20 613/20 615/50 620/15 620/30	YL2 620/15	PE-Alexa Fluor 610 PE-Texas Red™	LIVE/DEAD™ Fixable Red	7-AAD PI SYTOX AADvanced SYTOX Orange	Vybrant DyeCycle Orange	FxCycle™ PI/ RNase	Annexin V, Alexa Fluor 568 Annexin V, Alexa Fluor 594	Click-IT Plus EdU Alexa Fluor 594			DsRed mCherry mKate mStrawberry tdTomato	ECD PE-CF594 BD Horizon™ PE/Dazzle™ 594 PE-eFluor™ 610 PE-Vio™ 610 Texas Red™
	670/30 675/30 680/30 695/30 695/40	YL3 695/40	PE-Alexa Fluor 700 PE-Cy5.5 Qdot 705 TRI-COLOR		7-AAD PI SYTOX AADvanced							mPlum mRaspberry mNeptune	
	750 LP 775/50 780/40 780/60 785/70	YL4 780/60	PE-Cy7 Qdot 800				Vybrant DyeCycle Ruby						PE-Vio770™
Red (638 nm)	660/20 661/20 665/20 670/14 670/30 675/30	RL1 670/14	Alexa Fluor™ 647 APC Qdot™ 655	LIVE/DEAD™ Fixable Far Red	SYTOX™ Red		FxCycle™ Far Red	Annexin V, Alexa Fluor 647 Annexin V, Alexa Fluor 680 Annexin V, APC MitoProbe™ DiIC ₁ (5) TO-PRO™-3	CellTrace™ Far Red Click-IT Plus EdU Alexa Fluor™ 647	CellROX™ Deep Red			eFluor™ 660
	720/30 730/45	RL2 720/30	Alexa Fluor™ 680 Alexa Fluor™ 700 APC-Alexa Fluor™ 700 Qdot 705										
	750 LP 775/50 780/40 780/60 785/70	RL3 780/60	APC-Alexa Fluor™ 750 APC-Cy7	LIVE/DEAD™ Fixable Near-IR			Vybrant DyeCycle Ruby						APC-H7 APC-eFluor™ 780 APC-Vio770™



To find out about Invitrogen™ antibodies, assays, and instruments for flow cytometry, go to thermofisher.com/flowcytometry