

Fluorochrome	Excitation (nm)	Emission (nm)	Best Filter (available)	LP	Alternative Filters (all non-standard)	Notes
7-AAD	488;546	647	710/50;670/30	685;635	670/30 BP with 635LP*	NOTE: very high spectral spillover into 670/30 BP from 561nm Yellow laser
Alexa Fluor 350	343	442	450/50	-		
Alexa Fluor 405	401	421	450/50	-		
Alexa Fluor 430	434	540	525/50	505		
Alexa Fluor 488	499	519	530/30	505		
Alexa Fluor 500	503	525	530/30	505		
Alexa Fluor 514	517	542	530/30	505		
Alexa Fluor 532	530	555	530/30	505	560/40 BP with 505LP	
Alexa Fluor 546	561	572	586/15	-	575/25 BP with 550LP	Alternative filter set should only be used if using 488nm Blue laser for excitation
Alexa Fluor 555	553	568	586/15	-	575/25 BP with 550LP	Alternative filter set should only be used if using 488nm Blue laser for excitation
Alexa Fluor 568	579	603	610/20	600		
Alexa Fluor 594	591	618	610/20	600		
Alexa Fluor 610	610	629	610/20	600		
Alexa Fluor 633	632	648	670/14	690	670/30	
Alexa Fluor 647	652	668	670/14	-	670/30	
Alexa Fluor 660	663	691	675/50*	-		This filter combo is NON -standard for 640nm Red laser
Alexa Fluor 680	680	702	730/45	690		
Alexa Fluor 700	696	719	730/45	690		
Alexa Fluor 750	752	804	780/60	750		Currently unable to excite this dye with available lasers
Alexa Fluor 790	782	804	780/60	750		Currently unable to excite this dye with available lasers
AmCyan	458	489	525/50	505		
APC	645	660	670/14	-	670/30	
APC-Alexa 680	650	702	730/45	690		
APC-Alexa 700	650	719	730/45	690		
APC-Alexa 750	650	774	780/60	750		
APC-Cy5.5	650	690	730/45	690		
APC-Cy7	650	774	780/60	750		
APC-eFluor 780	650	780	780/60	750		
APC-Fire 750	650	787	780/60	750		
APC-H7	650	785	780/60	750		
APC-R700	652	704	730/45	690		
APC-Vio770	652	775	780/60	750		
Azami Green	492	505	530/30	505		
BB515	490	515	530/30	505		
BB630	484	631	Not released	NR		
BB660	484	667	Not released	NR		
BB700	484	695	Not released	NR		
BB790	484	793	Not released	NR		
BFP	380	440	450/50	-		
BUV395	348	395	379/28	-		
BUV496	348	496	525/50*	505		This filter combo is NON -standard for 355nm UV laser
BUV563	348	563	585/15*			This filter combo is NON -standard for 355nm UV laser

BUV615P	349	616	Not released			
BUV661	348	661	660/20*	630		This filter combo is NON -standard for 355nm UV laser
BUV737	348	737	740/35	685		
BUV805	348	805	780/60*	750		This filter combo is NON -standard for 405nm Violet laser
BV421	407	421	450/50	-		
BV480	436	478	525/40*			This filter combo is NON -standard for 405nm Violet laser
BV510	405	510	525/50	505		
BV570	407	574	Not released			
BV605	407	605	610/20	600		
BV650	407	650	660/20	630		
BV711	407	711	710/50	690		
BV750P	407	748	Not released			
BV786	407	786	780/60	750		
BYG584	563	584	Not released			
Calcein Blue-AM	360	445	450/50	-		
Calcein Violet-AM	408	450	450/50	-		
Calcein-AM	495	515	530/30	505		
Cascade Blue	398	420	450/50	-		
Cascade Yellow	402	545	525/50	505		
Cell Proliferation Dye eFluor 450	409	450	450/50	-		
Cell Proliferation Dye eFluor 670	647	670	670/14	-	670/30	
CellTrace BODIPY	508	625	610/20*	600*		This filter combo is NON -standard for 488nm Blue laser
CellTrace Far Red	647	657	670/14	-	670/30	
CellTrace Oregon Green 488	498	516	530/30	505		
CellTrace Violet	405	455	450/50	-		
CellTracker Blue	353;371	466/464	450/50	-		CMAC/CMF ₂ HC
CellTracker Deep Red	630	650	670/14	-		
CellTracker Green	492	517	530/30	505		
CellTracker Orange	548	576	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
CellTracker Red	577	602	610/20	600		
CellTracker Violet	415	516	525/50	505		
CellVue Burgundy	683	707	730/45	690		
CellVue Claret	655	677	670/14	-		
CellVue Jade	478	508	530/30	505		
CellVue Lavender	420	461	450/50	-		
CellVue Maroon	647	667	670/14	-	670/30	
CellVue NIR780	745	776	780/60	750		Currently unable to excite this dye with available lasers
CellVue NIR815	786	814	780/60	750		Currently unable to excite this dye with available lasers
CellVue Plum	652	671	670/14	-		
Cerulean	433	475	450/50	-		
CFP	433	475	450/50	-		
CFSE	494	521	530/30	505		
Chromo 488	488	517	530/30	505		excellent dye for STED microscopy
Chromo 494	494	628	610/20*	600*		This filter combo is NON -standard for 488nm Blue laser, excellent dye for STED microscopy
Chromo 505	505	526	530/30	505		excellent dye for STED microscopy
Chromo 546	545	561	585/42*	-	586/15	This filter combo is NON -standard for 561nm Yellow/Green laser, excellent dye for STED microscopy
Chromo 642	642	660	670/14		660/20	excellent dye for STED microscopy

Chromomycin A3	445	575	450/50			we do not have the optimal laser for exciting this fluorochrome is wishing to analyse/sort chromosomes
Cy2	489	506	530/30	505		
Cy3	550	570	586/15	-	575/25 BP with 550LP	Alternative filter set only to be used if using 488nm Blue laser for excitation, filter set is NON -standard for 488nm Blue laser
Cy3.5	581	594	586/15	-		
Cy5	650	670	670/14	-	670/30	
Cy7	743	767	780/60	750		
CyChrome	480	670	710/50	685	670/30 BP with 635LP	
CytoPhase Violet	355	440	450/50	-		
DAPI	345	455	450/50	-		
Dil	549	565	530/30	505	560/40 BP with 505LP	
DiO	484	501	530/30	505		
DRAQ5	647	681,697	670/14	-	670/30	
DRAQ7	600,646	697	685/35	-	670/30 BP or 675/50 BP	WARNING: multilaser excitation - 561 and 488nm lasers will also excite DRAQ7
DsRed	558	583	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
dTomato	554	581	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
DyLight 350	353	432	450/50	-		
DyLight 405	400	420	450/50	-		
DyLight 488	493	518	530/30	505		
DyLight 550	562	576	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
DyLight 594	593	618	610/20	600		
DyLight 633	638	658	670/14	-	670/30	
DyLight 650	654	673	670/14	-		
DyLight 680	692	712	730/45	690		
DyLight 755	754	776	780/60	750		Currently unable to excite this dye with available lasers
DyLight 800	777	794	780/60	750		Currently unable to excite this dye with available lasers
ECD	486	620	610/20*	600*		This filter combo is NON -standard for 488nm Blue laser
eFluor 565 NC	550	565	530/30	505	560/40 BP with 505LP	
eFluor 490 NC	470	490	530/30	505		
eFluor 525 NC	505	525	530/30	505		
eFluor 585 NC	570	585	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
eFluor 605 NC	590	605	610/20	600		
eFluor 625 NC	610	625	610/20	600		
eFluor 650 NC	640	650	670/14	-		
eFluor 660	633	660	670/14	-	670/30	
eFluor 700 NC	660	690	730/45	690		
Emerald	487	509	530/30	505		
FITC	495	519	530/30	505		
Fluo-3	506	526	530/30	505		
FluoroGold	330,390	450,600	450/50;585/42*	-		585/42 BP filter is NON -standard. NOTE: will spill into 450/50 BP and 586/14 BP from 405nm Violet laser
FluorX	494	520	530/30	505		
FP	-	-				
Fura-2	300-400*	510	530/30;525/50	505		Variable excitation based on concentration of free Ca ²⁺ . 530/30 with UV, 525/50 with 405nm
FVD eFluor 450	405	450	450/50	-		
FVD eFluor 455UV	350	455	450/50	-		
FVD eFluor 506	405	506	525/50	505		
FVD eFluor 520	488	522	530/30	505		
FVD eFluor 660	633	660	670/14	-	670/30	

FVD eFluor 780	633	780	780/60	750		
FVS 450	406	448	450/50			
FVS 510	408	512	525/50	505		
FVS 520	498	521	530/30	505		
FVS 570	547	573	586/15	-	585/42	
FVS 620	523	617	610/20	600		
FVS 660	649	660	670/14	-	660/20	
FVS 700	657	700				
FVS 780	759	780				
GFP	488	507	530/30	505		
Helix NP Green	495	640	660/20*	600		This filter combo is NON -standard for 488nm Blue laser
Helix NP NIR	640	660	660/20*	-		This filter combo is NON -standard for 640nm Red laser
Hoechst	-	-	-	-		
Hoechst 33258	345	478	450/50	-		
Hoechst 33342	343	483	450/50	-		
Hoechst Blue	352	483	450/50	-		
Hoechst Red	352	650	670/30*	510*		This filter combo is NON -standard, but is best for Side Population analysis
Indo-1 (Blue)	350	475	450/50	-		
Indo-1 (Violet)	330	405	450/50	-		
Krome Orange	398	528	525/50	505		
Live/Dead Aqua	367	526	530/30	505		
Live/Dead Blue	350	450	450/50	-		
Live/Dead Far Red	650	665	670/14	-	670/30	
Live/Dead Green	495	520	530/30	505		
Live/Dead Near-IR	750	775	780/60	750		Currently unable to excite this dye with available lasers
Live/Dead Red	595	615	610/20	600		
Live/Dead Violet	416	451	450/50	-		
Live/Dead Yellow	400	575	525/50	505	610/20 BP with 595LP	
Lucifer Yellow	428	536	525/50	505		
Marina Blue	362	459	450/50	-		
mBanana	540	553	530/30	505	560/40 BP with 505LP	
mCherry	587	610	610/20	600		
mHoneyDew	487	537	530/30	505		
MitoTracker Deep Red	644	665	670/14	-	670/30	
MitoTracker Green	490	516	530/30	505		
MitoTracker Orange	551	576	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
MitoTracker Red	578	599	586/15	-		
mKate	588	633	610/20	600		
mNeptune	600	650	670/30	635		
mOrange	546	562	530/30	505	560/40 BP with 505LP	
mPlum	589	649	670/30	635		
mRaspberry	597	624	610/20	600		
mRFP1	584	607	610/20	600		
mStrawberry	574	596	586/15	-		
mTangerine	568	585	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
Oregon Green 488	496	516	530/30	505		
Pacific Blue	410	455	450/50	-		

Pacific Orange	410	551	525/50	505		
PE	496,565	575	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
PE-Alexa 594	496,565	618	610/20*	600*		
PE-Alexa 610	496,565	629	610/20*	600*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PE-Alexa 700	496,565	719	710/50	685		
PE-CF594	496,565	612	610/20*	600*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PE-Cy5	496,565	670	670/30*	635*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PE-Cy5.5	496,565	690	710/50	685	685/35 BP with 670LP	
PE-Cy5-5	496,565	690	710/50	685	685/35 BP with 670LP	
PE-Cy7	496,565	774	780/60*	750*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PE-Dazzle 594	566	610	610/20	600		
PE-mCherry	496,565	610	610/20*	600*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PerCP	482	675	710/50	685	670/30 BP with 635LP	
PerCP-Cy5.5	482	690	710/50	685	685/35 BP with 670LP	
PerCP-eFluor 710	482	710	710/50	685		
PerCP-Vio700	482	704	710/50	685		
PE-Texas Red	496,565	603	610/20*	600*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
PE-Vio770	496,565	770	780/60*	750*		If using 488nm Blue laser this filter combo is NON -standard; is standard for 561nm Yellow laser
pHrodo	560	585	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
PI	535	620	610/20*	600*		If using 488nm Blue laser, this filter combo is NON -standard, if using 561nm Yellow laser this combo is standard
POPO-3	534	570	586/15	-		
Pyronin Y	488	570	560/40*	545*		RNA. This filter combo is NON -standard for 488nm Blue laser
Qdot	-	-	-	-		
Qdot 525	350,405	525	525/50	505		
Qdot 545	350,405	545	530/30;525/50	505		530/30 BP if using 355nm UV laser; 525/50 if using 405nm Violet laser
Qdot 565	350,405	565	530/30;525/50	505		530/30 BP if using 355nm UV laser; 525/50 if using 405nm Violet laser
Qdot 585	350,405	585	585/42*;586/15	570		586/42 BP if using 355nm laser, 586/15 if using 405nm laser. UV filter set is NON -standard
Qdot 605	350,405	605	610/20*	570/600		610/20 BP with 570LP is NON -standard on UV laser; with 600LP is standard on 405nm laser
Qdot 655	350,405	655	660/20*	630*		If using 355nm UV laser this filter combo is NON -standard; is standard for 405nm Violet laser
Qdot 700	350,405	700	710/50*	690*		If using 355nm UV laser this filter combo is NON -standard; is standard for 405nm Violet laser
Qdot 705	350,405	705	710/50*	690*		If using 355nm UV laser this filter combo is NON -standard; is standard for 405nm Violet laser
Qdot 800	350,405	800	780/60	750		
RFP	563	582	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
RFP dTomato	554	571	586/15	-	575/25 BP with 550LP	Alternative filter set only to be used if using 488nm Blue laser for excitation
RFP tdTomato	554	581	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
Sapphire	399	511	525/50	505		
SNARF	548/579	587/635	586/15;610/20			pH 6/9; emission wavelength will depend on pH
SYBR Green	497	520	530/30			DNA
SYPRO Red	544	619	610/20	600		
SYTOX Blue	431	480	450/50	-		DNA
SYTOX Green	504	523	530/30	505		DNA
SYTOX Orange	547	570	586/15	-	575/25 BP with 550LP	DNA. Alternative filter set only to be used if using 488nm Blue laser for excitation
Tag-It Violet	395	455	450/50	-		
tdTomato	554	581	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
Texas Red	589	615	610/20	600		
TO-PRO-1	509	533	530/30	505		
TO-PRO-3	642	661	670/14	-	670/30	

TOTO-1	509	533	530/30	505		
TOTO-3	642	661	670/14	-	670/30	
TRITC	547	572	586/15	-	575/25 BP with 550LP	Alternative filter set only to be used if using 488nm Blue laser for excitation
UV1	-	-	-	-		
UV2	-	-	-	-		
V450	404	448	450/50	-		
V500	415	500	525/50	505		
Venus	515	528	530/30	505		
VioBlue	400	452	450/50	-		
VioBright FITC	495	519	530/30	505		
VioGreen	388	520	525/50	505		
Violet1	-	-	-	-		
Violet2	-	-	-	-		
Vybrant DyeCycle Green	488	534	530/30	505		
Vybrant DyeCycle Orange	488;532	563	530/30	505	560/40 BP with 505LP	
Vybrant DyeCycle Ruby	488;633	686	710/50;670/14	685; -		
Vybrant DyeCycle Violet	355;405	437	450/50	-		
X-Rhodamine	570	576	586/15	-	585/42	WARNING: use this wider BP with care: ↑ spectral overlap with other dyes in 610/20BP
YFP	514	527	530/30	505		
Zombie Aqua	394	516	525/50	505		
Zombie Green	496	515	530/30	505		
Zombie NIR	709	746	780/60	750		
Zombie Red	599	624	610/20	600		
Zombie UV	370	459	450/50	-		
Zombie Violet	398	423	450/50	-		
Zombie Yellow	398	572	525/50	505	610/20 BP with 595LP	