

Fluorophore - Reactive group selection chart

Fluorophore - Reactive group selection chart		Reactive group:	NHS esters	TFP esters	Azides	Alkynes	Cycloalkynes	Tetrazines	Cycloalkenes	Hydrazides	Amines	Maleimides	Carboxylic acids	Phosphoramidites	
Fluorophore:	R ¹ /R ²	Target:	Primary amine (peptides, proteins, amino-labeled DNA)	Primary amine (peptides, proteins, amino-labeled DNA)	Ethynyl group, cycloalkynes (click chemistry)	Azide (click chemistry)	Azide (copper-free click chemistry)	Strained dienophile (trans-cyclooctene, cyclopropene), alkenes	Tetrazine (copper-free click chemistry)	Carbonyl group (aldehydes, ketones)	Electrophilic reagents (like activated esters)	Sulfhydryl group (peptides, proteins)	Various (Steglich esterification)	DNA (oligo synthesis)	
		Abs. max. (nm)	Em. max. (nm)												
Pyrene		242	377	63520	•3530 •2530 •1530	•1580				•3570		•3580	63590	•1460	
PEP (Phenylethynyl-pyrene)		362 384	389		•4530										
Perylene		410 434	436 465		•5530	•5580									
AMCA		345	450	3606•	3605•								3357•		
AF 343 (Coumarin)		437	477	•2620	•2630 •1630								•2690		
BDP® FL		503	509	•1420		•1430	•1480	•14F0	•14E0		•1470	•14C0	•1480	•1490	
AF 488		495	519	•1820		•1830	•1880	•18F0	•18E0	•18H0	•1870	•18C0	•1880	•1890	
FAM (Fluorescein)		494	520	•5120 2934•	•5130 •4130	•4180 •5180	•51F0	•41E0 •51E0		•5170 •4170	•51C0 •41C0	•4180		•3460 •5160 2639•	
TET (Tetrachlorofluorescein)		519	535			•8230							•8290	•8160	
AF 430		430	542	•0820		•0830	•0880		•08E0		•0870	•08C0	•0880	•0890	
VIC		526	543			•H230							•H290	•H260	
R6G		519	546	•4220		•4430	•5280							•5260	
BDP® R6G		527	547	•4420		1476•	•4480	•44F0	•44E0		•4470	•44C0	•4480	•4490	
HEX (Hexachlorofluorescein)		533	549	•8220		•8230							•8290	•8260	
JOE		533	554	•1120		•1130	•2180							•1160 •2160	
AF 532		532	554	•C820									•C890		
SIMA (Dichloro-diphenyl-fluorescein)		531	555			•E230							•E290	•3360 •E260 2950•	
sulfo-Cyanine3		548	563	•1320		•1330	•1380	•13F0	•13E0		•1370	•13C0	•1380	•1390	
TAMRA (TMR, Tetramethylrhodamine)		556	563	•8120 •7120		•7130 •8130	•7180 •8180	•71F0			•8170	•71C0	•8180 •7180	•7190	2497• 2318•
AF 555		552	566	•K820		•K830		•K8F0			•K8C0		•K890		
BDP® 558/568		561	569	•7420		•7430	•7480	•74F0	•74E0		•7470	•74C0	•7480	•7490	
Cyanine3		555	570	•8041 •1020		•1030	•1080	•10F0 3269•	•10E0		•1070	•10C0	•1080	•1090	2771•
Cyanine3B		559	571	•9320		•9330		•93F0	•93E0			•93C0	•9380	2321•	
BDP® TMR		542	574	•2420 •F420		•2430	•2480	•24F0	•24E0			•24C0	•2480	•2490	
ATT 550		556	574	•C920		•C930							•C990		
BDP® 564/570		565	574	•H420									•H490		
ATT 565		554	578			•A930									
ROX (Rhodamine X, Rhodamine 101)		570	591	•2220 •1220		•1230 •2230	•2280 •1280	•12F0	•12E0			•22C0	•1280	•2290	
BDP® 576/589		580	592	•G420		•G430			•G4E0				•G490		
BDP® 581/591		585	594	•6420		•6430	•6480	•64F0	•64E0		•6470	•64C0	•6480	•6490	
AF 568		572	598	•4820		•5820	•4880	•158F0					•5890		
sulfo-Cyanine3.5		576	603	•2320		•2330	•2380					•23C0	•2390		
Cyanine3.5		591	604	•2020		•2030		•20F0					•2090		
Calibro® Fluor 610		585	605										•4C90		
AF 594		586	613	•2825		•7830			•78E0				•4890		
TR		596	615	•V220		•Y230					•Y270		•V290		
BDP® TR		589	616	•3420 •D420		•3430	•3480	•D4F0	•34E0		•3470	•34C0	•3480	•3490	
ATT 594		603	624			•8930							•8990		
BDP® 630/650		628	642	•5420		•5430	•5480		•54E0		•5470	•54C0	•5480	•5490	
ATT 633		630	650			•D930									
sulfo-Cyanine5		646	662	1058• •3320 •33D0		•3330	1058• •3380	•33F0	•33E0		•3370	•33C0	•3380	•3390	
Cyanine5		646	662	•C041 •3020		•0	•3080	•30F0	•30E0		•3070	•30C0	•3080	•3090	1740•
BDP® 650/665		646	662	•E420		•8430	•8480	•E4F0				•8480			
ATT 647N		644	662	•E920											

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AF 647		655	680	•6820		•6830		•G8F0				•68C0	•6880	•6890	
sulfo-Cyanine5.5		673	691	•7320		•7330	•7380	•73F0	•73E0			•73C0	•7380	•7390	
Cyanine5.5		684	710	•7020		•4030	•7080	•70F0	•70E0		•7070	•70C0	•7080	•7090	2680•
sulfo-Cyanine7		750	773	•5300 •5320		•5330	•5380	•53F0	•53E0			•53C0	•5380	1497• •5390	
Cyanine7		750	773	•5020		•5030	•5080	•50F0	•50E0		•5070	•50C0	•5080	•5090 1512•	
sulfo-Cyanine7.5		778	797	•6320		•6330	•6380					•63C0	•6380	•6390 1382•	
Cyanine7.5		788	808	•6020		•6030	•6080		•60E0		•6070	•60C0	•6080	•6090	
ICG (Indocyanine Green)		787	819										•8080		

• The dot represents the part of the product number which indicates the package size.



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