

Fluorophore - Reactive group selection chart

Fluorophore:	Reactive group:		NHS esters Primary amine (peptides, proteins, amino-labeled DNA)	Azides Ethylnyl group (click chemistry)	Alkynes Azide (click chemistry)	Maleimides Sulphydryl group (peptides, proteins)	Hydrazides Carbonyl group (aldehydes, ketones)	Carboxylic acids Various (Steglich esterification)	Amines Electrophilic reagents (like activated esters)	Tetrazine Strained dienophile (trans-cyclooctene, cyclopropene)	Phosphoramidite DNA (oligo synthesis)	Cycloalkyne Azide (copper free Click chemistry)
	Target:											
	Abs. max. (nm)	Em. max. (nm)										
Pyrene	320 376	380	63520	•1530 •2530 •3530	•1580	•3580	•3570	63590			•1460	
Phenylethynyl-pyrene (PEP)	362 384	389		•4530								
Perylene	410 434	436 465		•5530	•5580							
Coumarin 343	437	477	•2620	•1630 •2630				•2690				
BDP FL	503	509	•1420	•1430	•1480	•1480	•1470	•1490	•14C0	•14E0		•14F0
Fluorescein (FAM)	494	520	•5120	•4130 •5130	•5180 •4180	•4180	•4170 •5170		•41C0 •51C0	•41E0	•5160	
JOE	533	544		•1130	•2180						•1160	
R6G	519	546		•4430	•5280							
BDP R6G	527	547	•4420	1476*	•4480	•4480		•4490	•44C0			
sulfo-Cyanine3	548	563	•1320	•1330	•1380	•1380		•1390	•13C0	•13E0		•13F0
TAMRA (TMR)	556	563		•7130 •8130	•7180 •8180		•8170		•71C0			
BDP 558/568	561	569	•7420					•7490				
Cyanine3	555	570	•1020 •8041	•1030	•1080	•1080	•1070	•1090	•10C0	•10E0		•10F0
BDP TMR	542	574	•2420	•2430	•2480	•2480		•2490	•24C0			
ROX (Rhodamine X, Rhodamine 101)	570	591	•2220 •1220	•1230	•1280							
BDP 581/591	585	594	•6420	•6430	•6480	•6480	•6470	•6490	•64C0	•64E0		
Cyanine3.5	591	604	•2020	•2030				•2090				
BDP TR	589	616	•3420	•3430	•3480	•3480	•3470	•3490	•34C0			
BDP 630/650	628	642	•5420	•5430		•5480	•5470	•5490	•54C0	•54E0		
Cyanine5	646	662	•3020 •C041	•3030	•3080	•3080	•3070	•3090	•30C0	•30E0		•30F0
sulfo-Cyanine5	646	662	•3320 •3300	•3330	•3380	•3380		•3390	•33C0	•33E0		
sulfo-Cyanine5.5	675	694	•7320	•7330	•7380	•7380		•7390	•73C0			
Cyanine5.5	673	707	•7020	•4030	•7080	•7080	•7070	•7090	•70C0	•70E0		
sulfo-Cyanine7	750	773	•5320	•5330	•5380	•5380		•5390 1497*	•53C0	•53E0		
Cyanine7	750	773	•5020	•5030	•5080	•5080	•5070	•5090 1512*	•50C0	•50E0		•50F0
sulfo-Cyanine7.5	778	797	•6320	•6330	•6380			•6390 1382*				
Cyanine7.5	788	808	•6020	•6030	•6080	•6080	•6070	•6090	•60C0	•60E0		

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