

# Fluorophore - Reactive group selection chart

| Fluorophore:                     | Reactive group: |               | NHS esters<br>Primary amine (peptides, proteins, amino-labeled DNA) | Azides<br>Ethylnyl group (click chemistry) | Alkynes<br>Azide (click chemistry) | Maleimides<br>Sulfhydryl group (peptides, proteins) | Hydrazides<br>Carbonyl group (aldehydes, ketones) | Carboxylic acids<br>Various (Steglich esterification) | Amines<br>Electrophilic reagents (like activated esters) | Tetrazine<br>Strained dienophile (trans-cyclooctene, cyclopropene) | Phosphoramidite<br>DNA (oligo synthesis) | Cycloalkyne<br>Azide (copper free Click chemistry) |
|----------------------------------|-----------------|---------------|---|--|------------------------------------|---|---|---|--|--|--|--|
|                                  | Target:         |               |   |  |                                    |   |   |   |  |  |  |  |
|                                  | Abs. max. (nm)  | Em. max. (nm) |   |  |                                    |   |   |   |  |  |  |  |
| Pyrene                           | 320<br>376      | 380           | •63520  | •1530<br>•2530<br>•3530                    | •1580                              | •3580   | •3570   | 63590   |  |  | •1460                                    |  |
| Phenylethynyl-pyrene (PEP)       | 362<br>384      | 389           |   | •4530                                      |                                    |   |   |   |  |  |  |  |
| Perylene                         | 410<br>434      | 436<br>465    |   | •5530                                      | •5580                              |   |   |   |  |  |  |  |
| Coumarin 343                     | 437             | 477           | •2620   | •1630<br>•2630                             |                                    |   |   | •2690   |  |  |  |  |
| BDP FL                           | 503             | 509           | •1420   | •1430                                      | •1480                              | •1480   | •1470   | •1490   | •14C0  | •14E0  |  | •14F0  |
| AF488                            | 495             | 519           | •1820   |  |                                    |   |   |   |  |  |  |  |
| Fluorescein (FAM)                | 494             | 520           | •5120   | •4130<br>•5130                             | •4180<br>•5180                     | •4180   | •5170<br>•4170                                    |   | •41C0<br>•51C0   | •51E0<br>•41E0   | •5160                                    | •51F0  |
| AF430                            | 430             | 542           | •0820   | •0830                                      | •0880                              | •0880   |   | •0890   |  | •08E0  |  |  |
| R6G                              | 519             | 546           |   | •4430                                      | •5280                              |   |   |   |  |  | •5260                                    |  |
| BDP R6G                          | 527             | 547           | •4420   | 1476•                                      | •4480                              | •4480   | •4470   | •4490   | •44C0  | •44E0  |  | •44F0  |
| JOE                              | 533             | 554           |   | •1130                                      | •2180                              |   |   |   |  |  | •1160<br>•2160                           |  |
| sulfo-Cyanine3                   | 548             | 563           | •1320   | •1330                                      | •1380                              | •1380   |   | •1390   | •13C0  | •13E0  |  | •13F0  |
| TAMRA (TMR)                      | 556             | 563           | •7120   | •8130<br>•7130                             | •8180<br>•7180                     | •7180<br>•8180                                      | •8170   |   | •71C0  |  | 2497•                                    |  |
| BDP 558/568                      | 561             | 569           | •7420   | •7430                                      | •7480                              |   | •7470   | •7490   | •74C0  |  |  |  |
| Cyanine3                         | 555             | 570           | •B041<br>•1020  | •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           | •1220<br>•2220  | •1230                                      | •1280                              | •1280   |   |   |  |  |  | •12F0  |
| BDP 581/591                      | 585             | 594           | •6420   | •6430                                      | •6480                              | •6480   | •6470   | •6490   | •64C0  | •64E0  |  | •64F0  |
| AF568                            | 572             | 598           | •4820   | •5820                                      | •4880                              |   |   | •5890   |  |  |  |  |
| sulfo-Cyanine3.5                 | 576             | 603           | •2320   | •2330                                      | •2380                              |   |   | •2390   |  |  |  |  |
| Cyanine3.5                       | 591             | 604           | •2020   | •2030                                      |                                    |   |   | •2090   |  |  |  |  |
| BDP TR                           | 589             | 616           | •3420<br>•D420  | •3430                                      | •3480                              | •3480   | •3470   | •3490   | •34C0  | •34E0  |  |  |
| BDP 630/650                      | 628             | 642           | •5420   | •5430                                      |                                    | •5480   | •5470   | •5490   | •54C0  | •54E0  |  |  |
| Cyanine5                         | 646             | 662           | •C041<br>•3020  | •0   | •3080                              | •3080   | •3070   | •3090   | •30C0  | •30E0  |  | •30F0  |
| sulfo-Cyanine5                   | 646             | 662           | •33D0<br>•3320  | •3330                                      | •3380                              | •3380   |   | •3390   | •33C0  | •33E0  |  | •33F0  |
| BDP 650/665                      | 646             | 662           | •E420   | •8430                                      | •8480                              | •8480   |   |   |  |  |  |  |
| sulfo-Cyanine5.5                 | 675             | 694           | •7320   | •7330                                      | •7380                              | •7380   |   | •7390   | •73C0  |  |  | •73F0  |
| Cyanine5.5                       | 684             | 710           | •7020   | •4030                                      | •7080                              | •7080   | •7070   | •7090   | •70C0  | •70E0  |  | •70F0  |
| sulfo-Cyanine7                   | 750             | 773           | •5320<br>•53D0  | •5330                                      | •5380                              | •5380   |   | •5390<br>1497•  | •53C0  | •53E0  |  |  |
| Cyanine7                         | 750             | 773           | •5020   | •5030                                      | •5080                              | •5080   | •5070   | •5090<br>1512•  | •50C0  | •50E0  |  | •50F0  |
| sulfo-Cyanine7.5                 | 778             | 797           | •6320   | •6330                                      | •6380                              | •6380   |   | •6390<br>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