

# mFluor™ Dyes

Spectrally Engineered for Multiplex Flow Cytometry

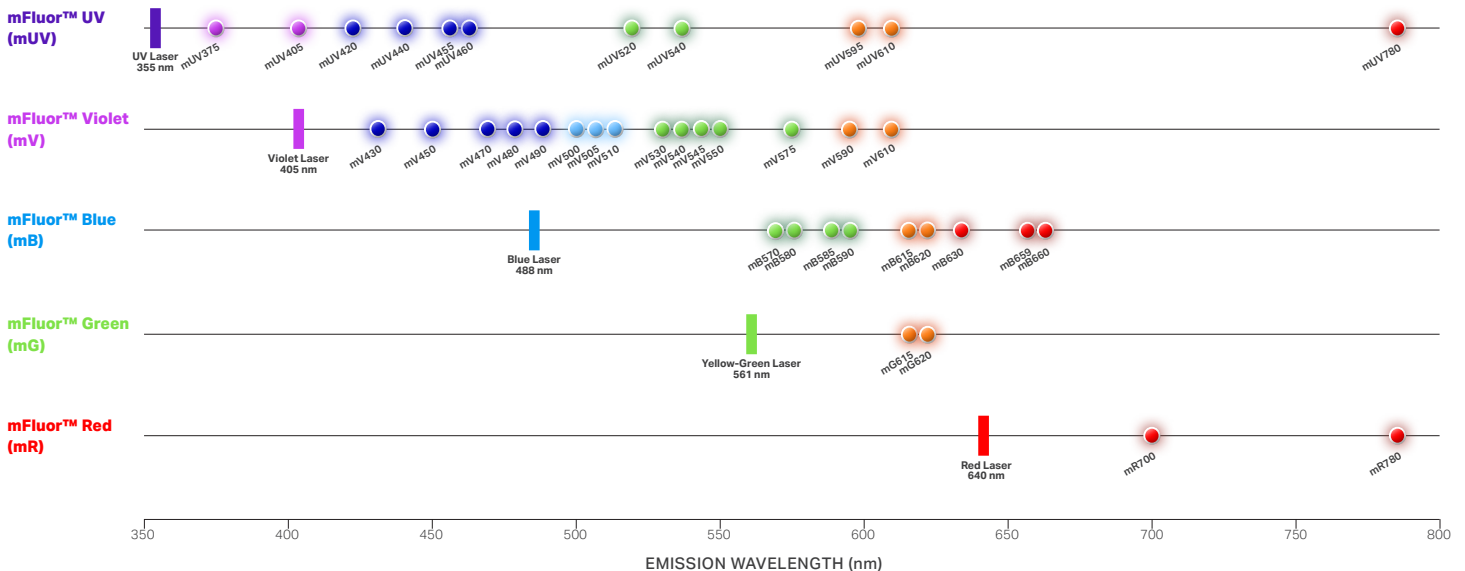
AAT Bioquest's mFluor™ dyes are a comprehensive family of fluorescent labeling dyes designed as improved alternatives to BD Horizon™ and Pacific Blue™ dyes. Compatible with every common cytometer laser line — UVB, UV, UVA, violet, blue, green, and red — the family was built to give conventional flow cytometry and spectral flow cytometry workflows a single dye platform with same-laser multiplexing across the UV and near-infrared. Whether you are labeling your own antibodies or building a high-plex spectral flow panel, mFluor™ provides well-characterized options in every spectral window.

## KEY FEATURES

- **20+ spectrally distinct colors** spanning emission range of 360–780 nm
- **Stokes-shift-tuned emissions** for same-laser multiplexing
- **Photostable** for extended imaging sessions
- **Available in multiple reactive forms** — SE, maleimide, click chemistry & more
- **Pre-validated conjugates** — antibodies, streptavidin, biotin, annexin V
- **Spectral channels matched** for high-parameter flow and multiplex imaging panels

## mFLUOR™ DYE LASER MAP

Dyes plotted at emission peak; dot color approximates each dye's emission wavelength.



## SWITCH TO mFLUOR™

Spectrally matched, laser-validated replacements for common violet- and UV-laser dyes.

| If you currently use this dye... | Try this mFluor™ replacement                                                   |
|----------------------------------|--------------------------------------------------------------------------------|
| BD Horizon™ V450                 | mFluor™ Violet 430, mFluor™ Violet 450                                         |
| BD Horizon™ V500                 | mFluor™ Violet 490, mFluor™ Violet 500, mFluor™ Violet 505, mFluor™ Violet 510 |
| Pacific Blue™                    | mFluor™ Violet 450                                                             |
| Pacific Green™                   | mFluor™ Violet 490, mFluor™ Violet 500, mFluor™ Violet 505, mFluor™ Violet 510 |
| Pacific Orange™                  | mFluor™ Violet 540, mFluor™ Violet 545, mFluor™ Violet 550                     |

# mFluor™ Dyes – Technical Specifications

| mFluor™ Dye                        | Ex (nm) | Em (nm) | QY   | EC (M <sup>-1</sup> cm <sup>-1</sup> ) | Stokes Shift (nm) | Emission Color |
|------------------------------------|---------|---------|------|----------------------------------------|-------------------|----------------|
| <b>UVB Laser • 320 nm</b>          |         |         |      |                                        |                   |                |
| mFluor™ UVB 370                    | 324     | 368     | N/D  | 42,734                                 | 44                | Ultraviolet    |
| mFluor™ UVB 460                    | 325     | 459     | N/D  | 16,618                                 | 134               | Blue           |
| <b>UV Laser • 355 nm</b>           |         |         |      |                                        |                   |                |
| mFluor™ UV 375                     | 351     | 387     | 0.94 | 40,000                                 | 36                | Violet         |
| mFluor™ UV 405                     | 343     | 407     | N/D  | 60,000                                 | 64                | Violet         |
| mFluor™ UV 420                     | 353     | 421     | N/D  | 75,000                                 | 68                | Blue-Violet    |
| mFluor™ UV 440                     | 346     | 430     | N/D  | N/D                                    | 84                | Blue-Violet    |
| mFluor™ UV 455                     | 357     | 461     | 0.42 | 20,000                                 | 104               | Blue           |
| mFluor™ UV 460                     | 358     | 456     | 0.86 | 15,000                                 | 98                | Blue           |
| mFluor™ UV 520                     | 374     | 524     | N/D  | 80,000                                 | 150               | Green          |
| mFluor™ UV 540                     | 373     | 560     | 0.35 | 90,000                                 | 187               | Yellow-Green   |
| mFluor™ UV 595                     | 355     | 594     | N/D  | 140,000                                | 239               | Yellow-Orange  |
| mFluor™ UV 610                     | 368     | 609     | 0.25 | 90,000                                 | 241               | Orange         |
| mFluor™ UV 780                     | 353     | 783     | N/D  | 250,000                                | 430               | Near-Infrared  |
| <b>UVA Laser • 385 nm</b>          |         |         |      |                                        |                   |                |
| mFluor™ UVA 550                    | 385     | 552     | N/D  | 25,400                                 | 167               | Yellow-Green   |
| <b>Violet Laser • 405 nm</b>       |         |         |      |                                        |                   |                |
| mFluor™ Violet 430                 | 410     | 424     | N/D  | 60,000                                 | 14                | Blue-Violet    |
| mFluor™ Violet 450                 | 405     | 445     | 0.81 | 35,000                                 | 40                | Blue-Violet    |
| mFluor™ Violet 470                 | 430     | 479     | N/D  | N/D                                    | 49                | Blue           |
| mFluor™ Violet 480                 | 404     | 475     | N/D  | 40,000                                 | 71                | Blue           |
| mFluor™ Violet 490                 | 387     | 488     | N/D  | N/D                                    | 101               | Blue           |
| mFluor™ Violet 500                 | 410     | 501     | 0.81 | 25,000                                 | 91                | Cyan           |
| mFluor™ Violet 505                 | 393     | 504     | 0.45 | 40,000                                 | 111               | Cyan           |
| mFluor™ Violet 510                 | 408     | 505     | 0.86 | 25,000                                 | 97                | Cyan           |
| mFluor™ Violet 530                 | 404     | 525     | N/D  | 20,000                                 | 121               | Green          |
| mFluor™ Violet 540                 | 402     | 535     | 0.21 | 18,000                                 | 133               | Green          |
| mFluor™ Violet 545                 | 393     | 543     | 0.15 | 20,000                                 | 150               | Green          |
| mFluor™ Violet 550                 | 421     | 550     | 0.31 | 90,000                                 | 129               | Yellow-Green   |
| mFluor™ Violet 575                 | 395     | 576     | N/D  | 20,000                                 | 181               | Yellow-Green   |
| mFluor™ Violet 590                 | 424     | 591     | 0.22 | 90,000                                 | 167               | Yellow-Orange  |
| mFluor™ Violet 610                 | 421     | 612     | 0.30 | 90,000                                 | 191               | Orange         |
| <b>Blue Laser • 488 nm</b>         |         |         |      |                                        |                   |                |
| mFluor™ Blue 570                   | 502     | 565     | N/D  | 120,000                                | 63                | Yellow-Green   |
| mFluor™ Blue 580                   | 485     | 580     | N/D  | 40,000                                 | 95                | Yellow-Orange  |
| mFluor™ Blue 585                   | 491     | 578     | N/D  | 45,000                                 | 87                | Yellow-Green   |
| mFluor™ Blue 590                   | 499     | 589     | 0.15 | 81,000                                 | 90                | Yellow-Orange  |
| mFluor™ Blue 615                   | 510     | 615     | N/D  | 40,000                                 | 105               | Orange         |
| mFluor™ Blue 620                   | 499     | 616     | 0.18 | 98,000                                 | 117               | Orange         |
| mFluor™ Blue 630                   | 470     | 632     | N/D  | 49,000                                 | 162               | Red            |
| mFluor™ Blue 659                   | 501     | 659     | N/D  | 40,000                                 | 158               | Red            |
| <b>Yellow-Green Laser • 561 nm</b> |         |         |      |                                        |                   |                |
| mFluor™ Green 615                  | 530     | 612     | N/D  | 40,000                                 | 82                | Orange         |
| mFluor™ Green 620                  | 528     | 623     | N/D  | 50,000                                 | 95                | Red            |
| <b>Red Laser • 640 nm</b>          |         |         |      |                                        |                   |                |
| mFluor™ Red 780                    | 631     | 767     | N/D  | 90,000                                 | 136               | Near-Infrared  |