

BD Life Sciences Relative Fluorochrome Brightness

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This table provides general guidance with respect to the relative capability of different fluorochromes to resolve dimly stained populations; it is not a representation of absolute fluorescence. Rankings were determined by comparing the stain index (resolution) of cells stained with multiple formats on several clones run on a variety of flow cytometers. Many factors can influence the relative fluorochrome/reagent performance on a given instrument, including laser power, PMT voltage, optical filters, antibody clone and biological sample.

| | | Fluorochrome | | | |
|-------|--------------------------|---|--|--|--|
| | | Very Bright | Bright | Moderate | Dim |
| Laser | Ultraviolet (355 nm) | | BD Horizon™ BUV563 BD Horizon™ BUV615 BD Horizon™ BUV661 BD Horizon™ BUV737 | BD Horizon™ BUV395 BD Horizon™ BUV496 | BD Horizon™ BUV805 |
| | Violet (405 nm) | BD Horizon™ BV421 BD Horizon™ BV650 BD Horizon™ BV711 | BD Horizon™ BV480 BD Horizon™ BV605 BD Horizon™ BV786 | BD Horizon™ BV510 BD Horizon™ BV750 | BD Horizon™ V450 BD Horizon™ V500 |
| | Blue (488 nm) | BD Horizon™ BB515 BD Horizon™ BB700 BD Horizon™ PE-CF594 PE-Cy™5 | PE PE-Cy™7 | FITC Alexa Fluor® 488 PerCP-Cy™5.5 | PerCP |
| | Yellow/Green (561 nm) | PE BD Horizon™ PE-CF594 PE-Cy™5 PE-Cy™7 | | | |
| | Red (640 nm) | | APC Alexa Fluor® 647 BD Horizon™ APC-R700 BD Horizon™ R718 | | Alexa Fluor® 700 APC-H7 APC-Cy™7 |

Class 1 Laser Product.
For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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BD Life Sciences Fluorochrome Specifications

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| Fluorochrome | Fluorescence Emission Color | Ex-Max (nm) | Excitation Laser Line (nm) [†] | Em-Max (nm) | Analyzers | | | | Sorters | |
|-----------------------------|--------------------------------|-------------|--|-------------|---------------|--------------------|-----------------------------------|-----------------------------------|--------------------------------|--------------------|
| | | | | | BD Accuri™ C6 | BD FACSCelesta™*** | BD FACSymphony™ Product Family | BD LSRFortessa™ Product Family | BD FACSAria™ Product Family | BD FACSMelody™**** |
| BD Horizon™ BUV395 | Violet | 348 | 355 | 395 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV421 | Blue | 407 | 405 | 421 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ V450 | Blue | 404 | 405 | 448 | ● | ● | ● | ● | ● | ● |
| Pacific Blue™ | Blue | 401 | 405 | 452 | ● | ● | ● | ● | ● | ● |
| Hoechst 33342 | Blue | 350 | 355, 375 | 461 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV480 | Green | 436 | 405 | 478 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV496 | Green | 351 | 355 | 491 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ V500 | Green | 415 | 405 | 500 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV510 | Green | 405 | 405 | 510 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BB515 | Green | 490 | 488 | 515 | ● | ● | ● | ● | ● | ● |
| Alexa Fluor® 488 | Green | 495 | 488 | 519 | ● | ● | ● | ● | ● | ● |
| FITC | Green | 494 | 488 | 520 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV563 | Green | 351 | 355 | 560 | ● | ● | ● | ● | ● | ● |
| PE | Yellow | 496, 564 | 488, 532, 561 | 578 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV605 | Orange | 407 | 405 | 605 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ PE-CF594 | Orange | 496, 564 | 488, 532, 561 | 612 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV615 | Orange | 350 | 561 | 616 | ● | ● | ● | ● | ● | ● |
| PI | Orange | 351 | 488, 532, 561 | 617 | ● | ● | ● | ● | ● | ● |
| 7-AAD | Red | 543 | 488, 532, 561 | 647 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV650 | Red | 407 | 405 | 650 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV661 | Red | 351 | 355 | 657 | ● | ● | ● | ● | ● | ● |
| APC | Red | 650 | 633, 635, 640 | 660 | ● | ● | ● | ● | ● | ● |
| PE-Cy™5 | Red | 496, 564 | 488, 532, 561 | 667 | ● | ● | ● | ● | ● | ● |
| Alexa Fluor® 647 | Red | 650 | 633, 635, 640 | 668 | ● | ● | ● | ● | ● | ● |
| PerCP [†] | Red | 482 | 488, 532 | 675 | ● | ● | ● | ● | ● | ● |
| PerCP-Cy™5.5 | Red | 482 | 488, 532 | 676 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BB700 | Red | 485 | 488 | 693 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ APC-R700 | Far Red | 652 | 633, 635, 640 | 711 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV711 | Far Red | 407 | 405 | 711 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ R718 | Far Red | 695 | 640, 628 | 718 | ● | ● | ● | ● | ● | ● |
| Alexa Fluor® 700 | Far Red | 696 | 633, 635, 640 | 722 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV737 | Far Red | 350 | 355 | 737 | ● | ● | ● | ● | ● | ● |
| BD Horizon Brilliant™ BV750 | Far Red | 405 | 405 | 745 | ● | ● | ● | ● | ● | ● |
| PE-Cy™7 | Infrared | 496, 564 | 488, 532, 561 | 778 | ● | ● | ● | ● | ● | ● |
| APC-Cy™7 | Infrared | 650 | 633, 635, 640 | 779 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BV786 | Infrared | 407 | 405 | 786 | ● | ● | ● | ● | ● | ● |
| BD Horizon™ BUV805 | Infrared | 351 | 355 | 803 | ● | ● | ● | ● | ● | ● |
| BD® APC-H7 | Infrared | 650 | 633, 635, 640 | 782 | ● | ● | ● | ● | ● | ● |

* Capable of detecting up to 8 colors simultaneously (488-nm laser available on all configurations; 405-nm and 640-nm lasers available on select configurations).

** Capable of detecting up to 12 colors simultaneously (488-nm and 405-nm lasers available on all configurations; 355-nm, 561-nm, and 640-nm lasers available on select configurations).

*** Capable of detecting up to 9 colors simultaneously (488-nm laser available on all configurations; 405-nm and 640-nm lasers available on select configurations).

† The excitation laser line represents commonly used lasers that excite the fluorochrome. It does not necessarily reflect the lasers available for each particular instrument.

‡ Sensitivity for PerCP with high-power lasers (>25 mW) is reduced and is only recommended for known highly expressed markers.

