

# CF™ Dyes Quick Reference Table

CF™ dye	$\lambda_{ex}$ (nm)	$\lambda_{em}$ (nm)	Excitation source*	Replacement for	Advantages
CF™350	347	448	UV	Alexa Fluor® 350, AMCA, DyLight® 350	<ul style="list-style-type: none"> <li>Brightest blue fluorescent conjugates for 350 nm excitation</li> <li>Highly water-soluble and pH insensitive</li> </ul>
CF™405S	404	431	405 nm laser	Alexa Fluor® 405, Cascade Blue®, DyLight® 405	<ul style="list-style-type: none"> <li>Better compatibility with common instruments</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™405M	408	452	405 nm laser	BD Horizon™ V450, eFluor® 450, Pacific Blue®	<ul style="list-style-type: none"> <li>More photostable than Pacific Blue® dye</li> <li>Less spill-over in the 525/50 green channel</li> <li>Highly water-soluble</li> </ul>
CF™488A	490	515	488 nm laser	ATTO 488, Alexa Fluor® 488, Cy®2, DyLight® 488, FAM, FITC, Fluorescein	<ul style="list-style-type: none"> <li>Yields biologically more specific antibody conjugates and less spill-over fluorescence in the red channel than Alexa Fluor® 488</li> <li>Extremely photostable</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™514	516	548	488 nm laser	Alexa Fluor® 514	<ul style="list-style-type: none"> <li>Green fluorophore that can be distinguished from CF™488A by spectral unmixing</li> <li>Extremely photostable</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™532	527	558	532 nm laser	AlexaFluor® 532, ATTO 532	<ul style="list-style-type: none"> <li>Significantly brighter than Alexa Fluor® 532</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™543	541	560	532, 543, or 546 nm laser	Alexa Fluor® 546, Tetramethylrhodamine (TAMRA)	<ul style="list-style-type: none"> <li>Significantly brighter than Alexa Fluor® 546</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™555	555	565	532, 543, 546,, 555, or 568 nm laser	Alexa Fluor® 555, ATTO 550, Cy®3, DyLight® 549, TRITC	<ul style="list-style-type: none"> <li>Brighter than Cy®3</li> </ul>
CF™568	562	583	532, 543, 546, 555, or 568 nm laser	Alexa Fluor® 568, ATTO 565, Rhodamine Red	<ul style="list-style-type: none"> <li>Optimized for the 568 nm line of the Ar-Kr mixed-gas laser</li> <li>Brighter and more photostable than Alexa Fluor 568</li> </ul>
CF™594	593	614	532, 543, 546, 555, or 568 nm laser	Alexa Fluor® 594, ATTO 594, DyLight® 594, Texas Red®	<ul style="list-style-type: none"> <li>Yields the brightest conjugates among spectrally similar dyes</li> <li>Extremely photostable</li> </ul>
CF™620R	617	639	633 or 635 nm laser	LightCycler® Red 640	<ul style="list-style-type: none"> <li>Highly fluorescent</li> <li>Extremely photostable and highly water-soluble</li> </ul>
CF™633	630	650	633 or 635 nm laser	Alexa Fluor® 633, Alexa Fluor® 647, Cy®5, DyLight® 633	<ul style="list-style-type: none"> <li>Yields the brightest antibody conjugates among spectrally similar dyes when excited at 633 nm or the 635 nm</li> <li>Far more photostable than Alexa Fluor® 647</li> <li>Highly water-soluble</li> </ul>
CF™640R	642	662	633, 635, or 640 nm laser	Alexa Fluor® 647, ATTO 647N, Cy®5, DyLight® 649	<ul style="list-style-type: none"> <li>Has the best photostability among dyes with Cy®5-like spectra</li> <li>Yields highly fluorescent protein conjugates</li> <li>Very water-soluble and pH-insensitive</li> </ul>
CF™647	650	665	633, 635, or 640 nm laser	Alexa Fluor® 647, ATTO 647N, Cy®5, DyLight® 649	<ul style="list-style-type: none"> <li>Brighter than Cy®5</li> <li>Highly water-soluble and pH-insensitive</li> </ul>
CF™660C	667	685	633, 635, or 640 nm laser	Alexa Fluor® 660	<ul style="list-style-type: none"> <li>Much brighter and more photostable than Alexa Fluor® 660</li> <li>Highly water-soluble and pH insensitive</li> </ul>
CF™660R	663	682	633, 635, or 640 nm laser	Alexa Fluor® 660	<ul style="list-style-type: none"> <li>Brighter than Alexa Fluor® 660</li> <li>The most photostable 660 nm dye</li> <li>Highly water-soluble and pH insensitive</li> </ul>
CF™680	681	698	680 or 685 nm laser	Alexa Fluor® 680, Cy®5.5, DyLight® 680, IRDye® 680LT	<ul style="list-style-type: none"> <li>The brightest among spectrally similar 680 nm dyes</li> <li>Superior signal-to-noise ratio in immunostaining</li> <li>Highly water-soluble and pH-insensitive</li> <li>Compatible with LI-COR Odyssey® System</li> </ul>
CF™680R	680	701	680 or 685 nm laser	Alexa Fluor® 680, Cy®5.5, DyLight® 680, IRDye® 680LT	<ul style="list-style-type: none"> <li>The most photostable 680 nm dye</li> <li>Suitable for labeling nucleic acids and small biomolecules</li> <li>Highly water-soluble and pH-insensitive</li> <li>Compatible with LI-COR Odyssey® System</li> </ul>
CF™750	755	777	680 or 685 nm laser	Alexa Fluor® 750, Cy®7, DyLight® 750, APC-Alexa Fluor® 750, IRDye® 750	<ul style="list-style-type: none"> <li>Exceptionally bright and stable</li> <li>Highly water soluble without bearing excessive charge</li> <li>Better signal-to-noise ratio compared to APC-Alexa Fluor® 750 tandem dye with 633 nm excitation</li> </ul>
CF™770	770	797	785 nm laser	DyLight® 800, IRDye® 800CW	<ul style="list-style-type: none"> <li>Exceptionally bright and stable</li> <li>Highly water soluble without bearing excessive charge</li> <li>Compatible with LI-COR Odyssey® System</li> </ul>
CF™790	784	806	785 nm laser	Alexa Fluor® 790	<ul style="list-style-type: none"> <li>Exceptionally bright and stable</li> <li>Highly water soluble without bearing excessive charge</li> </ul>

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