

# CF™532 Dye

An orange fluorescent dye ideal for the 532 nm laser

## Technical Summary

**Abs/Em Maxima:** 527/558 nm

**Extinction coefficient:** 96,000

**Molecular weight:** ~ 685

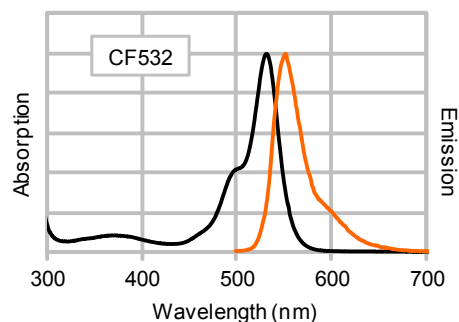
**Flow cytometry laser line:** 532 nm

**Microscopy laser line:** 532 nm

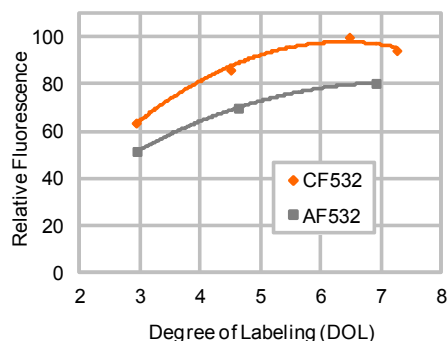
**Direct replacement for:** AlexaFluor® 532, Atto 532

## Advantages

- Significantly brighter than Alexa Fluor® 532
- Highly water-soluble and pH-insensitive



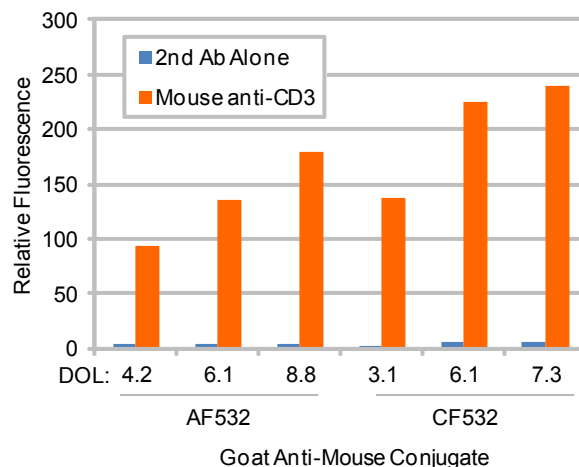
**Figure 1.** Absorption and emission spectra of CF™532 conjugated to goat anti-mouse IgG in PBS.



**Figure 2.** Comparison of relative fluorescence of goat anti-mouse IgG antibody labeled with CF532 or AlexaFluor® 532 at various degrees of labeling (DOL) (number of dye molecules per antibody).

CF™532 is an orange colored fluorescent dye with absorption and emission maxima at 527 and 558 nm, respectively (Figure 1). The dye is based on a new class of rhodamine dyes invented by Biotium scientists. Unlike traditional rhodamine dyes, CF™532 is not only bright and photostable but also highly water-soluble. As a result, CF™532 antibody conjugates retain excellent solubility and yield the brightest fluorescence among antibody conjugates prepared from spectrally similar dyes. For example, CF™532 labeled goat anti-mouse IgG is significantly brighter than the same antibody labeled with Alexa Fluor® 532 at a similar degree of labeling (Figures 2, 3).

A list of CF™532-based products are shown in Table 1. A full selection of secondary antibodies, antibody labeling kits, and other bioconjugates including phalloidins, annexin V and a-bungarotoxin are available for many CF™ dyes. Visit [www.biotium.com](http://www.biotium.com) for details.



**Figure 3.** Flow cytometry analysis of Jurkat cells stained with AlexaFluor® 532 antibody or CF™532 secondary antibody conjugates. Intracellular staining was performed with mouse anti-CD3 antibody followed by goat anti-mouse IgG conjugates. Background was determined by staining with secondary antibody (2nd Ab) alone. Fluorescence was analyzed on a BD FACSCalibur flow cytometer in the FL2 channel. The bars represent the relative fluorescence of the geometric means of the population of cells.



**Biotium, Inc.**

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US orders: 1-800-304-5357

## CF™532 fluorescent reagents

Product Name	Size	Cat. No.
<b>Selected CF™532-Labeled Secondary Antibody Conjugates</b>		
Goat anti-mouse IgG (H+L), whole antibody, 2 mg/mL	0.5 mL	20365-500uL
	50 uL	20365-50uL
Goat Anti-Rabbit IgG (H+L) whole antibody, 2 mg/mL	0.5 mL	20366-500uL
	50 uL	20366-50uL
<b>Other CF™543-Labeled Bioconjugates</b>		
Phalloidin	300 U	00051
Streptavidin	1 mg	29030
<b>CF™543 Reactive Dyes and Labeling Kits</b>		
Maleimide	1 umol	92045
Succinimidyl ester	1 umol	92104
Mix-n-Stain Antibody Labeling Kit, 5-20 ug	1 labeling	92289
Mix-n-Stain Antibody Labeling Kit, 20-50 ug	1 labeling	92290
Mix-n-Stain Antibody Labeling Kit, 50-100 ug	1 labeling	92291
Protein Labeling Kit	3 x 1 mg labelings	92208

Please visit our website at [www.biotium.com](http://www.biotium.com) for a full listing of CF™532 and other CF™ dye products.