CF™405S Dye

Outshining Alexa Fluor® 405!

Technical Summary

Abs/Em Maxima: 404/431 nm
Extinction coefficient: 33,000
Molecular weight: 1,169
Flow cytometry laser line: 405 nm
Microscopy laser line: 405 nm
Direct replacement for: Alexa Fluor® 405, Cascade Blue® dye, DyLight™ 405

Advantages

- Much brighter than Alexa Fluor® 405 due to better compatibility with both excitation and emission windows on common instruments
- Highly water-soluble
- pH-insensitive

CF™405S is a blue fluorescent dye with an absorption peak wavelength that nearly coincides with the 405 nm blue diode laser line (Figure 1). In addition, the emission peak wavelength of the dye well centers within the blue detection window of BD flow cytometers. As a result, flow cytometry analysis using CF™405S dye results in much brighter signal than that using Alexa Fluor™ 405 (Figure 2).

A list of CF™405S-based products are shown in Table 1. A full selection of secondary antibodies, antibody labeling kits, and other bioconjugates including phalloidins, annexin V and α-bungarotoxin are also available for many CF™ dyes. Visit the Biotium website: www.biotium.com for details.

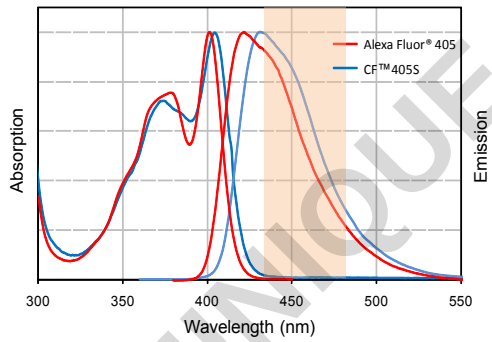


Figure 1. Absorption and emission spectra of CF™405S and Alexa Fluor® 405 conjugated to goat anti-mouse IgG in PBS. The shaded area represents the wavelength window of the 450/50 filter on a BD LSR II flow cytometer.

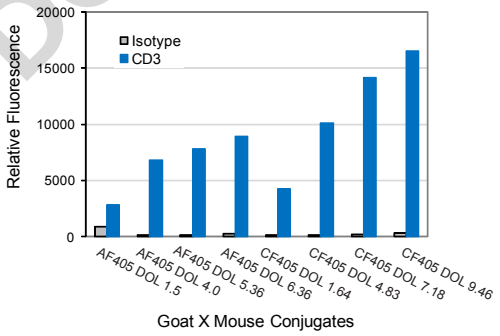


Figure 2. Jurkat cells were stained with intracellular CD3 or isotype control followed by goat anti-mouse IgG conjugates. Fluorescence was analyzed on a BD LSRII (405 laser, Em 450/50 nm). The bars represent the relative fluorescence of the geometric means of the population of cells.

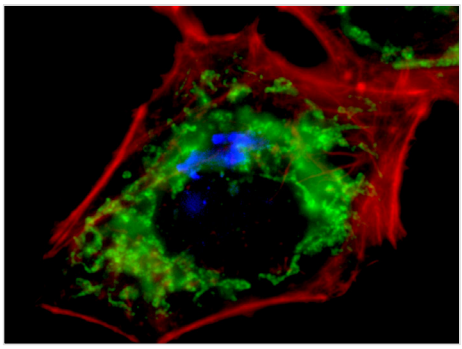


Figure 3. HeLa cells stained with mouse-Golgin 97 and rabbit COX IV followed by goat anti-mouse CF405S (blue Golgi), goat anti-rabbit CF488A (green mitochondria) and CF555 phalloidin (red F-actin).

If you are looking for an antibody conjugate not listed in our catalog, please let us know. We might be able to add it as a new product, or perform a custom conjugation for you.

Biotium, Inc.
3159 Corporate Place, Hayward, CA 94545
www.biotium.com
US orders: 1-800-304-5357

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CF™405S fluorescent reagents

Table 1. CF™405S Product List

Product Name	Size	Cat No.
CF™405S-Labeled Secondary Antibody Conjugates		
Goat Anti-Mouse IgG (H+L) whole antibody, 2 mg/mL	0.5 mL	**20080**
Goat Anti-Rabbit IgG (H+L) whole antibody, 2 mg/mL	0.5 mL	**20082**
Other CF™405S-Labeled Products		
Streptavidin	1 mg	**29032**
CF™405S Reactive Dyes and Labeling Kits		
CF™405S amine	1 mg	**92036**
CF™405S, aminooxy	1 mg	**92055**
CF™405S maleimide	1 µmole	**92030**
CF™405S succinimidyl ester	1 µmole	**92110**
CF™405S SE protein labeling kit	3 labelings (for 1 mg protein each)	**92211**
Mix-n-Stain™ CF™405S antibody labeling kit, 1x(50-100 µg) labeling	1 labeling	**92231**
Mix-n-Stain™ CF™405S antibody labeling kit, 1x(20-50 µg) labeling	1 labeling	**92251**
Mix-n-Stain™ CF™405S antibody labeling kit, 1x(5-20 µg) labeling	1 labeling	**92271**

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Biotium, Inc.
3159 Corporate Place, Hayward, CA 94545
www.biotium.com
US orders: 1-800-304-5357