

# Product Information

## CF™633 hydrazide

**Catalog Number:** 92156

**Unit Size:** 1 mg

**Color and Form:** Dark blue solid.

### Storage and Handling

Store CF™633 hydrazide at ≤ -20°C. Stock solution may be prepared in PBS or Di-H<sub>2</sub>O and can be stored at ≤ -20°C. The shelf-life of the solution is at least 6 months.

### Technical Summary

**Abs/Em Maxima:** 630/650 nm (See Figure 1)

**Extinction coefficient:** 100,000

**Molecular weight:** ~820

**Flow cytometry laser line:** 633, 635 or 640 nm

**Microscopy laser line:** 633, 635 or 640 nm

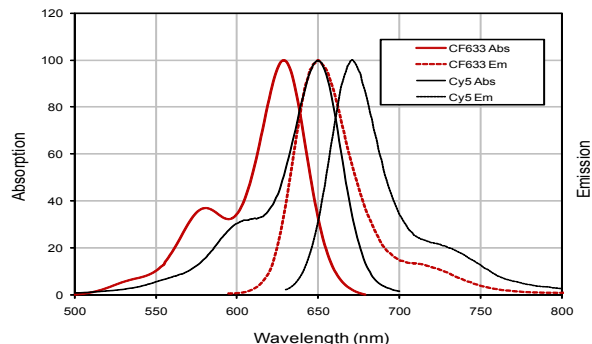
### Product Application

CF™633 hydrazide is a far-red dye with hydrazide group. The dye can be used as a polar tracer or for labeling biomolecules with an aldehyde or ketone group (such as carbohydrate molecules after peroxidation with periodate). CF633 hydrazide can be used as a fixable fluorescent polar tracer for visualizing neuronal cell morphology. CF™633 dye is much brighter than Alexa Fluor® 633 and more photostable than Alexa Fluor 647, making it the best far-red dye for fluorescence detection.

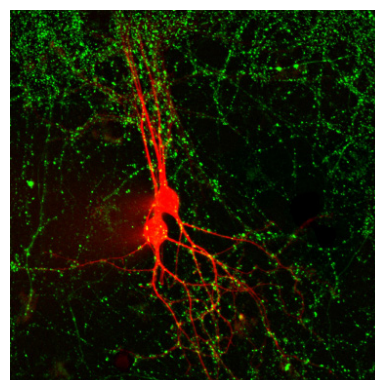
Our CF™ hydrazides are bright, extremely water-soluble and nontoxic. These properties make the dye an excellent fluorescent tracer for visualizing the fine structures of neurons by staining the cytoplasm of the cells (Figure 2). The dye can be introduced into cells by microinjection.

\*CF™ dye technology is covered by pending US and international patents.

\*\*Alexa Fluor is a registered trademark of Invitrogen, Corp.; Cy is a trademark of GE Healthcare.



**Figure 1.** Absorption and emission spectra of goat anti-mouse IgG conjugates labeled with CF™633 and Cy™5 in PBS.



**Figure 2.** Rat hippocampal neurons stained with SynaptoGreen C4 (also called FM1-43, cat# 70020) and CF647 hydrazide (cat# 92136). SynaptoGreen C4 stains synaptic vesicles (green) while CF647 hydrazide stains the cell bodies (red). Courtesy of Hang Zhou from professor Guosong Liu's lab in Tsinghua University.

### Other Related Products

You may also be interested in the following related products from Biotium:

- A full selection CF™ dyes and CF™ antibody conjugates
- CF™ dye-labeled  $\alpha$ -bungarotoxin conjugates
- FM and AM nerve terminal dyes (e.g., FM1-43, AM1-43 and FM4-64, etc.)
- TTX
- Fluo-3 and other calcium indicators
- Membrane potential dyes

Please visit the Biotium website at [www.biotium.com](http://www.biotium.com) for details.