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# **Product Information**

## CF® Dye Hydrazides

Unit Size: 1 mg

#### **Technical Summary**

Cat. No.	CF® Dye	Abs <sub>max</sub> (nm)	Em <sub>max</sub> (nm)	Extinction coefficient	MW
92151	CF®350	347	448	18,000	~495
92183	CF®405S	404	431	33,000	~584
96063	CF®430	426	498	40,000	~443
96064	CF®440	440	515	40,000	~720
92152	CF®488A	490	515	70,000	~928
92153	CF®555	555	565	150,000	~901
92154	CF®568	562	583	100,000	~700
92158	CF®594	593	614	115,000	~730
92156	CF®633	630	650	100,000	~835
92157	CF®640R	642	662	105,000	~846
92136	CF®647	650	665	240,000	~1128
96024	CF®660R	663	682	100,000	~901
96025	CF®680R	680	701	140,000	~925

#### Storage and Handling

Store CF® dye hydrazide at  $\leq$  -20°C, protected from light. Product is stable for at least 6 months from date of receipt if stored as recommended. Stock solution may be prepared in PBS or dH<sub>2</sub>O and can be stored at  $\leq$  -20°C for at least 6 months.

#### **Product Description**

CF® dye hydrazide is a fluorescent dye with a hydrazide group. Our CF® dye hydrazides are bright, extremely water-soluble and nontoxic. These properties make the dyes excellent polar tracers for neurons (Figure 1), or for gap junction studies. The dyes can be introduced into cells by microinjection.

Hydrazides also can be used for labeling aldehyde or ketone groups, such as carbohydrate molecules after peroxidation with periodate. However, for this application we recommend using CF® dye aminooxy forms, which are more reactive toward these groups than hydrazide forms.



Figure 1. Rat hippocampal neurons stained with SynaptoGreen C4 (also called FM1-43, cat# 70020) and CF®647 hydrazide (cat# 92136). SynaptoGreen C4 stains synaptic vesicles (green) while CF®647 hydrazide stains the cell bodies (red). Courtesy of Hang Zhou from professor Guosong Liu's lab, Tshinghua University, Beijing, China.

### Other Related Products

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

- A full selection CF® reactive dyes and CF® dye 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
- PathoGreen<sup>™</sup> histofluorescent stain for neuronal degeneration

Please visit www.biotium.com to view our full selection of innovative products for life science research.

CF dye technology is covered by pending U.S. and international patents. Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use.