

## CF® Dye BCN

CF® Dyes with a BCN group react with azides via a copper-free bioorthogonal reaction to label target molecules for surface staining of live cells or cell extracts. Membrane-permeant CF® Dye BCN conjugates for intracellular labeling reactions are also available.



### Product attributes

Functional group	BCN
Chemical reactivity (reacts with)	Azides/Picolyl azides
Storage Conditions	Store at -10 to -35 °C, Protect from light

## Product Description

CF® Dye BCN (bicyclo[6.1.0]nonyne) derivatives are alternatives to fluorescently labeled DIBO and DBCO. They react with azides to form 1,2,3-triazole by copper-free bioorthogonal 1,3-dipolar Huisgen cycloaddition. BCN dyes are useful for fluorescent labeling of live cell surface or cell extracts, particularly when there are concerns about native protein function loss with copper. Membrane-permeant CF® Dye BCN options are also available for intracellular labeling reactions.

- Fluorescent labeling of azide groups on target molecules via copper-free bioorthogonal chemistry.
- Alternative to fluorescently labeled DIBO and DBCO.
- Suitable for surface or intracellular labeling of live cells or cell extracts.
- Bright, photostable and water-soluble CF® Dyes are excellent options for fluorescent labeling.
- Available in several CF® Dye options including membrane-permeant forms for intracellular labeling.

Biotium also offers reactive [CF® Dye DBCO](#) derivatives which react more rapidly with azide groups than other cyclooctynes through strain-promoted azide-alkyne cycloaddition (SPAAC).

### Superior CF® Dyes

Biotium's next-generation CF® Dyes were designed to be highly water-soluble with advantages in brightness and photostability compared to Alexa Fluor®, DyLight®, and other fluorescent dyes. Learn more about [CF® Dyes](#). For more information download the [CF® Dye Brochure](#).

## CF® Dye BCN

CF® Dye BCN	Ex/Em	Membrane Permeability	Size	Catalog No.	Dye Features
<a href="#">CF@405S</a>	404/431 nm	Impermeant	0.5 mg	<a href="#">92113</a>	<a href="#">CF@405S Features</a>
<a href="#">CF@405M</a>	408/452 nm	Impermeant	0.5 mg	<a href="#">92114</a>	<a href="#">CF@405M Features</a>
<a href="#">CF@440</a>	440/515 nm	Permeant	0.5 mg	<a href="#">96070</a>	<a href="#">CF@440 Features</a>
<a href="#">CF@488A</a>	490/515 nm	Impermeant	0.5 mg	<a href="#">92075</a>	<a href="#">CF@488A Features</a>
<a href="#">CF@500</a>	502/511 nm	Permeant	0.5 mg	<a href="#">96026</a>	
<a href="#">CF@568</a>	562/583 nm	Impermeant	0.5 mg	<a href="#">92076</a>	<a href="#">CF@568 Features</a>
<a href="#">CF@594</a>	593/614 nm	Impermeant	0.5 mg	<a href="#">92077</a>	<a href="#">CF@594 Features</a>
<a href="#">CF@640R</a>	642/662 nm	Impermeant	0.5 mg	<a href="#">92078</a>	<a href="#">CF@640R Features</a>
<a href="#">CF@647</a>	650/665 nm	Impermeant	0.5 mg	<a href="#">96059</a>	<a href="#">CF@647 Features</a>
<a href="#">CF@650</a>	653/673 nm	Permeant	0.5 mg	<a href="#">96027</a>	
<a href="#">CF@680</a>	681/698 nm	Impermeant	0.5 mg	<a href="#">96058</a>	<a href="#">CF@680 Features</a>
<a href="#">CF@680R</a>	680/701 nm	Impermeant	0.5 mg	<a href="#">92079</a>	<a href="#">CF@680R Features</a>

## References

1. Canadian Journal of Chemistry (2019),97(1):1-6. [DOI: 10.1139/cjc-2018-0253](#).
2. eLife (2019),8: e50776. [DOI: 10.7554/eLife.50776.001](#)
3. Chem. Mater. (2019), 31:8035–8043. [DOI: 10.1021/acs.chemmater.9b02485](#)
4. Advanced functional materials, (2016),26(21):3612-3620. [DOI: 10.1002/adfm.201505329](#)

Download a list of [CF® dye references](#).

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