Glowing products for science

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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
CF®405S	404/431 nm	Impermeant	0.5 mg	92113	CF®405S Features
CF®405M	408/452 nm	Impermeant	0.5 mg	92114	CF®405M Features
CF®440	440/515 nm	Permeant	0.5 mg	96070	CF®440 Features
CF®488A	490/515 nm	Impermeant	0.5 mg	92075	CF®488A Features
CF®500	502/511 nm	Permeant	0.5 mg	96026	
CF®568	562/583 nm	Impermeant	0.5 mg	92076	CF®568 Features
CF®594	593/614 nm	Impermeant	0.5 mg	92077	CF®594 Features
CF®640R	642/662 nm	Impermeant	0.5 mg	92078	CF®640R Features
CF®647	650/665 nm	Impermeant	0.5 mg	96059	CF®647 Features
CF®650	653/673 nm	Permeant	0.5 mg	96027	
CF®680	681/698 nm	Impermeant	0.5 mg	96058	CF®680 Features
CF®680R	680/701 nm	Impermeant	0.5 mg	92079	CF®680R Features

References

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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.