

Product Information

CF® Dye DBCO

See [product page](#) for a full list of product names and catalog numbers.

Unit Size: 1 mg

Storage and Handling

Store at -20°C, protected from light. Product is stable for at least 12 months from date of receipt when stored as recommended. Stock solutions may be prepared in DMF or DMSO and can be stored at 4°C, protected from light, for at least 12 months.

Color and Form: Lyophilized solid

Product Technical Information

See product page for spectral properties, molecular weights, and other dye-specific technical information.

Product Description

Dibenzocyclooctyne (i.e., DBCO, ADIBO) is among the most reactive cycloalkynes for copper-free click reaction by strain-promoted azide-alkyne cycloaddition (SPAAC). The rate of interaction of DBCO with azides is significantly faster than that of other cyclooctynes, as well as Cu-catalyzed click reaction (CuAAC). Unlike other cyclooctynes, DBCO does not interact with tetrazines, making it suitable for use in bioorthogonal reactions with trans-cyclooctenes and tetrazines.

Reagents containing a DBCO group have become widely used in bioconjugation, labeling, and chemical biology.¹⁻³ DBCO conjugation reactions can be performed in aqueous buffers or in organic solvents, depending on the properties of the substrate molecules.

Biotium offers a wide selection of CF® Dyes with the DBCO reactive group. Our outstanding series of CF® Dyes offers superior brightness, photostability, and signal-to-noise when compared to other commercially available fluorescent dyes.

DBCO conjugate applications are reported in published literature.¹⁻³ We recommend consulting the literature to find a protocol that will be suitable for your application.

References

1. [Biomaterials 128, 119305 \(2019\)](#); 2. [Sci Rep 12, 10564 \(2022\)](#);
3. [PNAS 120, e2302342120 \(2023\)](#).

Related Products

Cat. No.	Product
92080... 96000	CF® Dye Azide
92086... 96006	CF® Dye Alkyne
92020... 96108	CF® Dye Maleimides
96028- 96039	CF® Dye Methyltetrazine
96040- 96051	CF® Dye TCO
96054... 96097	CF® Dye Tetrazine
92075... 96070	CF® Dye BCN
92103... 97502	CF® Dye SE/TFP esters
96007... 96007	CF® Dye Picolyl Azide
22004	Ultrafiltration Vial, 10K MWCO (5 per pack)
22018	Ultrafiltration Vial, 3K MWCO (5 per pack)
90082	DMSO, Anhydrous
22013	Bovine Serum Albumin, Fraction V
22014	Bovine Serum Albumin, 30% Solution

Please visit our website at www.biotium.com for information on our life science research products, including fluorescent CF® Dye antibody conjugates and reactive dyes, apoptosis reagents, fluorescent probes, and kits for cell biology research.

CF® Dyes are covered by US and international patents.

Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use.