

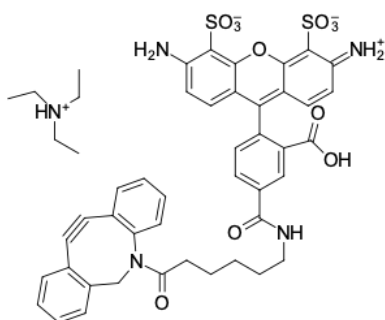
AF 488 DBCO

<http://www.lumiprobe.com/p/af-488-dbc-5>

Dibenzocyclooctyne (DBCO, DBCO, ADIBO) is one of the most reactive cycloalkynes for copper-free click reaction (SPAAC, strain-promoted azide-alkyne cycloaddition). The rate of interaction of DBCO with azides is significantly higher than that of other cyclooctynes, as well as Cu-catalyzed click reaction (CuAAC). Unlike other cyclooctynes, DBCO does not interact with [tetrazines](#), which makes it possible to use it in bioorthogonal reactions together with trans-cyclooctenes and tetrazines.

AF 488 is sulfonated rhodamine, a bright, photostable, and hydrophilic fluorophore that emits in the green channel. The absorption maximum is 495 nm. The emission maximum is 519 nm.

AF 488 DBCO allows fluorescent labeling of azide-containing biomolecules inside living cells, whole organisms, and inanimate samples.



Structure of AF 488 DBCO, 5-isomer

General properties

Appearance:	orange solid
Molecular weight:	936.08
Molecular formula:	$C_{48}H_{49}N_5O_{11}S_2$
Solubility:	water, DMSO, DMF, methanol
Quality control:	NMR 1H and HPLC-MS (95+%)
Storage conditions:	24 months after receipt at $-20^\circ C$ in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. Avoid prolonged exposure to light.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	495
Emission maximum, nm:	519
Fluorescence quantum yield:	0.91