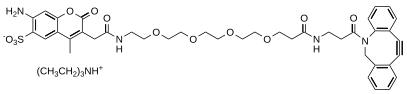
XFD350 PEG4 DBCO

Catalog Number: 70004
Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	920.09
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	343 nm
Emission Wavelength	441 nm

Applications

XFD350, manufactured by AAT Bioquest, is a blue-fluorescent dye that is structurally similar to Alexa Fluor® 350 (Thermo Fisher). The incorporation of a PEG4 spacer enhances its aqueous solubility, while the dye maintains strong absorption and stable fluorescence across a broad pH range (pH 4-11). XFD350 is optimally excited by the 350 nm line of a UV laser, and its moderate brightness and stability make it particularly well-suited for direct imaging of high-abundance targets in both microscopy and flow cytometry applications.

The DBCO derivative of XFD350 is a highly reactive cycloalkyne optimized for copper-free click chemistry (SPAAC, strain-promoted azide-alkyne cycloaddition). This derivative exhibits a higher reaction rate with azides compared to other cyclooctynes and traditional copper-catalyzed azide-alkyne cycloaddition (CuAAC). Importantly, DBCO does not react with tetrazines, making it compatible with bioorthogonal reactions involving trans-cyclooctenes and tetrazines. This feature allows XFD350 PEG4 DBCO to serve as an effective alternative to copper-dependent fluorescent alkynes in environments where copper ions may interfere with biological processes.