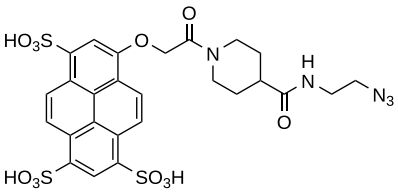
XFD405 azide

Catalog Number: 70013
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	697.71
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	401 nm
Emission Wavelength	421 nm

Applications

XFD405, manufactured by AAT Bioquest, is a blue-fluorescent dye that is structurally similar to Alexa Fluor™ 405 (Thermo Fisher). This dye is water-soluble and optimized for excitation by the 407 nm krypton laser line or the 408 nm violet laser diode, making it suitable for a range of fluorescence-based techniques. XFD405 is pH-insensitive across a wide range (pH 4 - 10) and exhibits minimal quenching when conjugated to proteins, ensuring consistent fluorescence signals in live-cell imaging. With an excitation maximum at 401 nm and emission at 422 nm, XFD405 is well-suited for multicolor flow cytometry and super-resolution microscopy (STORM), providing reliable performance in applications requiring distinct spectral separation and photostability.

The azide derivative of XFD405 is widely used for labeling terminal alkynes on peptides, antibodies, and other biomolecules via click chemistry. It participates in copper-catalyzed azide-alkyne cycloaddition (CuAAC) with alkyne-containing molecules and strain-promoted alkyne-azide cycloaddition (SPAAC) with DBCO- or BCN-containing molecules.