XFD555 azide

Catalog Number: 1723
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	N/A
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	553 nm
Emission Wavelength	568 nm

Applications

XFD555, manufactured by AAT Bioquest, is structurally similar to Alexa Fluor™ 555 (Thermo Fisher). It is a bright orange-fluorescent dye with an excitation optimized for use with either the 488 nm line of the argon-ion laser or the 532 nm line of the frequency-doubled Nd:YAG laser. The high fluorescence quantum yield and high photostability of XFD555 allow for the detection of low-abundance biological structures with great sensitivity. XFD555 demonstrates good aqueous solubility and pH-insensitivity over a broad pH range (pH 4–10), ensuring stable fluorescence generation under varying experimental conditions. XFD555 dye molecules can be attached to proteins at high molar ratios without significant self-quenching, enabling brighter conjugates and more sensitive detection in imaging and flow cytometry.

The azide derivative of XFD555 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.