XFD750 acid

Catalog Number: 1798
Unit Size: 10 mg

Product Details

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

Chemical Properties

Appearance	Solid deep blue
Molecular Weight	999.07
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	752 nm
Emission Wavelength	776 nm

Applications

XFD750, manufactured by AAT Bioquest, is a bright near-infrared fluorescent dye structurally similar to Alexa Fluor™ 750 (Thermo Fisher). It is efficiently excited by the 633 nm laser line and is compatible with the Cy7 filter set, making it well-suited for applications such as fluorescence microscopy and flow cytometry. The dye demonstrates excellent aqueous solubility and maintains pH stability across a broad range (pH 4–10), ensuring reliable and reproducible fluorescence signals under diverse experimental conditions. Its long-wavelength emission effectively reduces background autofluorescence, enhancing signal-to-noise ratios in complex biological samples, particularly in tissue imaging. Furthermore, XFD750 is widely utilized in stochastic optical reconstruction microscopy (STORM), providing exceptional performance in both dSTORM and nSTORM super-resolution imaging techniques.

XFD750 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing XFD750 conjugates. It is also suitable for use as a control in confocal microscopy, immunocytochemistry (ICC), high-content screening (HCS), flow cytometry, and live cell imaging applications. Furthermore, it can be utilized in the synthesis of activated esters and STP and can be coupled to hydrazines, hydroxylamines, or amines in aqueous solutions using water-soluble carbodiimides (e.g., EDAC). This allows for the conjugation of the dye to amino-containing molecules, such as proteins, antibodies, amine-modified oligonucleotides, and peptides.