XFD633 acid

Catalog Number: 70070
Unit Size: 10 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	632 nm
Emission Wavelength	650 nm

Applications

XFD633, manufactured by AAT Bioquest, is a bright red-fluorescent dye structurally similar to Alexa Fluor™ 633 (Thermo Fisher). It is characterized by its intense brightness, high fluorescence quantum yield and photostability. The dye demonstrates excellent solubility in aqueous solutions and retains pH-independent fluorescence over a broad range (pH 4–11), ensuring consistent performance across diverse experimental conditions. Optimally excited by the 633 nm emission line of He-Ne lasers or the 635 nm diode laser, XFD633 is particularly well-suited for flow cytometry. Its robust and uniform labeling properties yield high signal intensity and reproducibility, making it an ideal choice for advanced fluorescence imaging, flow cytometry, and various fluorescence-based analytical techniques.

XFD633 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing XFD633 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.