

XFD555 acid

Catalog Number: 1796

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	946.99
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.

XFD555 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing XFD555 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.