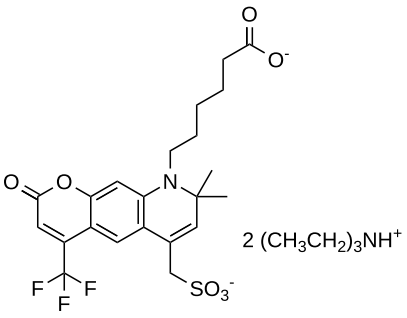
XFD430 acid

Catalog Number: 70020
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	705.88
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	432 nm
Emission Wavelength	540 nm

Applications

XFD430, manufactured by AAT Bioquest, is a green-fluorescent dye that is structurally similar to Alexa Fluor™ 430 (Thermo Fisher). It has excitation and emission maxima of 432 nm and 540 nm, respectively, and is efficiently excited by a 405 nm violet laser. Its large Stokes shift minimizes spectral overlap with blue-emitting fluorophores, significantly improving the signal-to-noise ratio in multiplexed fluorescence assays. XFD430 also exhibits excellent water solubility and remains pH-insensitive across a wide range (pH 4–10), making it well-suited for generating stable, reproducible fluorescence signals in both microscopy and flow cytometry applications.

XFD430 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing XFD430 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.