XFD660 acid

Catalog Number: 70090
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	663 nm
Emission Wavelength	691 nm

Applications

XFD660, manufactured by AAT Bioquest, is a far-red fluorescent dye structurally similar to Alexa Fluor™ 660 (Thermo Fisher). The dye demonstrates high fluorescence quantum yield, photostability, and aqueous solubility, with pH-independent fluorescence across a broad range (pH 4–11), providing consistent performance across diverse experimental conditions.

XFD660 is optimized for red laser excitation and is compatible with flow cytometers equipped with spectral detection systems. It provides robust and uniform labeling with high signal intensity and reproducibility, making it ideal for fluorescence imaging, flow cytometry, and other analytical techniques. XFD660 demonstrates versatility in labeling a wide range of targets, including cell surface, intracellular, and intranuclear antigens. Its spectral properties position it between XFD647 and XFD700, making it a valuable intermediate fluorophore for constructing complex multicolor panels and enabling precise experimental designs in advanced research workflows.

XFD660 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing XFD660 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.