XFD700 amine

Catalog Number: 70113
Unit Size: 1 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	696 nm
Emission Wavelength	719 nm

Applications

XFD700, manufactured by AAT Bioquest, is a near-infrared fluorescent dye structurally similar to Alexa Fluor™ 700 (Thermo Fisher). It is optimally excited by 633–640 nm laser lines and offers a relatively low fluorescence intensity, making it particularly well-suited for direct imaging of high-abundance targets in both microscopy and flow cytometry. This allows researchers to allocate brighter dyes for detecting lower-abundance antigens, improving overall panel design. XFD700 exhibits excellent aqueous solubility and maintains consistent fluorescence stability across a broad pH range (pH 4–10), ensuring robust and reproducible performance under diverse experimental conditions. Its long-wavelength emission effectively minimizes background autofluorescence, leading to enhanced signal-to-noise ratios, especially in complex biological samples such as tissues. In multicolor flow cytometry panels, XFD700 serves as an ideal option between APC and APC-iFluor® 780, enabling better resolution in complex assays.

XFD700 amine is a carbonyl-reactive building block for modifying carboxylic groups in the presence of activators such as EDC or DCC, or activated esters like NHS esters, through the formation of stable amide bonds. Additionally, it can be used as an amine donor for enzymatic transamination labeling.