XFD700 alkyne

Catalog Number: 70115
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.

The alkyne derivative of XFD700 is widely used for labeling azides on peptides, antibodies, and other biomolecules via click chemistry. It participates in copper-catalyzed azide-alkyne cycloaddition (CuAAC) with azide-containing molecules.