

XFD647 amine

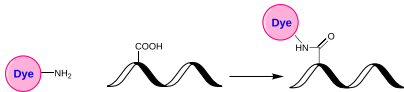
Catalog Number: 1709

Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid blue
Molecular Weight	1129.14
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	650 nm
Emission Wavelength	671 nm

Applications

XFD647, manufactured by AAT Bioquest, is a bright far-red fluorescent dye structurally similar to Alexa Fluor™ 647 (Thermo Fisher). It is efficiently excited by the 594 nm or 633 nm laser lines and is compatible with RFP filters like Cy5, making it well-suited for applications such as fluorescence microscopy and flow cytometry. XFD647 exhibits excellent aqueous solubility and pH stability across a wide range (pH 4–10), ensuring robust signal reproducibility under diverse experimental conditions. The dye enables high-degree conjugation to biomolecules with minimal self-quenching, resulting in enhanced fluorescence intensity and signal stability. Additionally, its high fluorescence quantum yield and superior photostability facilitate the sensitive detection of low-abundance targets, enhancing precision and sensitivity in quantitative fluorescence-based assays.

XFD647 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.