

XFD633 azide

Catalog Number: 70074

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	632 nm
Emission Wavelength	650 nm

Applications

XFD633, manufactured by AAT Bioquest, is a bright red-fluorescent dye structurally similar to Alexa Fluor™ 633 (Thermo Fisher). It is characterized by its intense brightness, high fluorescence quantum yield and photostability. The dye demonstrates excellent solubility in aqueous solutions and retains pH-independent fluorescence over a broad range (pH 4–11), ensuring consistent performance across diverse experimental conditions. Optimally excited by the 633 nm emission line of He-Ne lasers or the 635 nm diode laser, XFD633 is particularly well-suited for flow cytometry. Its robust and uniform labeling properties yield high signal intensity and reproducibility, making it an ideal choice for advanced fluorescence imaging, flow cytometry, and various fluorescence-based analytical techniques.

The azide derivative of XFD633 is widely used for labeling terminal alkynes on peptides, antibodies, and other biomolecules via click chemistry. It participates in copper-catalyzed azide-alkyne cycloaddition (CuAAC) with alkyne-containing molecules and strain-promoted alkyne-azide cycloaddition (SPAAC) with DBCO- or BCN-containing molecules.