

XFD514 alkyne

Catalog Number: 70045

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 856.06

Soluble In DMSO

Chemical Structure

Spectral Properties

Excitation Wavelength 518 nm

Emission Wavelength 543 nm

Applications

XFD514, manufactured by AAT Bioquest, is a green-fluorescent dye structurally similar to Alexa Fluor™ 514 (Thermo Fisher). It is characterized by high photostability and exceptional brightness, making it highly suitable for advanced imaging and flow cytometry applications. The dye is water-soluble and remains pH-insensitive within a broad range (pH 4–10), ensuring consistent fluorescence performance across diverse experimental conditions. XFD514 offers robust and reliable labeling, enabling precise and reproducible results in fluorescence-based assays. It also serves as an effective replacement for rhodamine 6G in applications requiring enhanced performance.

The alkyne derivative of XFD514 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.