

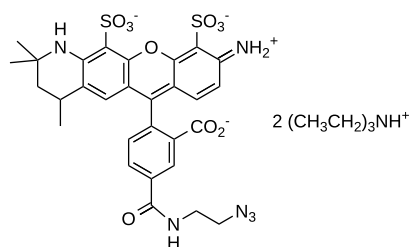
Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	887.08
Soluble In	DMSO



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 azide derivative of XFD514 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.