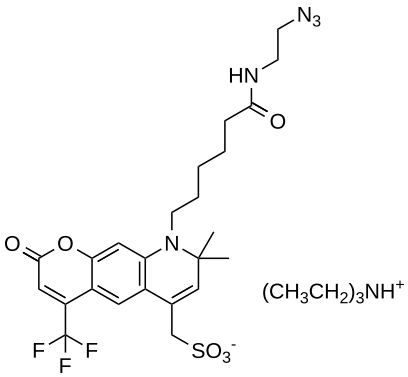
XFD430 azide

Catalog Number: 70024
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	672.76
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	432 nm
Emission Wavelength	540 nm

Applications

XFD430, manufactured by AAT Bioquest, is a green-fluorescent dye that is structurally similar to Alexa Fluor™ 430 (Thermo Fisher). It has excitation and emission maxima of 432 nm and 540 nm, respectively, and is efficiently excited by a 405 nm violet laser. Its large Stokes shift minimizes spectral overlap with blue-emitting fluorophores, significantly improving the signal-to-noise ratio in multiplexed fluorescence assays. XFD430 also exhibits excellent water solubility and remains pH-insensitive across a wide range (pH 4–10), making it well-suited for generating stable, reproducible fluorescence signals in both microscopy and flow cytometry applications.

The azide derivative of XFD430 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.