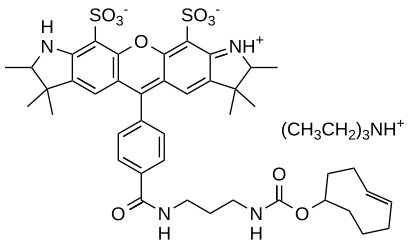
XFD532 TCO

Catalog Number: 1720
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	936.19
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	534 nm
Emission Wavelength	553 nm

Applications

XFD532, manufactured by AAT Bioquest, is structurally similar to Alexa Fluor™ 532 (Thermo Fisher). It is a bright yellow-fluorescent dye with an excitation optimized for use with the 532 nm line of the frequency-doubled Nd:YAG laser. XFD532 demonstrates good aqueous solubility and pH-insensitivity over a broad pH range (pH 4–10), ensuring stable fluorescence generation under varying experimental conditions. This dye is particularly suited for multicolor fluorescence microscopy and flow cytometry, as well as advanced applications in super-resolution imaging techniques such as dSTORM.

XFD532 TCO is particularly useful for labeling tetrazine-modified biomolecules under copper-free conditions. It reacts with tetrazine-functionalized molecules, forming a stable conjugate via a dihydropyrazine moiety. This click reaction is favored over others due to its extremely fast kinetics and higher yields under mild reaction conditions, making it a popular choice for researchers.