

XFD568 TCO

Catalog Number: 70136

Unit Size: 1 mg

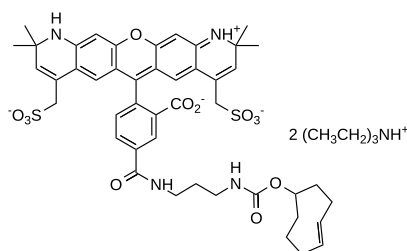
Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	903.03
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	579 nm
Emission Wavelength	603 nm

Applications

XFD568, manufactured by AAT Bioquest, is structurally similar to Alexa Fluor™ 568 (Thermo Fisher). This bright orange-fluorescent dye is efficiently excited by the 568 nm line of the AR-Kr mixed-gas laser and is compatible with RFP filters like Texas Red. It demonstrates excellent solubility in aqueous solutions and is pH-insensitive across a broad range (pH 4–10), ensuring reliable and stable signal generation under diverse experimental conditions. XFD568 is particularly well-suited for multicolor fluorescence microscopy, flow cytometry, and advanced imaging techniques like dSTORM. It can be conjugated to proteins at high molar ratios with minimal self-quenching, resulting in brighter conjugates. Moreover, the superior fluorescence quantum yield and photostability of XFD568 make it ideal for detecting low-abundance biological targets, enabling greater precision and sensitivity in quantitative fluorescence assays.

XFD568 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.