

Unit Size: 1 mg

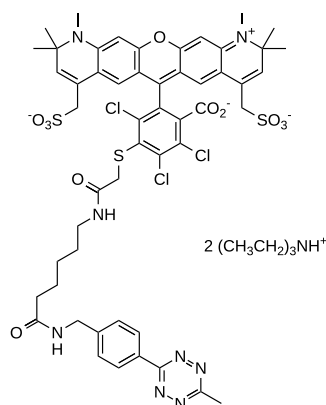
Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	1168.57
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	611 nm
Emission Wavelength	629 nm

Applications

XFD610, manufactured by AAT Bioquest, is a red-fluorescent dye that is structurally similar to Alexa Fluor™ 610 (Thermo Fisher). The dye exhibits high photostability and strong fluorescence, making it well-suited for advanced imaging applications and flow cytometry. Its water solubility and pH-independent fluorescence over a broad range (pH 4–10) ensure consistent performance under diverse experimental conditions. XFD610 enables reproducible labeling with high signal intensity, providing reliable results in fluorescence-based assays. Additionally, it serves as a robust alternative to Texas Red™, offering improved optical properties for experiments requiring enhanced fluorescence output.

XFD610 tetrazine is particularly useful for labeling TCO-modified biomolecules under copper-free conditions. It reacts with TCO-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.