ATTO 610 azide

Catalog Number: 70253
Unit Size: 1 mg

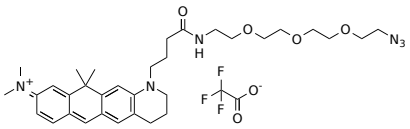
Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	704.79
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	615 nm
Emission Wavelength	632 nm

Applications

ATTO 610 is a carbopyronin-based fluorescent dye known for its strong absorption, high fluorescence quantum yield, and exceptional photostability and thermal stability. It is moderately hydrophilic and optimally excited at wavelengths between 595 and 625 nm. Upon coupling to a substrate, ATTO 610 becomes cationic, carrying a net electrical charge of +1. The dye remains stable under physiological pH conditions and in buffers with a pH of up to 8, though it gradually degrades at higher pH levels. ATTO 610 is ideal for advanced applications in single-molecule detection and high-resolution microscopy techniques, including PALM, dSTORM, and STED microscopy. It is also compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), FRET, and various other biological assays. The azide derivative of ATTO 610 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.