

AATOM™ 610 acid

Catalog Number: 70250

Unit Size: 5 mg

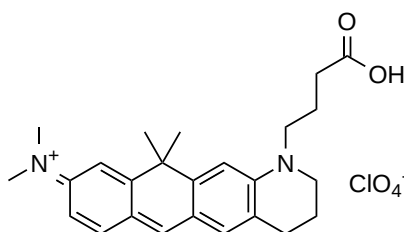
Product Details

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

Chemical Properties

Appearance	Solid blue
Molecular Weight	490.98
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	615 nm
Emission Wavelength	632 nm

Applications

AATOM™ 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, AATOM™ 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. AATOM™ 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.

AATOM™ 610 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 610 conjugates. It is also suitable for use as a control in confocal microscopy, immunocytochemistry (ICC), high-content screening (HCS), flow cytometry, and live cell imaging applications. Furthermore, it can be utilized in the synthesis of activated esters and STP and can be coupled to hydrazines, hydroxylamines, or amines in aqueous solutions using water-soluble carbodiimides (e.g., EDAC). This allows for the conjugation of the dye to amino-containing molecules, such as proteins, antibodies, amine-modified oligonucleotides, and peptides. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.