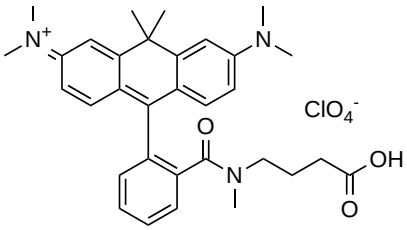
AATOM™ 620 acid

Catalog Number: 70260
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	612.12
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	619 nm
Emission Wavelength	641 nm

Applications

AATOM™ 620 is a bright-red fluorescent dye, characterized by its strong absorption, exceptional photo and thermal stability, and temperature-dependent fluorescence. It demonstrates moderate hydrophilicity and optimal excitation within the 600-630 nm wavelength range. The dye maintains stable fluorescence over a wide pH range (2-11), allowing for its use in diverse experimental conditions. When conjugated to a substrate, AATOM™ 620 becomes cationic, carrying a net positive charge of +1. These properties make AATOM™ 620 particularly suitable for high-precision applications, including single-molecule detection and super-resolution microscopy techniques such as PALM, dSTORM, and STED. Additionally, it is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and various other biological assays.

AATOM™ 620 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 620 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.