

AATOM™ 590 acid

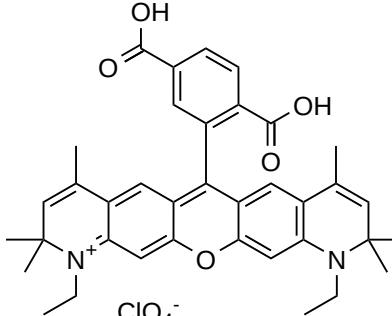
Catalog Number: 70240

Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid purple
Molecular Weight	691.17
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	592 nm
Emission Wavelength	621 nm

Applications

AATOM™ 590 is a rhodamine-based fluorescent dye characterized by its strong absorption, high fluorescence quantum yield, and excellent photostability and thermal stability. It exhibits moderate hydrophilicity and is optimally excited within the 575-610 nm wavelength range. AATOM™ 590 emits in the orange-red region of the visible spectrum, with fluorescence effectively quenched by BHQ®-2 dye. This dye is particularly suited for advanced applications in single-molecule detection and high-resolution microscopy techniques such as PALM, dSTORM, and STED microscopy. Additionally, it is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), FRET, and various other biological assays. AATOM™ 590 is a suitable alternative to Alexa Fluor® 594 for these applications.

AATOM™ 590 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 590 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.