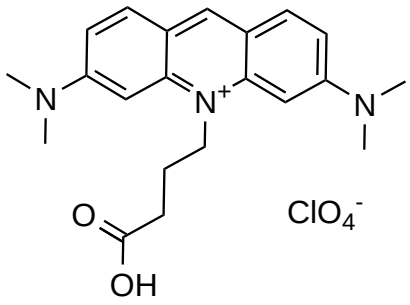
AATOM™ 495 acid

Catalog Number: 70220
Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	451.90
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	497 nm
Emission Wavelength	525 nm

Applications

AATOM™ 495 is a green fluorescent dye derived from acridine orange, known for its strong absorption, high fluorescence quantum yield, excellent photostability, and superior thermal stability. It exhibits moderate hydrophilicity and is highly soluble in polar solvents such as DMF and DMSO, with an optimal excitation range of 465-510 nm. Notably, AATOM™ 495 exhibits intense and long-lived phosphorescence in solid matrices or at low temperatures. This dye is well-suited for advanced applications in single-molecule detection and high-resolution microscopy techniques, such as PALM, dSTORM, and STED microscopy. It is also compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a wide range of other biological assays.

AATOM™ 495 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 495 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.