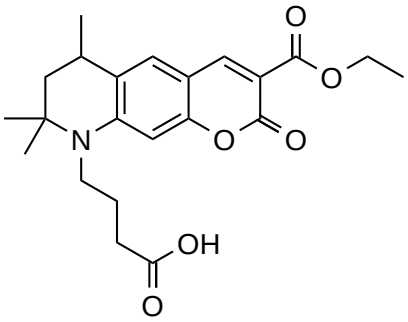
AATOM™ 425 acid

Catalog Number: 70210
Unit Size: 5 mg

Product Details

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

Chemical Properties

Appearance	Solid yellow-green
Molecular Weight	401.46
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	438 nm
Emission Wavelength	484 nm

Applications

AATOM™ 425 is a coumarin-based fluorescent dye characterized by its high fluorescence quantum yield, large Stokes shift, excellent photostability, and low molecular weight. It exhibits moderate hydrophilicity and is optimally excited in the 405-455 nm wavelength range. These properties make AATOM™ 425 particularly suitable for applications in single-molecule detection and high-resolution microscopy techniques, including PALM, dSTORM, and STED microscopy. Additionally, AATOM™ 425 is well-suited for use in flow cytometry (FACS), fluorescence in situ hybridization (FISH), and various other biological assays.

AATOM™ 425 acid is a non-reactive compound that can be employed as a reference standard in studies utilizing AATOM™ 425 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.