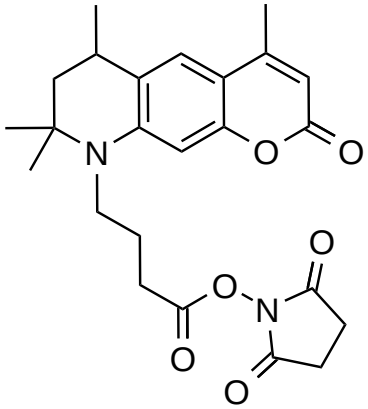
AATOM™ 390 NHS ester

Catalog Number: 70201
Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid light brown
Molecular Weight	440.50
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	390 nm
Emission Wavelength	475 nm

Applications

AATOM™ 390 is a coumarin-based fluorescent dye characterized by its high fluorescence quantum yield, large Stokes shift, good photostability, and low molecular weight. It exhibits moderate hydrophilicity and is optimally excited within the 360-410 nm range, with a mercury arc lamp (emission lines at 365 nm and 405 nm) serving as an effective excitation source. This dye is well-suited for applications in single-molecule detection and advanced high-resolution microscopy techniques, including PALM, dSTORM, and STED. Additionally, AATOM™ 390 is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and other diverse biological assays.

The N-hydroxysuccinimidyl (NHS) ester of AATOM™ 390 is a widely used reagent for the conjugation of this dye to proteins or antibodies. NHS esters react selectively and efficiently with primary amines (such as the side chains of lysine residues or aminosilane-coated surfaces) at pH 7-9, forming stable covalent amide bonds. This property makes AATOM™ 390 NHS ester an excellent choice for labeling proteins, amine-modified oligonucleotides, and other amine-containing molecules. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.