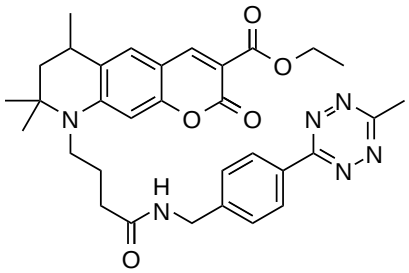
AATOM™ 425 Tetrazine

Catalog Number: 70217
Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid
Molecular Weight	584.68
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. The dye exhibits moderate hydrophilicity and has an optimal excitation range of 405-455 nm. AATOM™ 425 is particularly suited for applications in single-molecule detection and high-resolution microscopy techniques, including PALM, dSTORM, and STED microscopy. It is also compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a range of other biological assays.

AATOM™ 425 tetrazine is particularly useful for labeling TCO-modified biomolecules under copper-free conditions. It reacts with TCO-functionalized molecules, forming a stable conjugate via a dihydropyrazine moiety. This click reaction is favored over others due to its extremely fast kinetics and higher yields under mild reaction conditions, making it a popular choice for researchers. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.