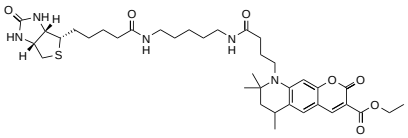
AATOM™ 425 Biotin Conjugate

Catalog Number: 3302
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	711.92
Soluble In	Water
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 Biotin conjugates are utilized in diverse applications such as ELISA, immunohistochemistry, in situ hybridization, and flow cytometry for the detection of streptavidin, avidin, or extravidin-conjugates. In biotechnology, biotin is a critical reagent for protein detection, purification, and immobilization due to its strong binding affinity to streptavidin and avidin. The minimal size of the biotin moiety generally preserves the functional integrity of biotinylated proteins. AATOM™ 425 biotin consists of a biotinyl group, a spacer arm, and an AATOM™ 425 dye. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.