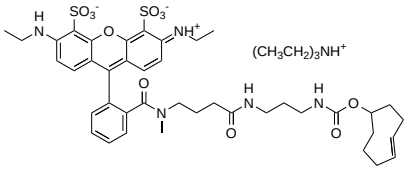
AATOM™ 532 TCO

Catalog Number: 2866
Unit Size: 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	955.20
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	531 nm
Emission Wavelength	552 nm

Applications

AATOM™ 532 is a rhodamine-based fluorescent dye notable for its high molar absorptivity and fluorescence quantum yield (0.90), providing robust signal intensity in fluorescence applications. Its combination of photostability, aqueous solubility, and sufficient Stokes shift makes it suitable for single-molecule detection and high-resolution microscopy techniques, including SIM and STED microscopy. AATOM™ 532 is also effective in flow cytometry, FISH, and a variety of biological assays, offering flexibility for diverse fluorescence-based experimental protocols. The dye is optimally excited within the 515-545 nm range, with a frequency-doubled Nd:YAG laser at 532 nm serving as an ideal excitation source.

AATOM™ 532 TCO is particularly useful for labeling tetrazine-modified biomolecules under copper-free conditions. It reacts with tetrazine-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.