

AATOM™ 488 TCO

Catalog Number: 2801

Unit Size: 1 mg

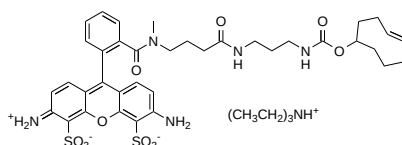
Product Details

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

Chemical Properties

Appearance	Solid orange-red
Molecular Weight	899.08
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	499 nm
Emission Wavelength	520 nm

Applications

AATOM™ 488 is a hydrophilic, rhodamine-based fluorescent dye with exceptional water solubility. It is characterized by strong absorption, a high fluorescence quantum yield, and exceptional photostability, making it highly suitable for advanced fluorescence imaging techniques. The dye exhibits optimal excitation within the 480-515 nm wavelength range, aligning precisely with the 488 nm emission line of the Argon-Ion laser. AATOM™ 488 is particularly effective for single-molecule detection and super-resolution microscopy methods such as PALM, dSTORM, and STED. Moreover, it is well-suited for flow cytometry (FACS), fluorescence in situ hybridization (FISH), and other bioanalytical applications.

AATOM™ 488 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.