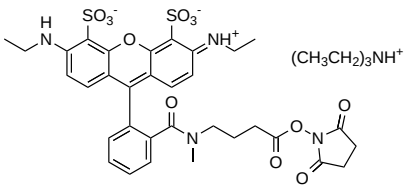
AATOM™ 532 NHS ester

Catalog Number: 2822
Unit Size: 1 mg

Product Details

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

Chemical Properties

Appearance	Solid red
Molecular Weight	843.96
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	531 nm
Emission Wavelength	552 nm

Applications

AATOM™ 532 is a rhodamine-based fluorescent dye characterized by its strong absorption and exceptional fluorescence quantum yield (0.90). It demonstrates good photostability along with excellent water solubility, and features a sufficient Stokes shift (Ex/Em = 531/552). AATOM™ 532 is highly suitable for single-molecule detection and high-resolution microscopy techniques such as SIM and STED. Additionally, it is well-suited for flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a variety of other biological assays, making it a versatile tool in advanced fluorescence-based research. It is optimally excited within the 515-545 nm range, with the 532 nm output of a frequency-doubled Nd:YAG laser serving as an ideal excitation source.

The N-hydroxysuccinimidyl (NHS) ester of AATOM™ 532 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™ 532 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.