

AATOM™ 532 maleimide

Catalog Number: 2823

Unit Size: 1 mg

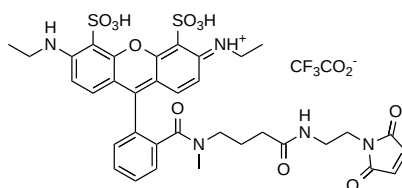
Product Details

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

Chemical Properties

Appearance	Solid red
Molecular Weight	881.85
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 maleimide derivative of AATOM™ 532 is widely used for labeling biomolecules with free thiol (SH) groups, including antibodies, proteins, thiol-modified oligonucleotides, and low molecular weight ligands. Maleimides react readily with sulfhydryl groups, forming stable thio-ether bonds between the dye and the biomolecule, facilitating robust and reliable labeling for diverse experimental applications. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.