

# AATOM™ 488 maleimide

Catalog Number: 2816

Unit Size: 1 mg

## Product Details

---

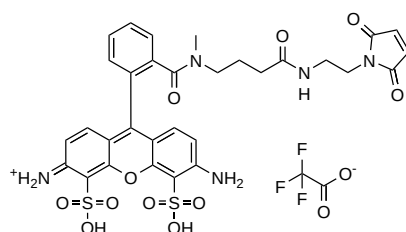
Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

## Chemical Properties

---

Appearance	Solid red
Molecular Weight	825.74
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.

The maleimide derivative of AATOM™ 488 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.