

AATOM[™] 620 maleimide

Catalog Number: 70262

Unit Size: 1 mg

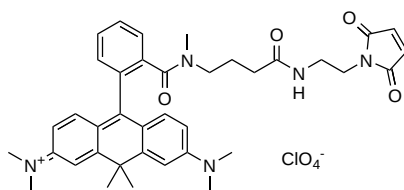
Product Details

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

Chemical Properties

Appearance	Solid blue
Molecular Weight	734.25
Soluble In	DMSO

Chemical Structure



Spectral Properties

Excitation Wavelength	619 nm
Emission Wavelength	641 nm

Applications

AATOM[™] 620 is a bright-red fluorescent dye, characterized by its strong absorption, exceptional photo and thermal stability, and temperature-dependent fluorescence. It demonstrates moderate hydrophilicity and optimal excitation within the 600-630 nm wavelength range. The dye maintains stable fluorescence over a wide pH range (2-11), allowing for its use in diverse experimental conditions. Upon conjugation to a substrate, AATOM[™] 620 becomes cationic, carrying a net positive charge of +1. These properties make AATOM[™] 620 particularly suitable for high-precision applications, including single-molecule detection and super-resolution microscopy techniques such as PALM, dSTORM, and STED. Additionally, it is compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and various other biological assays.

The maleimide derivative of AATOM[™] 620 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.