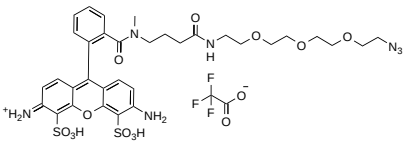
AATOM™ 488 PEG3 azide

Catalog Number: 2802, 2817
Unit Size: 1 mg, N/A

Product Details

Storage Conditions	N/A
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	N/A
Molecular Weight	N/A
Soluble In	N/A
Chemical Structure	

Spectral Properties

Excitation Wavelength	499 nm
Emission Wavelength	520 nm

Applications

AATOM™ 488 is a hydrophilic, rhodamine-based fluorescent dye that exhibits enhanced water solubility due to the incorporation of a PEG3 spacer. 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 PEG3-azide derivative of AATOM™ 488 is widely used for labeling terminal alkynes on peptides, antibodies, and other biomolecules via click chemistry. It participates in copper-catalyzed azide-alkyne cycloaddition (CuAAC) with alkyne-containing molecules and strain-promoted alkyne-azide cycloaddition (SPAAC) with DBCO- or BCN-containing molecules. This product is manufactured by AAT Bioquest and is not affiliated with ATTO-TEC GmbH.