

AATOM[™] 495 azide

Catalog Number: 70223

Unit Size: 1 mg

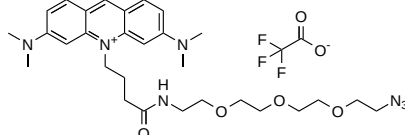
Product Details

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

Chemical Properties

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|------------------|-----------|
| Appearance | Solid red |
| Molecular Weight | 665.75 |
| Soluble In | DMSO |

Chemical Structure



Spectral Properties

| | |
|-----------------------|--------|
| Excitation Wavelength | 497 nm |
| Emission Wavelength | 525 nm |

Applications

AATOM[™] 495 is a green fluorescent dye derived from acridine orange, known for its strong absorption, high fluorescence quantum yield, excellent photostability, and superior thermal stability. It exhibits moderate hydrophilicity and is highly soluble in polar solvents such as DMF and DMSO, with an optimal excitation range of 465-510 nm. Notably, AATOM[™] 495 exhibits intense and long-lived phosphorescence in solid matrices or at low temperatures. This dye is well-suited for advanced applications in single-molecule detection and high-resolution microscopy techniques, such as PALM, dSTORM, and STED microscopy. It is also compatible with flow cytometry (FACS), fluorescence in situ hybridization (FISH), and a wide range of other biological assays.

The azide derivative of AATOM[™] 495 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.