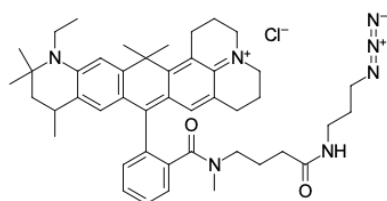


ATT 647N azide

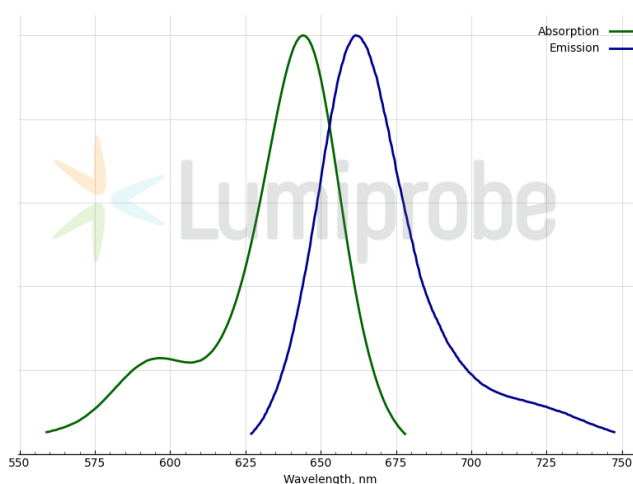
<http://www.lumiprobe.com/p/atto-647n-azide>

ATT 647N azide is a far-red fluorescent dye derivative functionalized with an azide group for copper-catalyzed or copper-free click chemistry (CuAAC or SPAAC) with alkyne-bearing biomolecules. The dye is based on the ATT 647N — a highly photostable, zwitterionic carbopyronine fluorophore with excellent brightness and low triplet formation. ATT 647N exhibits strong absorption in the red spectral range and high fluorescence quantum yield with emission maximum around 662 nm.

The azide functionality enables bioorthogonal conjugation to alkyne-modified nucleic acids, glycans, proteins, lipids, and other metabolic labels. ATT 647N azide provides stable fluorescent tagging compatible with fixed-cell imaging, flow cytometry, confocal, and high-resolution microscopy (SIM, STED, etc.). The dye's neutral, hydrophilic structure minimizes nonspecific interactions and improves performance in aqueous biological systems.



Structure of ATT 647N azide



Absorption and emission spectra of ATT 647N

General properties

Appearance:	purple powder
Molecular weight:	764.46
Molecular formula:	C ₄₅ H ₅₈ ClN ₇ O ₂
Solubility:	DCM, DMF, DMSO, acetonitrile, methanol
Quality control:	NMR ¹ H and HPLC-MS (95+%)
Storage conditions:	24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	644
ε, L·mol ⁻¹ ·cm ⁻¹ :	105000
Emission maximum, nm:	662
Fluorescence quantum yield:	0.68
CF ₂₆₀ :	0.08
CF ₂₈₀ :	0.05