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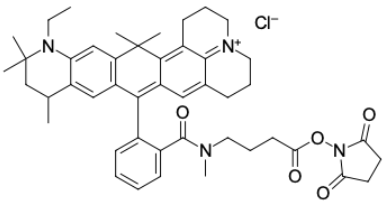
ATT 647N NHS ester

http://www.lumiprobe.com/p/atto-647n-nhs-ester

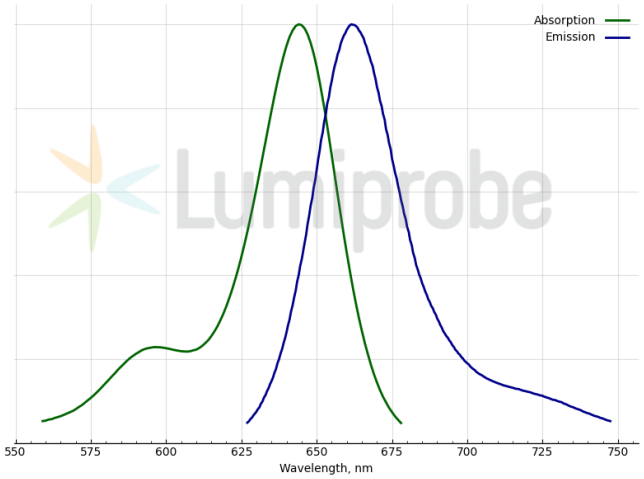
ATT 647N NHS ester is an amine-reactive dye for labeling various amine-containing molecules in an aqueous phase without using any organic co-solvent. This product is beneficial for the labeling of peptides and proteins that denature in the presence of organic co-solvents, as well as for proteins with low solubility.

ATT 647N is a rhodamine-based far-red fluorophore with strong molar absorption, high fluorescence quantum yield, and excellent thermal and photostability. ATT 647N fluorescence is independent of pH in the range of 2 to 11, which supports its application under diverse experimental conditions.

Unlike cyanine dyes, ATT 647N exhibits enhanced resistance to atmospheric ozone degradation, making it highly suitable for microarray and other high-precision applications such as single-molecule detection, super-resolution microscopy techniques (e.g., SIM and STED), flow cytometry (FACS), and fluorescence in situ hybridization (FISH).



Structure of ATT 647N NHS ester



Absorption and emission spectra of ATT 647N NHS ester

General properties

Appearance:	blue powder
Molecular weight:	779.42
CAS number:	1199940-27-6
Molecular formula:	$C_{46}H_{55}ClN_4O_5$
Solubility:	DMSO, DCM, DMF, acetonitrile
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	12 months after receival 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, $L \cdot mol^{-1} \cdot cm^{-1}$:	105000
Emission maximum, nm:	662
Fluorescence quantum yield:	0.68

CF_{260}:	0.08
CF_{280}:	0.05