

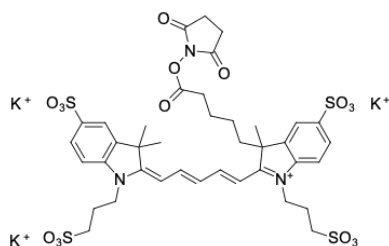
AF 647 NHS ester

<http://www.lumiprobe.com/p/af647-nhs-ester>

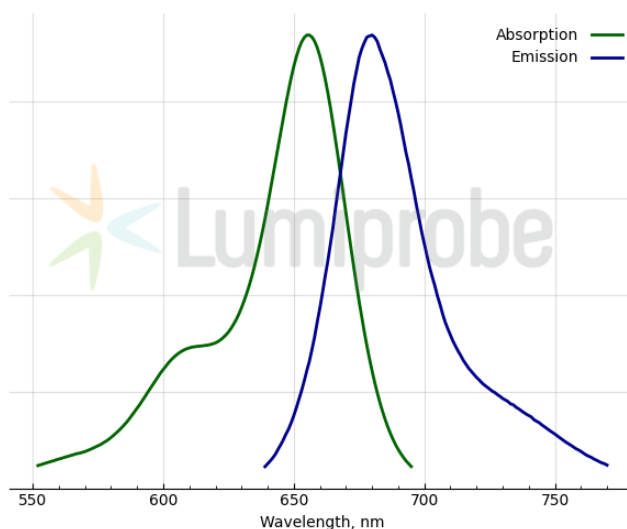
AF 647 NHS ester is a bright, far-red fluorescent dye, used for cellular visualization and labeling of antibodies, peptides, proteins, modified oligonucleotides, and other amine-containing molecules.

Due to the lack of significant self-quenching AF 647 dye molecules can be conjugated to proteins at high molar ratios, resulting in the sensitive detection of low-abundance biomolecules potential.

AF 647 NHS ester dye possesses high water-solubility and high fluorescence quantum yield; it is pH-insensitive over a wide molar range. Widely applied for imaging and flow cytometry.



Structure of AF 647 NHS ester



Absorption and emission spectra of AF 647

General properties

Appearance: dark violet solid
Molecular weight: 1056.33
Molecular formula: $C_{38}H_{44}N_4K_3O_{10}S_4$
IUPAC name: 2-((1E,3E)-5-((E)-3,3-dimethyl-5-sulfonato-1-(3-sulfonatopropyl)indolin-2-ylidene)penta-1,3-dien-1-yl)-3-(5-((2,5-dioxopyrrolidin-1-yl)oxy)-5-oxopentyl)-3-methyl-1-(3-sulfonatopropyl)-3H-indol-1-ium-5-sulfonate
Solubility: good in water, DMSO, DMF
Quality control: NMR 1H , HPLC-MS (90%)
Storage conditions: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.

Spectral properties

Excitation/absorption maximum, nm: 655
 ϵ , L·mol $^{-1}$ ·cm $^{-1}$: 191800
Emission maximum, nm: 680
Fluorescence quantum yield: 0.15
CF $_{260}$: 0.09
CF $_{280}$: 0.08