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AF 594 NHS ester

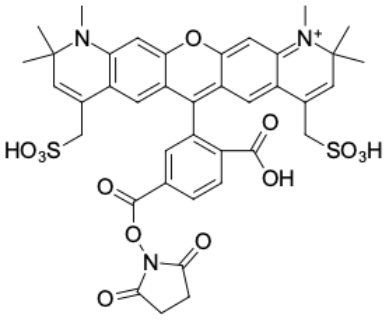
http://www.lumiprobe.com/p/af-594-nhs-ester-6

AF 594 is a bright water-soluble dye that is not sensitive to pH changes within the range from 4 to 10. This red-fluorescent dye is commonly used for flow cytometry and fluorescent microscopy.

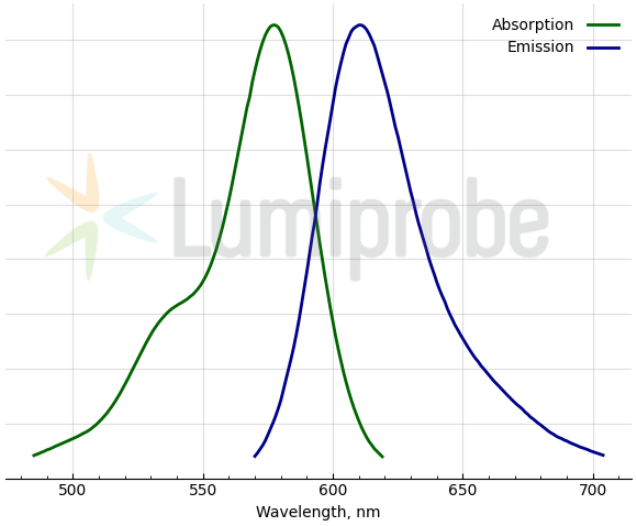
AF 594 NHS ester is used for labeling proteins, peptides, antibodies, and any molecules containing an -NH2 group (such as amino-modified oligonucleotides); it results in the formation of stable amide bonds between the dye and the target molecule. The best result in conjugation reaction achieved at pH from 7 to 9.

AF 594 can be used for protein labeling with a high molar dye-to-protein ratio. The resulting conjugates with a high degree of labeling (DOL) do not exhibit significant fluorescence quenching. In contrast, the conjugates have brighter fluorescence, which allows increasing the lowest limit of detection of the labeled product.

This product is a pure 6-isomer.



Structure of AF 594 NHS ester



Absorbance and emission spectra of AF 594

General properties	
Appearance:	dark-blue crystals
Molecular weight:	820.90
Molecular formula:	$C_{39}H_{38}N_3O_{13}S_2$
Solubility:	soluble in water, DMSO, DMF
Quality control:	NMR [1] (95+%), H and HPLC-MS (80+%)
Storage conditions:	12 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. 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:	586
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	105000
Emission maximum, nm:	613
Fluorescence quantum yield:	0.77

CF_{260}:	0.28
CF_{280}:	0.51