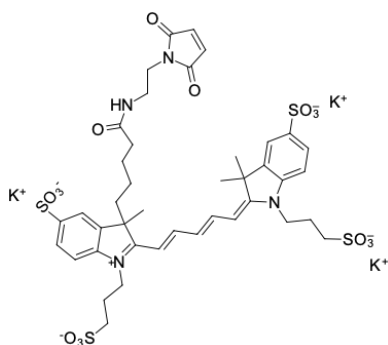


## AF 647 maleimide

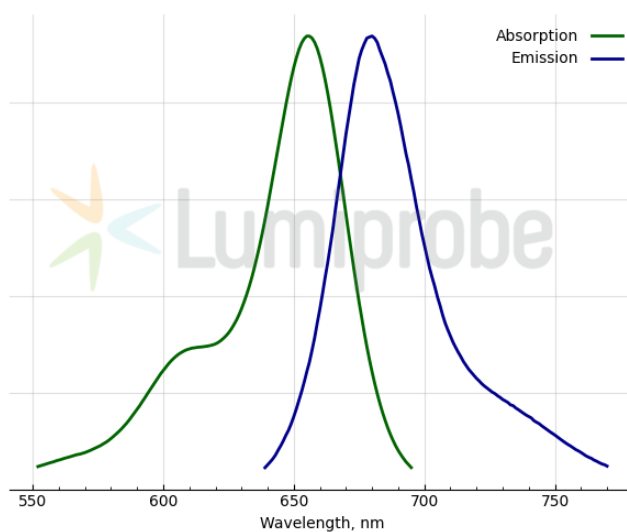
<http://www.lumiprobe.com/p/af-647-maleimide>

AF 647 maleimide is a thiol-reactive dye for labeling of protein SH groups, and it can be used to attach AF 647 fluorophore to proteins and peptides containing cysteine residues, as well as to other thiolated molecules (such as thiol-containing oligonucleotides). Cystines should be reduced with TCEP (tris-carboxyethylphosphine) or with another appropriate reductant prior to the labeling.

AF 647 is a bright, far-red-emitting fluorescent dye with high fluorescence quantum yield and photostability. AF 647 is a water-soluble, pH-insensitive dye. The spectrum of AF 647 is far from the green-yellow wavelengths, which makes this fluorophore indispensable for the microscopy of tissues with high autofluorescence.



**Structure of AF 647 maleimide**



**Absorption and emission spectra of AF 647**

### General properties

Appearance:	dark blue powder
Molecular weight:	1081.40
Molecular formula:	$C_{41}H_{47}K_3N_4O_{15}S_4$
Solubility:	good in DMSO, DMF
Quality control:	NMR $^1H$ and HPLC-MS (90+%)
Storage conditions:	12 months after receipt at $-20^\circ C$ 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:	655
$\epsilon$ , $L \cdot mol^{-1} \cdot cm^{-1}$ :	191800
Emission maximum, nm:	680
Fluorescence quantum yield:	0.15
$CF_{260}$ :	0.09
$CF_{280}$ :	0.08