Lumiprobe Corporation
115 Airport Dr Suite 160
Westminster, Maryland 21157
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

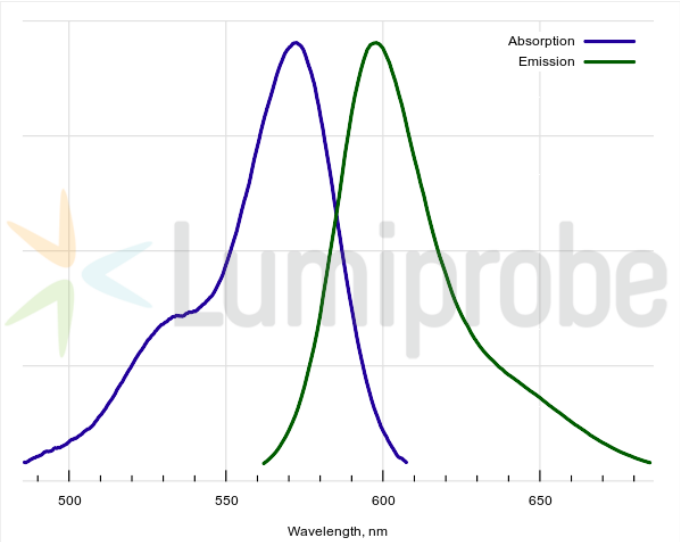
AF 568 maleimide

http://www.lumiprobe.com/p/af-568-maleimide-6

AF 568 maleimide is a bright orange-red fluorescent dye reactive toward thiol groups. The maleimide moiety selectively conjugates with sulfhydryl groups of cysteine residues in proteins, peptides, antibodies, and other biomolecules, forming stable thioether bonds. The dye provides high fluorescence intensity and excellent photostability, enabling efficient labeling for fluorescence microscopy, flow cytometry, and other bioanalytical applications.

AF 568 exhibits excitation and emission maxima compatible with standard TRITC/Cyanine3 imaging settings. The dye is well suited for multicolor experiments due to its minimal spectral overlap with green and far-red fluorophores.

Maleimide conjugation reactions proceed efficiently at near-neutral pH (typically pH 6.5–7.5), enabling selective labeling of free thiols under mild conditions. AF 568 maleimide can be used for labeling proteins, oligonucleotides, nanoparticles, and other thiol-containing molecules.



Absorption and emission spectra of AF 568

General properties

Appearance:	purple powder
Molecular weight:	935.13
Molecular formula:	$C_{42}H_{40}K_2N_4O_{12}S_2$
Solubility:	water, DMSO
Quality control:	NMR ^1H, HPLC-MS (90%)
Storage conditions:	24 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:	572
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	94238
Emission maximum, nm:	598
Fluorescence quantum yield:	0.912

CF_{260}:	0.4
CF_{280}:	0.32