

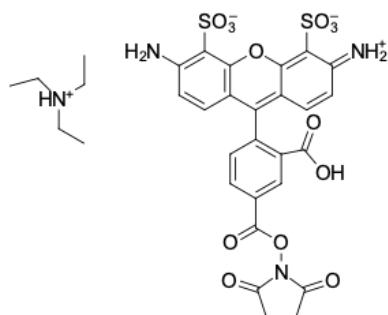
AF 488 NHS ester

<http://www.lumiprobe.com/p/alexa-fluor-488-nhs-ester>

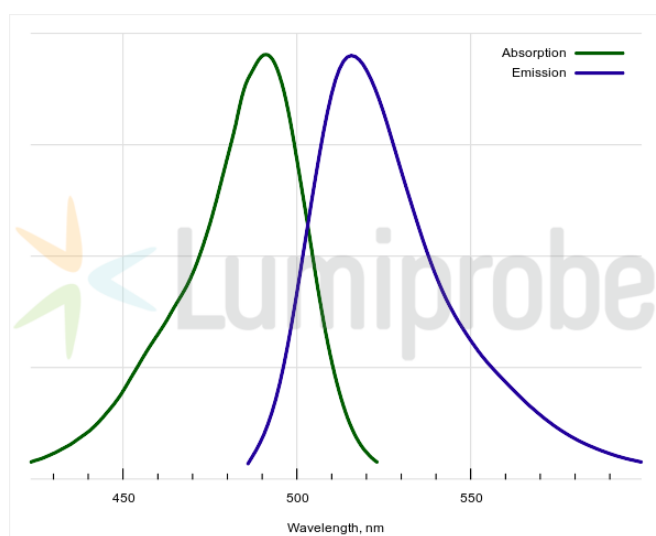
AF 488 is a bright and photostable dye. Due to its high hydrophilicity, this is a dye of choice for the labeling of sensitive proteins and antibodies. The dye is useful for many demanding applications, including microscopy.

AF 488 is a sulfonated rhodamine dye Rhodamine 110 (R110). Like other rhodamines, it is available as 5- and 6-isomers, which have almost identical photophysical properties. The isomers need to be separated, otherwise, the use of mixed isomer dye can lead to doubled peaks during HPLC or electrophoresis separations of the labeled products. This product is an isomerically pure 5-AF 488.

This NHS ester is an amine-reactive dye; it can label amine groups in proteins, peptides, amino-modified oligos, and other target molecules.



Structure of AF 488 NHS ester



Absorption and emission spectra of AF 488

General properties

Appearance:	dark orange solid
Molecular weight:	732.74
Molecular formula:	C ₃₁ H ₃₂ N ₄ O ₁₃ S ₂
Solubility:	good in water, DMF, DMSO
Quality control:	NMR ¹ H, HPLC-MS (80+%, balance mostly carboxylic acid)
Storage conditions:	Storage: 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:	495
ε, L·mol ⁻¹ ·cm ⁻¹ :	71800
Emission maximum, nm:	519
Fluorescence quantum yield:	0.91
CF ₂₆₀ :	0.16
CF ₂₈₀ :	0.10