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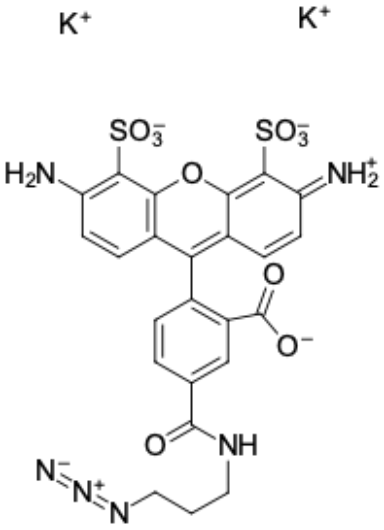
AF 488 azide

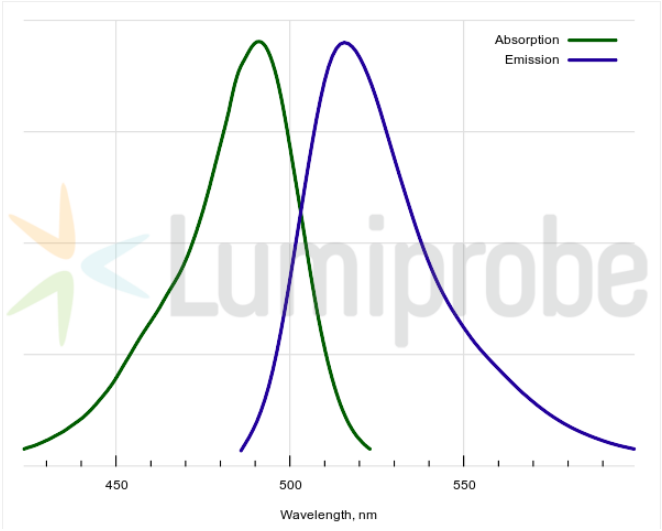
http://www.lumiprobe.com/p/af-488-azide

AF 488 is a fluorescent dye. AF 488 is a fluorophore pH-insensitive over a broad pH range (from 4 to 10). It has an absorption maximum at 495 nm and an emission maximum at 519 nm in the green spectrum region. The dye is hydrophilic and can be used to introduce the fluorescent label into various molecules, including proteins and antibodies. Conjugates of molecules with AF 488 have high brightness and photostability and are commonly used in flow cytometry and microscopy. This allows the detection of biological objects with high sensitivity at a longer imaging time.

AF 488 azide interacts with alkynyl derivatives of biomolecules in Click Chemistry reactions either in the presence of copper (I) catalyst (with terminal alkynes) or without catalyst (with cyclooctynes), leading to the formation of stable adducts.



Structure of AF488 azide



Absorption and emission spectra of AF 488

General properties

Appearance:	orange solid
Molecular weight:	692.76
CAS number:	1679326-36-3 (with azidohexyl group)
Molecular formula:	$C_{24}H_{18}K_2N_6O_{10}S_2$
Solubility:	good in water, DMF, DMSO
Quality control:	NMR ^1H, HPLC-MS (95%)
Storage conditions:	Storage: 24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light.
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:	495
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	71800
Emission maximum, nm:	519
Fluorescence quantum yield:	0.91
CF_{260}:	0.16
CF_{280}:	0.10