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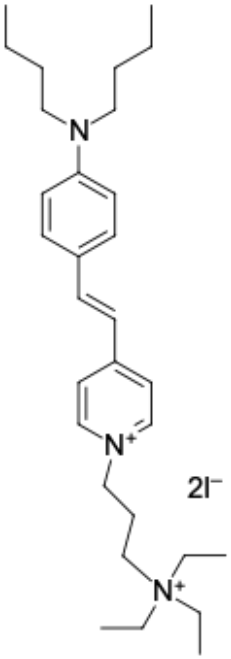
SynaptoProbe® Green

http://www.lumiprobe.com/p/synaptoprobe-green-fm-1-43

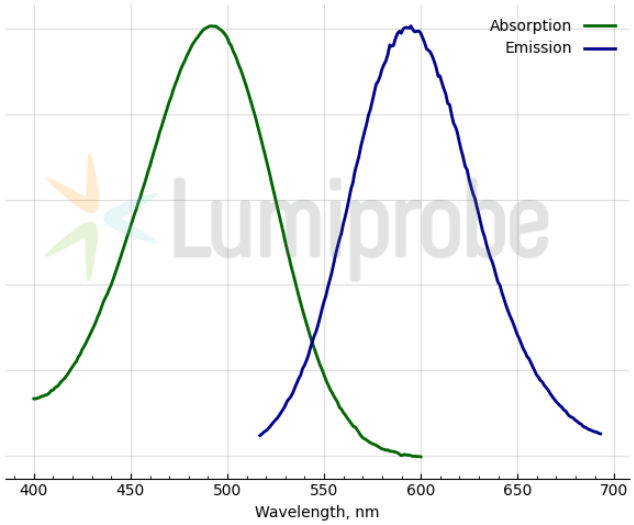
SynaptoProbe® Green is an analog of FM®1-43, a widely used green fluorescent dye for studying synaptic activity in the synapses or neuromuscular junctions by staining synaptic vesicles.

This water-soluble and non-toxic to cells dye is nonfluorescent in an aqueous medium but becomes highly fluorescent after embedding into the outer leaflet of the cell membrane. When a neuron actively releases neurotransmitters, the dye becomes internalized within the recycled synaptic vesicles and stains the nerve terminals.

SynaptoProbe® Green can be used to visualize synaptic vesicles and their exocytosis and endocytosis in living neurons, identify actively firing neurons, and investigate the mechanisms of activity-dependent vesicle cycling. It is also helpful for the visualization of shear stress-induced plasma membrane damage in fibroblasts.



Structure of SynaptoProbe Green



Absorption and emission spectra of SynaptoProbe Green

General properties

Appearance:	light red solid
Molecular weight:	705.55
CAS number:	149838-22-2 (dibromide)
Molecular formula:	$C_{30}H_{49}I_2N_3$
IUPAC name:	N-(3-Triethylammoniumpropyl)-4-(4-(Dibutylamino) Styryl) Pyridinium Diiodide
Solubility:	good in water
Quality control:	NMR ^1H and HPLC-MS (95+%)
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:	492
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	55800
Emission maximum, nm:	594

FM® is the trademark of Molecular Probes™