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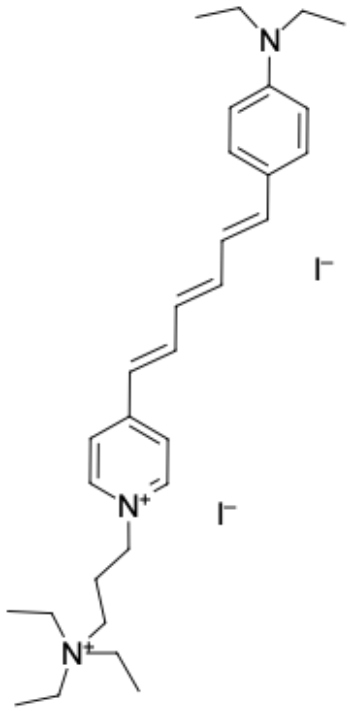
SynaptoProbe® Red

http://www.lumiprobe.com/p/synaptoprobe-red-fm-4-64

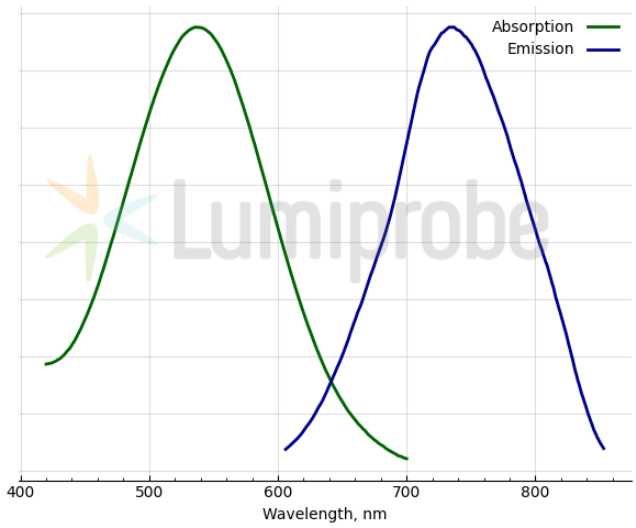
SynaptoProbe® Red is an analog of FM®4-64, a widely used red fluorescent dye for studying synaptic activity in the synapses or neuromuscular junctions by staining synaptic vesicles.

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® Red 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 Red



Absorption and emission spectra of SynaptoProbe Red

General properties

Appearance:	dark powder
Molecular weight:	701.51
CAS number:	162112-35-8 (bromide salt)
Molecular formula:	$C_{30}H_{45}I_2N_3$
IUPAC name:	4-{6-[4-(diethylamino)phenyl]hexa-1,3,5-trien-1-yl}-1-[3-(triethylammonio)propyl]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:	Product is offered and sold for research purposes only. Product is not tested for safety and efficacy in food, drug, medical device, cosmetic, no express or implied authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, for humans or animals or for commercial purposes.

Spectral properties

Excitation/absorption maximum, nm:	536
Emission maximum, nm:	736