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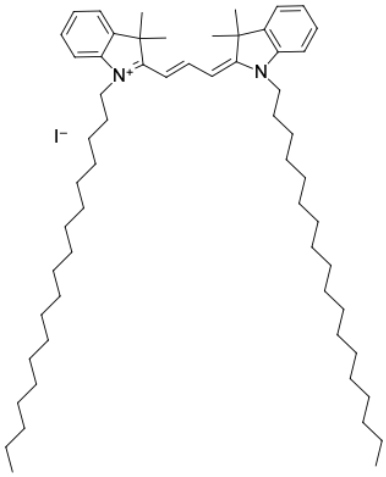
DiI, lipophilic tracer

http://www.lumiprobe.com/p/di-i-lipophilic-tracer

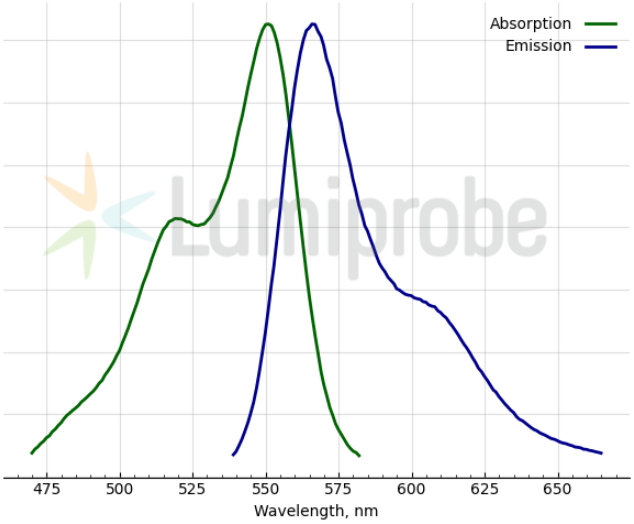
DiI (DiIC18(3); 1,1′-dioctadecyl-3,3,3′,3′-tetramethylindocarbocyanine) is an orange-red fluorescent carbocyanine dye.

DiI is a widely used lipophilic dye that labels cell membranes by inserting its two long hydrocarbon (C18 carbon) chains into the lipid bilayer. The dye is weakly fluorescent until incorporated into membranes. DiI diffuses laterally to stain the entire cell, allowing it to be used as an anterograde and retrograde tracer of neurons. In intact tissue, the dye does not transfer from labeled to unlabeled cells, but some transfer may occur when the membrane is disrupted, for example, after sectioning.

DiI is often used with other tracers in dual-color studies, such as DiA and DiO.



Structure of DiI, lipophilic tracer



Absorption and emission spectra of DiI

General properties

Appearance:	violet solid
Molecular weight:	961.34
CAS number:	22366-93-4
Molecular formula:	$C_{59}H_{97}IN_2$
Solubility:	DMSO
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:	551
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	144500
Emission maximum, nm:	566