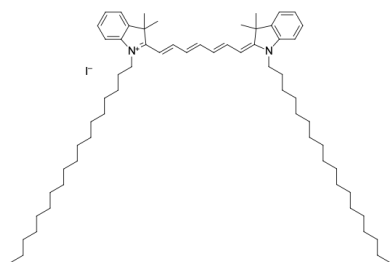


## DiR, lipophilic tracer

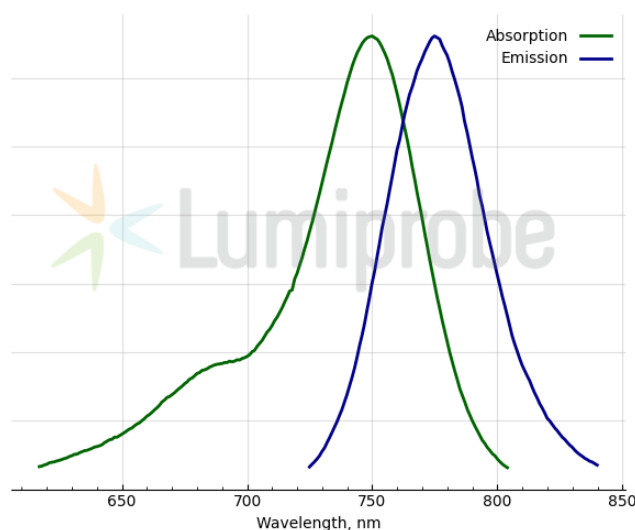
<http://www.lumiprobe.com/p/di-r-lipophilic-tracer>

DiR is a near-infrared fluorescent carbocyanine dye for cell membrane labeling *in vivo* and *in vitro*. DiR 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. The dye is weakly fluorescent until incorporated into membranes.

DiR can be used with other tracers in multi-color studies, such as [Dil](#) or [DiO](#) and for NIR imaging.



**Structure of DiR lipophilic tracer**



**Absorption and emission spectra of DiR**

### General properties

Appearance:	violet-green sticky solid
Molecular weight:	1013.42
CAS number:	100068-60-8
Molecular formula:	C <sub>63</sub> H <sub>101</sub> N <sub>2</sub>
Solubility:	DMSO
Quality control:	NMR <sup>1</sup> H and HPLC-MS (95+%)
Storage conditions:	24 months after receipt 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, <i>in vitro</i> diagnostic purposes, for humans or animals or for commercial purposes.

### Spectral properties

Excitation/absorption maximum, nm:	750
ε, L·mol <sup>-1</sup> ·cm <sup>-1</sup> :	254000
Emission maximum, nm:	775
Fluorescence quantum yield:	0.25
CF <sub>260</sub> :	0.08
CF <sub>280</sub> :	0.08