DiI in Vegetable Oil

DiI (DiIC18(3); 1,1′-dioctadecyl-3,3,3′,3′-tetramethylindocarbocyanine) uniformly dissolved in vegetable oil in a formulation optimized for microinjection. Carbocyanine microinjection has been widely used for fate mapping and cell lineage studies and for the determination of spatial organization and connectivity patterns of central nervous systems.

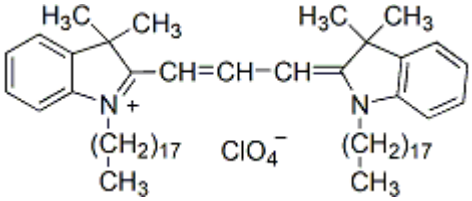
Product attributes

CAS number	41085-99-8
Probe cellular localization	Membrane/cell surface, Membrane/vesicular
For live or fixed cells	For fixed cells, For live/intact cells
Assay type/options	Co-cultures, Extended staining (several days to weeks)
Fixation options	Fix before staining (formaldehyde), Fix after staining (formaldehyde), Permeabilize before staining
Colors	Red
Excitation/Emission	549/565 nm

Product Description

DiI uniformly dissolved in vegetable oil in a formulation optimized for membrane labeling or cell tracking. Carbocyanine dyes in oil have been widely used for fate mapping and cell lineage studies. [1-2] These dyes are used for pre-labeling neurons for transplantation, tracing cranial or spinal nerves in fixed brain tissue, and labeling of nerves in tracing studies as well. [3-5] The red fluorescent DiI and green fluorescent Neuro-DiO in oil can be used in combination for two color imaging. We also offer DiI solid, and CellBrite® Orange, a DiI solution for staining cell membranes.

- $DiIC_{18}(3)$; 1,1′-dioctadecyl-3,3,3′,3′-tetramethylindocarbocyanine
- $\lambda_{Ex}/\lambda_{Em}$ (MeOH) = 549/565 nm
- Red oil
- Store at room temperature and protect from light (do not freeze)
- [41085-99-8]



References

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2. McPherson, et al. “Cortical Localization of a Calcium Release Channel in Sea Urchin Eggs.” Journal of Cell Biology 116, no. 5 (March 1992): 1111–1121. DOI:10.1083/jcb.116.5.1111.
3. Potter, et al. “Neural Transplant Staining with DiI and Vital Imaging by 2-Photon Laser-Scanning Microscopy.” Scanning Microscopy Supplement 10 (1996): 189–199. PMID: 9601539.
4. von Bartheld, et al. “Neuronal Tracing with DiI: Decalcification, Cryosectioning, and Photoconversion for Light and Electron Microscopic Analysis.” Journal of Histochemistry & Cytochemistry 38, no. 5 (May 1990): 725–733. DOI:10.1177/38.5.2185313.
5. Murphy, et al. “Anterograde Tracing Method Using DiI to Label Vagal Innervation of the Embryonic and Early Postnatal Mouse Gastrointestinal Tract.” Journal of Neuroscience Methods 163, no. 2 (July 30, 2007): 213–225. DOI:10.1016/j.jneumeth.2007.03.001.