

## Dil in Vegetable Oil

Dil (DiIC<sub>18</sub>(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.



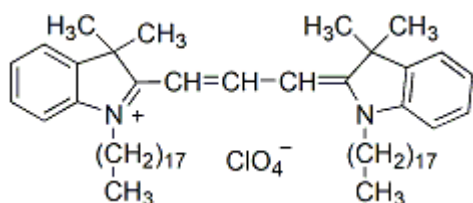
### Product attributes

|                             |   |
|-----------------------------|---|
| 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

Dil 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.<sup>1-2</sup> 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.<sup>3-5</sup> The red fluorescent Dil and green fluorescent Neuro-DiO in oil can be used in combination for two color imaging. We also offer [Dil solid](#), and [CellBrite® Orange](#), a Dil solution for staining cell membranes.

- DiIC<sub>18</sub>(3); 1,1'-dioctadecyl-3,3,3',3'-tetramethylindocarbocyanine
- λ<sub>Ex</sub>/λ<sub>Em</sub> (MeOH) = 549/565 nm
- Red oil
- Store at room temperature and protect from light (do not freeze)
- [41085-99-8]



## References

1. Ruiz, et al. "Fate maps and cell lineage analysis" in *Essential developmental biology: a practical approach*. Oxford: IRL Press at Oxford University Press, 81-95 (1993).
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](https://doi.org/10.1083/jcb.116.5.1111).
3. Potter, et al. "Neural Transplant Staining with Dil and Vital Imaging by 2-Photon Laser-Scanning Microscopy." *Scanning Microscopy Supplement* 10 (1996): 189-199. [PMID: 9601539](https://pubmed.ncbi.nlm.nih.gov/9601539/).
4. von Bartheld, et al. "Neuronal Tracing with Dil: 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](https://doi.org/10.1177/38.5.2185313).
5. Murphy, et al. "Anterograde Tracing Method Using Dil 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](https://doi.org/10.1016/j.jneumeth.2007.03.001).

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