

# PRODUCT INFORMATION

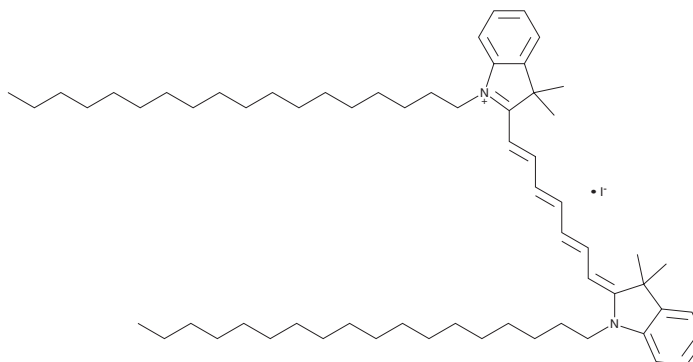


## 1,1-Dioctadecyl-3,3,3,3-tetramethylindotricarbocyanine (iodide)

Item No. 34954

**CAS Registry No.:** 100068-60-8  
**Formal Name:** 2-[7-(1,3-dihydro-3,3-dimethyl-1-octadecyl-2H-indol-2-ylidene)-1,3,5-heptatrien-1-yl]-3,3-dimethyl-1-octadecyl-3H-indolium, monoiodide

**Synonym:** DiR  
**MF:** C<sub>63</sub>H<sub>101</sub>N<sub>2</sub> • I  
**FW:** 1,013.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 748 nm  
**Ex./Em. Max:** 750/780 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

1,1-Dioctadecyl-3,3,3,3-tetramethylindotricarbocyanine (DiR) (iodide) is supplied as a solid. A stock solution may be made by dissolving the DiR (iodide) in the solvent of choice, which should be purged with an inert gas. DiR (iodide) is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml. DiR (iodide) is slightly soluble in DMSO and dimethyl formamide.

### Description

DiR is a lipophilic near-infrared fluorescent dye.<sup>1</sup> It displays excitation/emission maxima of 750/780 nm, respectively. DiR has been incorporated into PEGylated nanoparticles for use in antitumor photothermal therapy in mice.<sup>2</sup>

### References

1. Wagh, A., Qian, S.Y., and Law, B. Development of biocompatible polymeric nanoparticles for in vivo NIR and FRET imaging. *Bioconjug. Chem.* **23(5)**, 981-992 (2012).
2. Zhang, X., Sun, B., Zuo, S., et al. Self-assembly of a pure photosensitizer as a versatile theragnostic nanoplatform for imaging-guided antitumor photothermal therapy. *ACS Appl. Mater. Interfaces* **10(36)**, 30155-30162 (2018).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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