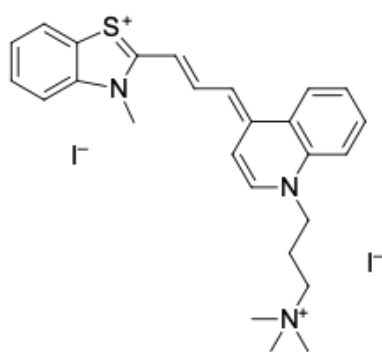


## TO-TAP-3, far-red fluorescent nucleic acid stain

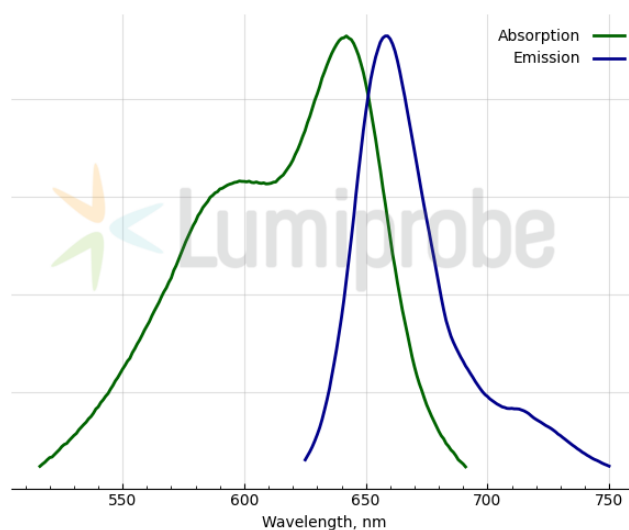
<http://www.lumiprobe.com/p/to-pro-3-nucleic-acid-stain>

TO-TAP-3 (Thiazole Red Monomer, also known as TO-PRO<sup>®</sup>-3) is a far-red fluorescent carbocyanine monomeric dye. TO-TAP-3 is a cell-impermeant nucleic acid stain that is nonfluorescent in the absence of nucleic acids but exhibits a significant fluorescence enhancement upon binding to dsDNA.

TO-TAP-3 has a bright fluorescence signal and low background. The dye is useful for staining nucleic acids on microarrays, as well as for nuclear and chromosome counterstaining in microscopy. It may be used for monitoring of cell viability and dead cell detection in culture. The long-wavelength fluorescence of TO-TAP-3 is well separated from green and red fluorophores, which makes it ideal for multicolor fluorescence labeling experiments.



**Structure of TO-TAP-3**



**Absorption and emission spectra of TO-TAP-3 (DNA-dye complex)**

### General properties

Appearance:	blue solution
Molecular weight:	671.43
CAS number:	157199-63-8
Molecular formula:	C <sub>26</sub> H <sub>31</sub> I <sub>2</sub> N <sub>3</sub> S
IUPAC name:	trimethyl-[3-[4-[(E,3Z)-3-(3-methyl-1,3-benzothiazol-2-ylidene)prop-1-enyl]quinolin-1-ium-1-yl]propyl]azanium;diiodide
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, in vitro diagnostic purposes, for humans or animals or for commercial purposes.

### Spectral properties

Excitation/absorption maximum, nm:	643 (complex)
Emission maximum, nm:	658 (complex)

TO-PRO<sup>®</sup> is the trademark of Molecular Probes.