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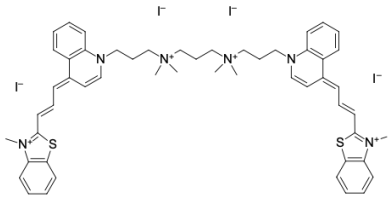
TODi-3, far-red fluorescent nucleic acid stain

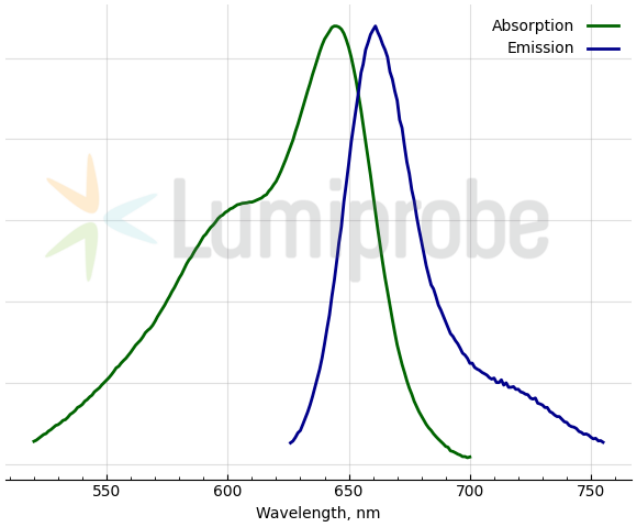
http://www.lumiprobe.com/p/todi-3-nucleic-acid-stain-toto-3

TODi-3 (Thiazole Red Homodimer, also known as TOTO®-3) is a far-red fluorescent carbocyanine dimeric dye. TODi-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.

The bright fluorescence signal and low background make TODi-3 ideal for staining nucleic acids on microarrays, as well as for nuclear and chromosome counterstaining in multicolor fluorescence labeling experiments. TODi-3 is non-cytotoxic and may be used for long-term monitoring of cell viability and dead cell detection in culture. The long-wavelength fluorescence of TODi-3 is well separated from green and red fluorophores, which makes it ideal for multicolor fluorescence labeling experiments.



Structure of TODi-3



Absorption and emission spectra of TODi-3 (DNA-dye complex)

General properties

Appearance:	blue solution
Molecular weight:	1354.87
CAS number:	166196-17-4
Molecular formula:	$C_{53}H_{62}I_4N_6S_2$
IUPAC name:	Quinolinium, 1,1′-[1,3-propanediylbis[(dimethyliminio)-3,1-propanediyl]]bis[4-[3-(3-methyl-2(3H)-benzothiazolylidene)-1-propenyl]-, tetraiodide
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival 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:	644
Emission maximum, nm:	662

TOTO® is the trademark of Invitrogen.