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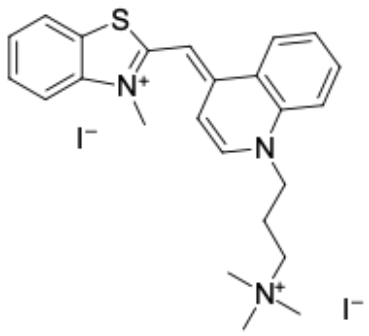
TO-TAP-1, green fluorescent nucleic acid stain

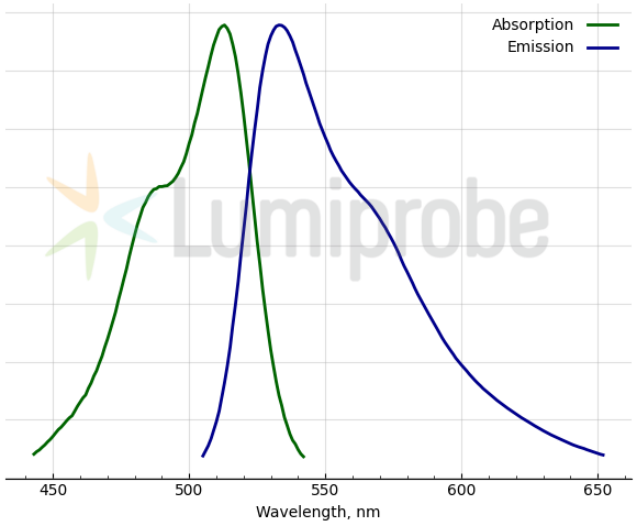
http://www.lumiprobe.com/p/to-pro-1-nucleic-acid-stain

TO-TAP-1 (Thiazole Orange Monomer, also known as TO-PRO®-1) is a green fluorescent carbocyanine monomeric dye. TO-TAP-1 is a cell-impermeant nucleic acid stain that is nonfluorescent in the absence of nucleic acids but exhibits a multiple fluorescence enhancement upon binding to dsDNA.

The bright fluorescence signal and low background make TO-TAP-1 ideal for staining nucleic acids on microarrays, as well as for nuclear and chromosome counterstaining in multicolor fluorescence labeling experiments. TO-TAP-1 is non-cytotoxic and may be used for long-term monitoring of cell viability and dead cell detection in culture.



Structure of TO-TAP-1



Absorption and emission spectra of TO-TAP-1 (DNA-dye complex)

General properties

Appearance:	orange solution
Molecular weight:	645.39
CAS number:	157199-59-2
Molecular formula:	$C_{24}H_{29}I_2N_3S$
IUPAC name:	Quinolinium, 4-[(3-methyl-2(3H)-benzothiazolylidene)methyl]-1-[3-(trimethylammonio)propyl]-, diiodide
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:	513
Emission maximum, nm:	533