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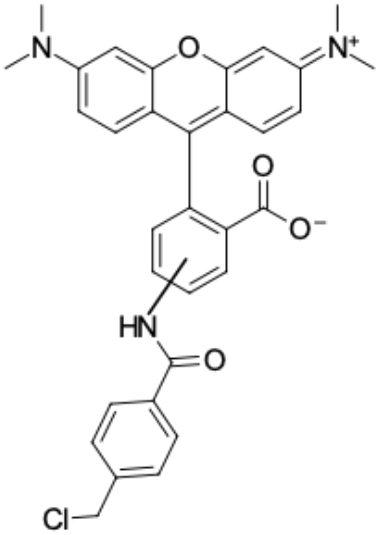
CytoTracer® Orange CMTMR

http://www.lumiprobe.com/p/cmtmr-celltracker-orange

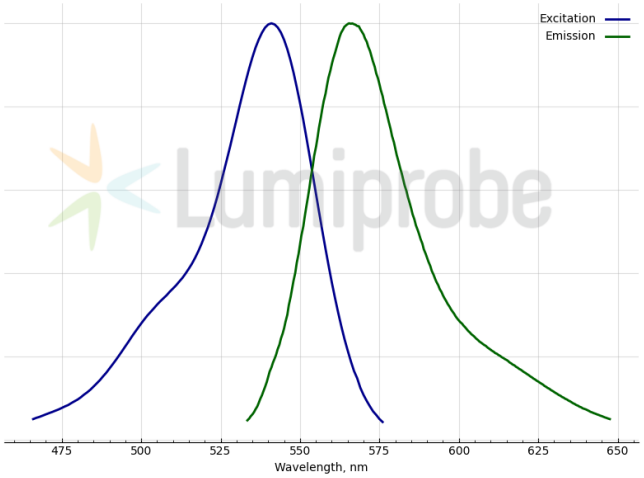
CytoTracer® Orange CMTMR is a fluorescent orange probe designed to label viable cells and track them over extended periods. At recommended working concentrations, it displays low cytotoxicity and exerts negligible effects on cell proliferation rates or overall cellular physiology. The reagent is suitable for assessing cell proliferation, viability, spatial localization, and migratory behavior in both *in vivo* and *in vitro* experiments.

This cell-permeable stain undergoes intracellular conversion to membrane-impermeable product. Upon division, the label is passed exclusively to daughter cells without transferring to neighboring cells, and the fluorescence remains detectable for at least 72 hours, typically persisting through three to six population doublings.

The compound features a chloromethyl group that reacts with intracellular thiol-containing components via a glutathione S-transferase-dependent mechanism. This property ensures that the dye is retained within cells even after fixation and permeabilization, making it compatible with subsequent immunofluorescence staining.



Structure of CytoTracer Orange CMTMR



Excitation and emission spectra of CytoTracer Orange CMTMR

General properties

Appearance:	red solid
Molecular weight:	554.0
CAS number:	323192-14-9
Molecular formula:	$C_{32}H_{28}ClN_3O_4$
IUPAC name:	9-[2-carboxy-4(or 5)-[[4-(chloromethyl)benzoyl]amino]phenyl]-3,6-bis(dimethylamino)-xanthylium, inner salt
Quality control:	NMR ^1H and HPLC-MS (85+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid exposure to light.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	540
Emission maximum, nm:	565