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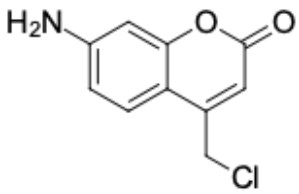
CytoTracer® Blue CMAC

http://www.lumiprobe.com/p/cmac-celltracker-blue

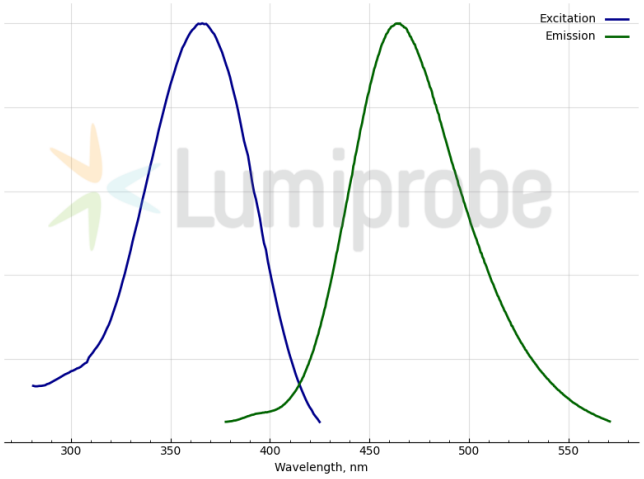
CytoTracer® Blue CMAC is a blue fluorescent dye designed for long-term labeling and tracking of live cells. At recommended working concentrations, it exhibits low cytotoxicity and does not significantly affect cell proliferation or normal cellular functions. The dye is suitable for both *in vitro* and *in vivo* studies, including analyses of cell proliferation, viability, migration, and localization.

CytoTracer® Blue CMAC readily penetrates living cells, where it is converted into membrane-impermeant fluorescent product that is retained intracellularly. As labeled cells divide, the fluorescence is inherited by daughter cells without transferring to neighboring cells, allowing reliable tracking for at least 72 hours or across three to six rounds of cell division.

The dye contains a reactive chloromethyl group that forms stable covalent bonds with intracellular thiol-containing molecules through a glutathione S-transferase-mediated reaction. As a result, the fluorescent signal is preserved following fixation and permeabilization, making CytoTracer® Blue CMAC fully compatible with downstream immunofluorescence staining protocols.



Structure of CytoTracer Blue CMAC



Excitation and emission spectra of CytoTracer Blue CMAC

General properties

Appearance:	beige powder
Molecular weight:	209.63
CAS number:	147963-22-2
Molecular formula:	$C_{10}H_8ClNO_2$
Solubility:	good in DMSO, DMF
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:	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:	345
Emission maximum, nm:	465