

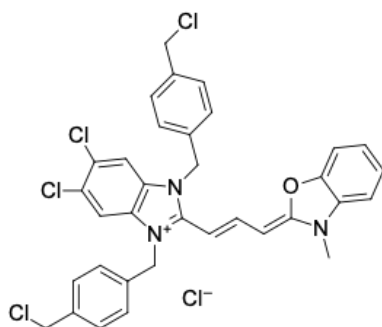
LumiTracker® Mito Green FM

<http://www.lumiprobe.com/p/mitotracker-green-fm>

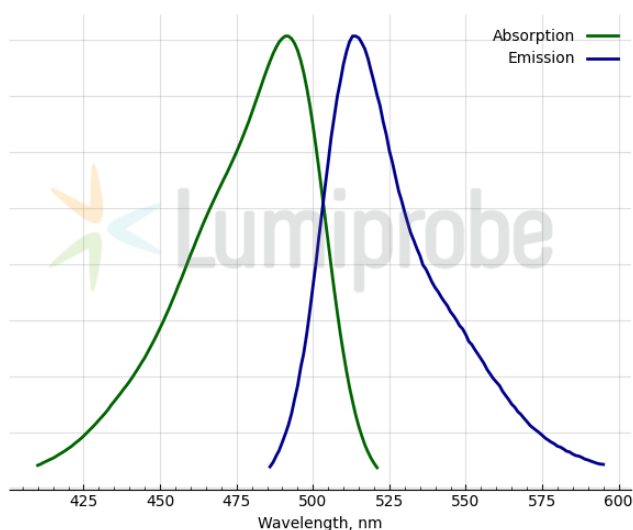
LumiTracker® Mito Green FM is a cationic green-fluorescent dye that stains mitochondria in live cells. The dye passively diffuses across the plasma membrane and, unlike other mitochondrial dyes, selectively accumulates in the mitochondrial matrix in a potential-independent manner^[1]. Because of this, LumiTracker Mito Green FM is more often used to determine mitochondrial mass and localization than to assess mitochondrial health (activity)^[2]. Nevertheless, caution is needed when interpreting the results, as some studies indicate that the accumulation of LumiTracker Mito Green FM in mitochondria, albeit to a lesser extent, may also depend on the mitochondrial potential^[3].

The fluorescence of LumiTracker Mito Green FM disappears after fixation with aldehydes, so this dye is only suitable for working with living cells.

[1] Cytotechnology. 2008. 56:145-149; [2] MethodsX. 2020. 7:100938; [3] Front. Cell. Neurosci. 2016. 10:76.



Structure of LumiTracker Mito Green FM



Absorption and emission spectra of Mito Green FM

General properties

Appearance:	orange solid
Molecular weight:	671.88
Molecular formula:	C ₃₄ H ₂₈ Cl ₅ N ₃ O
Quality control:	NMR ¹ 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:	491
ε, L·mol ⁻¹ ·cm ⁻¹ :	93500
Emission maximum, nm:	513