

LysoTracker Green

IS-L991-5 LysoTracker Green 5x50 ul
IS-L991-20 LysoTracker Green 20x50 ul

LysoTracker Green is a dye that can freely permeate through the cell membranes without any additional detergents; it concentrates in organelles with a low pH such as lysosomes. In contrast with 2,4-dinitrophenol (DNP), this dye does not require the use of antibodies for organelle visualization.

The LysoTracker Green molecule contains boron dipyrromethene (BDP) fragment, which gives it hydrophobic properties and good cell membrane permeability. In addition, this dye contains an amino group that acts as a weak base. At neutral pH, it is not completely protonated, and the dye molecule remains relatively neutral, thus allowing better cell membrane permeability. Getting into lysosomes with an acidic pH, the dye is likely to become protonated and thus remains in the organelle with a low pH.

Living cells are labeled with nanomolar concentrations of LysoTracker Green, and staining runs within several minutes. LysoTracker Green can alter lysosomal pH, so longer incubation can result in increased pH, and it is recommended to stain for 3 to 7 min at 37 °C (depending on the specific cell line and staining protocol) before visualization using fluorescent microscopy.

LysoTracker Green has an absorption maximum at 504 nm and a fluorescence maximum at 511 nm. We also offer LysoTrackerRed for organelle visualization in the red channel (absorption and fluorescence maxima at 577 nm and 590 nm, respectively).

LysoTracker Green is supplied as a 1 mM solution in DMSO.

General properties

Spectral properties:

Excitation/absorption maximum, nm: 504

ϵ , L·mol⁻¹·cm⁻¹: 92000

Emission maximum, nm: 511

Fluorescence quantum yield:0.97

Storage time in months: 12

Storage conditions: Store at -20°C in the dark. Desiccate. Avoid freeze-thaw cycles.
Store in single-use aliquots, if possible.
Transportation: at RT for up to 3 weeks.

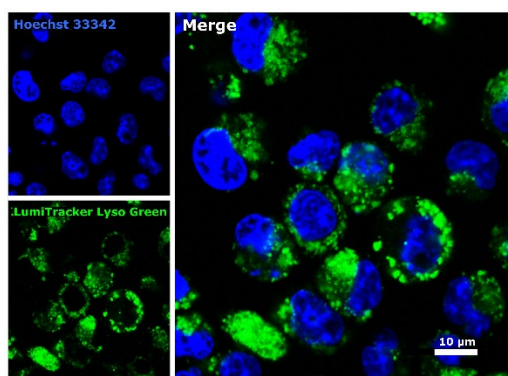
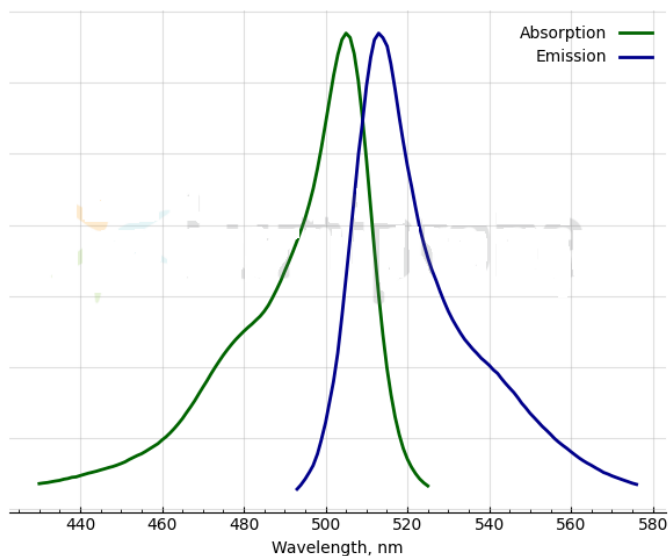
Recommendations for using the dye:

Working concentration: 50 to 75 nM.*

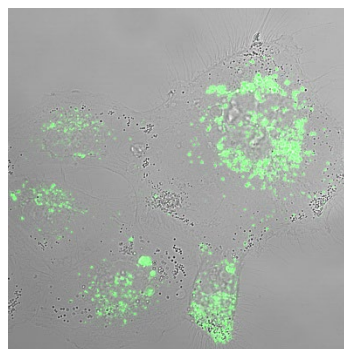
Staining: 3 to 7 min at 37 °C in 1× PBS (just before visualization, as a separate stage during combined staining with other dyes).

*Concentration and/or staining time can be increased depending on the specific cell line.

Absorption and emission spectra of Lyso Tracker Green



Vital staining of lysosomes of RAW 264.7 mouse macrophage cells with LysoTracker Green



Vital staining of lysosomes of RAW 264.7 mouse macrophage cells with LysoTracker Lyso Green

For Research use only
IMMUNOLOGICAL SCIENCES

Web-site: www.immunologicalsciences.com - E-Mail: info@immunologicalsciences.com