

# LYSO-ID<sup>®</sup> Green

## detection kit

The LYSO-ID<sup>®</sup> Green detection kit contains an acidic organelle-selective dye suitable for live-cell staining. Conventional fluorescent stains for acidic organelles, such as Acridine Orange (Prod. No. ENZ-52405), form metachromatic artifacts that interfere with multicolor imaging applications. LYSO-ID<sup>®</sup> Green dye generates emission profiles that can be multiplexed with other fluorophores. The dye accumulates in acidic compartments, such as endosomes, lysosomes, and secretory vesicles. Low micromolar concentrations of LYSO-ID<sup>®</sup> Green dye are sufficient for staining mammalian cells. This has been validated with the human cervical carcinoma cell line, HeLa, the human T-lymphocyte cell line, Jurkat, and the human bone osteosarcoma epithelial cell line, U2OS. The LYSO-ID<sup>®</sup> Green dye is a new green-emitting, cell-permeable small organic probe molecule that spontaneously localizes to live cell acidic organelles. It can be readily used in combination with other common UV and visible light excitable fluorescent dyes and various fluorescent proteins in multicolor imaging and detection applications. The LYSO-ID<sup>®</sup> Green dye is suitable for both short-term and long-term tracking studies. It emits in the FITC region of the visible light spectrum, and is highly resistant to photobleaching, concentration quenching and photoconversion. The LYSO-ID<sup>®</sup> Green detection kit is specifically designed for use with RFP-expressing cell lines, as well as cells expressing blue, cyan or orange fluorescent proteins (BFPs, CFPs, OFPs). A lysosome perturbation agent, chloroquine, is provided as a positive control for monitoring changes in lysosome number and volume. A nuclear counterstain is also provided in the kit to highlight this organelle as well.

Citations: 19

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### Ordering Information

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ENZ-51034-0100	100 tests
ENZ-51034-K500	500 tests

Manuals, SDS & CofA

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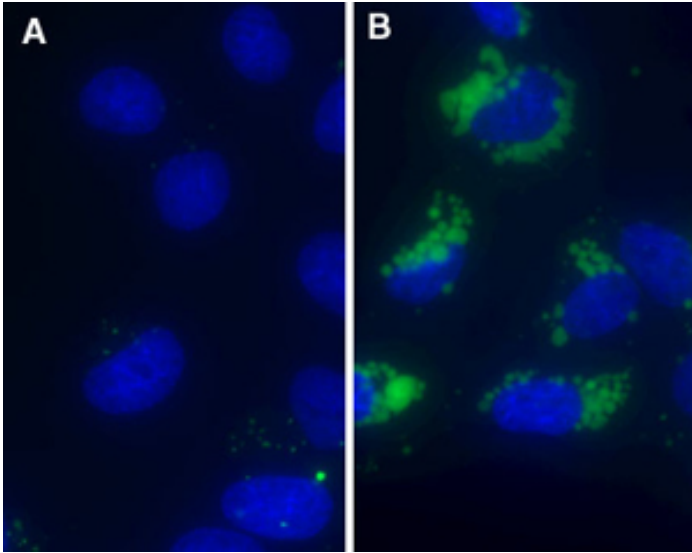


Figure 1: LYSO-ID<sup>®</sup> Green dye is a cell-permeant fluorescent probe that selectively associates with lysosomes and other acidic organelles (A). Cells pre-treated for 20 hours with weakly basic cell-permeant compounds, such as chloroquine, show dramatic increases in lysosome-like vesicle number and volume (B). Nuclei are counter-stained with Hoechst 33342 in the images.

# Handling & Storage

<b>Use/Stability</b>	With proper storage, the kit components are stable for 1 year from the date of receipt.
<b>Handling</b>	Avoid freeze/thaw cycles.
<b>Short Term Storage</b>	-20°C
<b>Long Term Storage</b>	-80°C
<b>Shipping</b>	Blue Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

**Application** Fluorescence microscopy, Fluorescent detection

**Application Notes** Specifically designed for use with RFP-expressing cell lines, as well as cells expressing blue, cyan or orange fluorescent proteins (BFPs, CFPs, OFPs).

**Contents** LYSO-ID<sup>®</sup> Green detection reagent  
Hoechst 33342 nuclear staining  
Chloroquine control  
10x Assay buffer

**Quality Control** A sample from each lot of LYSO-ID<sup>®</sup> Green detection kit is used to stain HeLa cells using the procedures described in the user manual. Analyzed by microscopy, the stained cells exhibit dramatic increase in lysosome-like vesicle number and volume in the chloroquine-treated HeLa cells.

## Technical Info / Product Notes

The LYSO-ID<sup>®</sup> Green detection kit is a member of the CELLESTIAL<sup>®</sup> product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLESTIAL<sup>®</sup> reagents and kits are optimal for use in demanding cell analysis applications involving confocal microscopy, flow cytometry, microplate readers and HCS/HTS, where consistency and reproducibility are required.



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