

Lipid Droplet Probe Green

Catalog# / Size 421920 / 125 µL

Regulatory Status RUO

Description Intracellular lipid droplets are cytoplasmic organelles involved in the storage and regulation of triglycerides and cholesterol esters. Lipid Droplet Probe Green is a fluorogenic neutral lipid stain that rapidly accumulates in lipid droplets, where they become brightly fluorescent. The dyes can be used to stain lipid droplets in both live and fixed cells, with no wash step required. Cells can also be fixed and permeabilized after staining. Lipid Droplet Probe Green has an excitation at around 430 nm, and can be excited equally well at 405 nm or 488 nm. In cells, it stains lipid droplets with bright green fluorescence detectable in the FITC channel.

Product Details

Verified Reactivity Human

Reported Reactivity Mouse, Rat

Formulation 1 vial of 125 µL Lipid Droplet Probe Green in DMSO

Storage & Handling 2-8°C

Application [Live cell imaging - Quality tested](#)
[FC - Verified](#)

Application Notes Lipid Droplet Probe Green is a fluorescent dye that specifically stains lipid droplets in live or fixed cells. It does not require a wash step and shows minimal background on cellular membranes or organelles. This probe has an excitation at around 430 nm, and can be excited equally well at 405 nm or 488 nm. In cells, it stains lipid droplets with bright green fluorescence detectable in the FITC channel.

Components:

125 µL of Lipid Droplet Probe Green 1000X Stock Solution in DMSO (Store at 2-8°C, protected from light)

Required Materials Not Included:

Stain Buffer: Phenol-free media, HBSS, or Cell Staining Buffer (Cat. No. 420201)

Imaging Guidelines:

Ex/Em = 427/585 nm

Fluorescence microscope filter set: FITC or AmCyan

Flow cytometry channel: FITC or Pacific Orange

Assay Protocol:

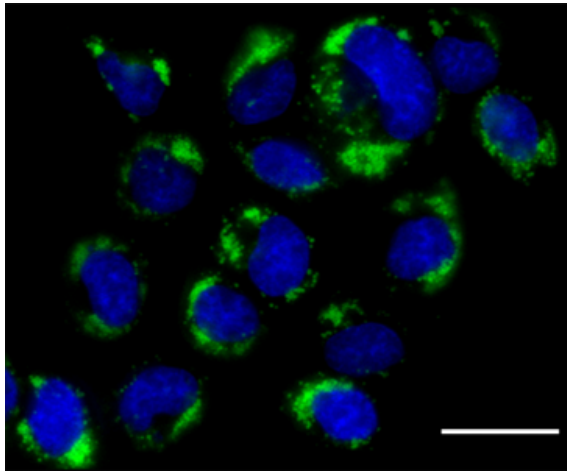
1. Prepare 1x Lipid Droplet staining solution: Dilute the 1000X Lipid Droplet Probe Stock Solution in culture media (ideally phenol free) at 1:1000 to make 1x staining solution. **Note:** Final volume to be determined by user. We recommend 100 µL per well in a 96-well plate. Staining conditions and probe concentration may be optimized if needed.
2. Remove media from cells and add the desired volume of 1x staining solution. If cells are in suspension, spin down and resuspend in 1x staining solution.
3. Optional: Include live-cell nuclear counterstain such as DRAQ5™ (Cat. No. 424101).
4. Incubate cells at 37°C for 30 minutes (or longer).
5. Optional: Wash cells twice with buffer, add desired volume of clear buffer or media.
6. Proceed directly to imaging or flow cytometry analysis or fix cells with 4% PFA or Fixation Buffer (Cat. No. 420801).

Antigen Details

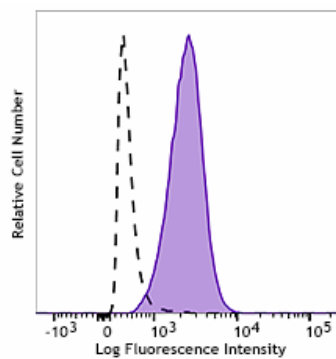
Distribution Cytoplasm, Lipid Droplets

Biology Area	Cell Biology
Molecular Family	Organelle Markers
Gene ID	NA

Product Data



Live-cell fluorescence imaging of HepG2 cells treated with Oleic acid and stained with Lipid Droplet Probe Green. Nuclei were stained with Hoechst. Images were captured using a 60X objective. Scale bar: 20 μ m



THP-1 cells treated with Oleic acid stained with Lipid Droplet Probe Green (filled histogram) or left unstained (open histogram).

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587