LiveONLY™ Nuclear Green

Catalog number: 17687
Unit size: 200 Tests

Component	Storage	Amount (Cat No. 17687)
LiveONLY™ Nuclear Green	Freeze (< -15 °C), Minimize light exposure	1 vial (25 µL)

OVERVIEW

LiveONLY™ Nuclear Green is a nuclear dye designed to stain nucleus exclusively in live cells. This unique feature allows to distinguish live cells from dead or membrane-compromised cells. Its cell permeable design enables selective accumulation in the nucleus, producing a green fluorescence without the need for fixation or permeabilization.

The simple mix-and-read protocol requires minimal hands-on time, making it ideal for seamless integration into standard imaging workflows. Compatible with a wide range of cell lines and imaging systems, LiveONLY™ Nuclear Green is ideal for live-cell applications such as real-time cell tracking, viability assessment, and high-content screening.

AT A GLANCE

1. Prepare the cell samples and treat cells as desired.
2. Add the dye working solution.
3. Incubate for 10 to 30 minutes.
4. Analyze with fluorescence microscope using FITC filter.

Note: Allow dye to warm to room temperature before opening the vials. Because this reagent binds to nucleic acids, it should be treated as a potential mutagen and handled with appropriate care. The DMSO stock solution should be handled with particular caution as DMSO is known to facilitate the entry of organic molecules into tissues.

KEY PARAMETERS

Fluorescence microscope

Emission	FITC filter
Excitation	FITC filter
Recommended plate	Black wall/clear bottom

PREPARATION OF WORKING SOLUTION

LiveONLY™ Nuclear Green dye working solution:

Add 12 µL of LiveONLY™ Nuclear Green to 10 mL of cell culture medium or HHBS buffer (Cat# 20011) and mix well.

Note: 10 mL volume is sufficient for 100 tests. Make LiveONLY™ Nuclear Green dye working solution sufficient for the assays and use promptly.

Note: Store unused LiveONLY™ Nuclear Green at -20 °C for further use.

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be used as a guideline and can be adapted for any cell type. Growth medium, cell density, the presence of other factors may influence staining.

1. Prepare the cell samples and treat cells as desired in a 96-well plate.
2. Remove the cell culture medium.
3. Add 100 µL of LiveONLY™ Nuclear Green dye working solution and incubate for 10 to 30 minutes at 37°C in a 5% CO_2 incubator, protected from light. (Total volume = 100 µL/well).
   Note: For optimal staining, try a range of dye concentrations to determine the optimal staining.
4. Observe the cells using a fluorescence microscope with FITC filter set.
   Note: Cell culture medium with dye working solution can be removed and be replaced with aqueous buffers such as HHBS buffer, if necessary.

EXAMPLE DATA ANALYSIS AND FIGURES

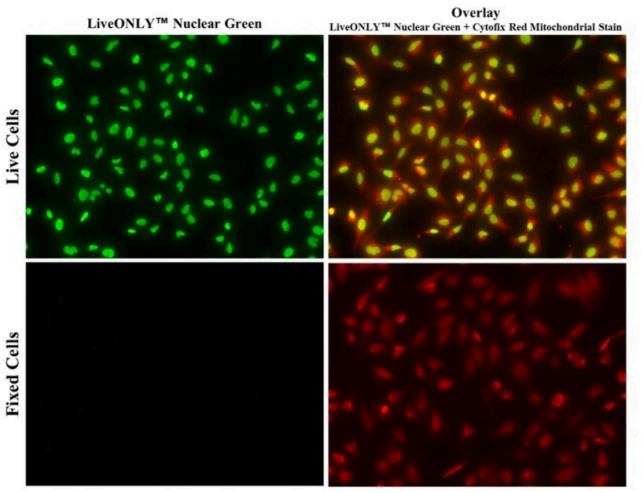

Figure 1. The fluorescence images of HeLa cells stained with LiveONLY™ Nuclear Green (#17687) and Cytofix Red Mitochondrial Stain (#23200). The LiveONLY™ Nuclear Green (#17687) is showing selective nuclear staining in live cells only; dead cells do not show any nuclear staining.

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