Nuclear Red™ LCS1 *5 mM DMSO Solution*

Catalog number: 17542
Unit size: 0.5 ml

Component	Storage	Amount (Cat No. 17542)
Nuclear Red™ LCS1	Freeze (< -15 °C), Minimize light exposure	1 vial (0.5 ml)

OVERVIEW

Our Nuclear Red™ LCS1 is a fluorogenic, DNA-selective and cell-permeant dye for analyzing DNA content in living cells. The Nuclear Red™ LCS1 has its red fluorescence significantly enhanced upon binding to DNA. It can be used in fluorescence imaging, microplate and flow cytometry applications. This DNA-binding dye might be used for multicolor analysis of live cells with proper filter sets.

AT A GLANCE

1. Prepare the cells.
2. Add Nuclear Red™ LCS1 working solution.
3. Wash and monitor fluorescence under the microscope.

KEY PARAMETERS

Fluorescence microscope

Emission	Cy5 filter set
Excitation	Cy5 filter set
Recommended plate	Black wall/clear bottom

PREPARATION OF WORKING SOLUTION

Prepare a 2 to 10 µM working solution of Nuclear Red™ LCS1 in HHBS buffer (#20011) or a buffer of your choice. Protect the working solution from light by covering it with foil or placing it in the dark. 10 mL solution is sufficient for a 96 well plate.

Note: All unused stock solutions should be aliquoted into single-use vials and stored at <-15 °C.

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be adapted for most cell types. growth medium, cell density, the presence of other cell types and factors may influence staining.

1. Add 2 to 10 µM into the cells (either suspension or adherent cells).
   Note: For optimal staining, we recommend trying several dye concentrations to yield the desired result. High dye concentration tends to cause nonspecific staining of other cellular structures.
2. Stain the cells for 15-60 minutes.
3. Remove the dye working solution and add HHBS or PBS buffer.
4. Image under Cy5 filter set of fluorescence microscope.
   Note: Nuclear Red LCS1 is a light-activated fluorophore, so you may observe a change in intensity upon increased laser exposure.
   Note: Nuclear Red LCS1 maybe optimized for fluorescence microplate reader, or flow cytometers.

EXAMPLE DATA ANALYSIS AND FIGURES

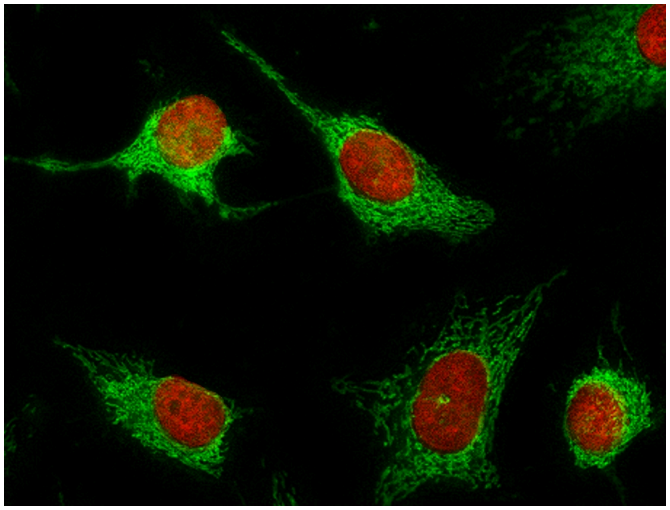

Figure 1. Fluorescence images of HeLa cells stained with MitoLite™ Green FM (green) and co-stained with nuclei stain Nuclear Red™ LCS1 Cat. #17542 (red).

DISCLAIMER

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