

ER-Tracker Green

Cat. No. PO-013

Lot. No. (See product label)



Product Name

ER-Tracker Green

Product Overview

ER-Tracker Green is used for fluorescence imaging of the endoplasmic reticulum.

Molecular Mass

783.1

Usage

Endoplasmic reticulum fluorescent probe

Introduction

ER-Tracker Green is an endoplasmic reticulum (ER) green fluorescent probe with cell membrane permeability, highly selective for endoplasmic reticulum. It can be used for endoplasmic reticulum-specific fluorescent staining of living cells.

Handling

At a dilution of 1:1,000, 10 mL of ER-Tracker Green working solution can be prepared per 10 μ L; at a dilution of 1:3000, 30 mL of ER-Tracker Green working solution can be prepared per 10 μ L.

Assay Protocol

Fluorescent labeling of the endoplasmic reticulum.

1. Remove the cell culture medium and wash the cells grown on coverslips with an appropriate amount of solution such as HBSS with Ca^{2+} & Mg^{2+} (Hanks' Balanced Salt Solution with Ca^{2+} & Mg^{2+}).
2. Remove the wash solution and add the ER-Tracker Green staining solution prepared in step 1 and pre-warmed at 37°C. Incubate with the cells for 15-30 minutes at 37°C.
3. Remove the ER-Tracker Green staining solution and wash the cells 1-2 times with a cell culture medium.
4. The cells are then observed, usually with a fluorescent microscope or laser confocal microscope. At this point, a bright, strongly fluorescent staining of the endoplasmic reticulum can be observed.
5. If ER-Tracker Green stained cells need to be fixed, they can be fixed for 2 minutes at 37°C using 4% formaldehyde. After fixation, the cells can be washed 2-3 times for 5 minutes each with an appropriate washing solution, followed by re-staining or dropwise addition of an appropriate anti-fluorescence quenching blocking solution and final blocking for observation. Note: ER-Tracker Green stained cells should not be permeabilized with Triton X-100, as Triton X-100 permeabilization treatment will result in loss of fluorescence staining by ER-Tracker Green.

Category

Plant Organelle Fluorescent Probes

Excitation/Emission (nm)

504/511

Molecular Formula

$\text{C}_{37}\text{H}_{42}\text{BCIF}_2\text{N}_6\text{O}_6\text{S}$

Notice

Fluorescent dyes are subject to quenching and should be protected from light to slow down the quenching of fluorescence.

Storage

Store at -20°C away from light, valid for 6 months.

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY