7040 Virginia Manor Road
Beltsville, MD 20705, USA
Web: www.abpbio.com;
Email: info@abpbio.com

Product Information

ER-Track™ Red

Catalog Number	Unit Size
C065	100 µg

Storage upon receipt:
- -20°C
- Protect from light

Product Description

ER-Track Red dye is cell-permeant, live-cell stain that is highly selective for the endoplasmic reticulum (ER). **ER-Track Red dye** rarely stains mitochondria, unlike the conventional ER stain $DiOC_6$ (3), and staining at low concentrations does not appear to be toxic to cells. When cells are stained using the optimized protocol provided, staining patterns are partially retained after treatment with formaldehyde. This stain consists of the red-fluorescent BODIPY TR dye and glibenclamide. Glibenclamide (glyburide) binds to the sulphonylurea receptors of ATP-sensitive K^+ channels which are prominent on ER. **ER-Track Red dye** has an excitation and emission maximum of 587/615 nm and can be efficiently excited using a TRITC filter.

Experimental Protocols

This protocol was optimized using bovine pulmonary artery endothelial cells and has been confirmed in other common cell lines. Recommendations for experimental protocols should be used as a starting point, and optimal labeling conditions for each cell type should be determined empirically.

Reagent Preparation

ER-Track Red dye is supplied as 100 µg of lyophilized material. Prepare a 1 mM stock solution of ER-Track Red: dissolve the contents of the vial in 106 µL of DMSO. It is recommended that the 1 mM stock solution can be separated into aliquots and stored frozen with desiccant.

Cell Preparation and Staining

1.1 Prepare staining solution. Dilute the 1 mM stock solution to the final working concentration. We recommend working concentrations of ~1 µM for ER-Track Red dye. To minimize potential labeling artifacts, use the lowest dye concentrations possible. Best results are obtained when staining is performed in Hank's Balanced Salt Solution with calcium and magnesium (HBSS/Ca/Mg) at 37ºC/5% CO_2.

1.2 Stain the cells. For adherent cells, remove the medium from the culture dish, rinse with HBSS, and add prewarmed staining solution. Incubate the cells for approximately 15-30 minutes at 37ºC. Replace the staining solution with fresh probe-free medium and view the cells using a fluorescence microscope. If the stained cells are to be fixed, refer to the fixation steps below.

Fixation for ER-Track Red Dye

2.1 Fix cells. If stained cells are to be fixed, fixation is recommended using 4% formaldehyde for 2 minutes at 37ºC.

2.2 Wash and view cells. After fixation, perform two 5-minute washes in any suitable buffer prior to mounting, viewing, or further staining. Permeabilization is not recommended; signal is not retained after permeabilization with Triton® X-100.