Data Sheet (Cat.No.T212058)

TargetMol

ER-Tracker Red (solution)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	ER-Tracker Red (solution) dye is a derivative of BODIPY dyes conjugated to Glibenclamide, exhibiting high selectivity for binding to the endoplasmic reticulum without toxicity to cells at low concentrations. This environmentally sensitive probe retains some fluorescence even after formaldehyde treatment and is characterized by high fluorescence lifetime and good extinction coefficients. Glibenclamide acts as an ATP-sensitive K+ channel blocker (Kir6, KATP) and CFTR Cl- channel blocker, binding within the endoplasmic reticulum. Note that ER-Tracker is not suitable for staining fixed cells. Ex/Em=587/615 nm.
Targets(IC50)	Others
In vitro	ER-Tracker Preparation and Application: To prepare a 1 mM stock solution of ER-Tracker, dissolve 100 μg in 109 μL of anhydrous DMSO. Store aliquots of this stock solution at -20°C or -80°C, protected from light. For the working solution, dilute the stock in pre-warmed serum-free cell culture medium or PBS to concentrations of 100 nM-1 μM, adjusting as required for your experiments. Prepare fresh working solutions as needed. For staining suspension cells, centrifuge to collect cells and wash with PBS twice for 5 minutes each. Maintain a cell density of 1×10^6/mL. Incubate cells with 1 mL of the ER-Tracker working solution at room temperature for 5-30 minutes. Centrifuge at 400 g for 3-4 minutes and discard the supernatant, then wash cells twice with PBS for 5 minutes each. Resuspend cells in 1 mL of serum-free culture medium or PBS, and proceed with observation using a fluorescence microscope or flow cytometry. For adherent cells, culture them on sterile coverslips. Remove the coverslips from the medium and discard excess medium. Add 100 μL of the dye working solution, ensuring even coverage of the cells, and incubate for 5-30 minutes. Remove the dye solution and wash the cells 2-3 times with medium for 5 minutes each, then observe using a fluorescence microscope. If flow cytometry is required, digest and resuspend the cells with trypsin before staining. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

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