Data Sheet (Cat.No.T212686)

TargetMol

ER-Tracker Red

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 dye is a derivative of BODIPY conjugated with Glibenclamide, displaying high selectivity for the endoplasmic reticulum. At low concentrations, it remains non-toxic to cells and serves as an environmentally sensitive probe that retains some fluorescence after formaldehyde treatment. It is characterized by its high fluorescence lifetime and strong extinction coefficient. Glibenclamide acts as an ATP-dependent K+ channel blocker (Kir6, KATP) and a CFTR Cl- channel blocker, binding within the endoplasmic reticulum. ER-Tracker is not suitable for staining fixed cells. Ex/Em = 587/615 nm.
Targets(IC50)	Others
In vitro	ER-Tracker: For preparing the stock solution, dissolve 100 μg of ER-Tracker in 109 μL of anhydrous DMSO to achieve a 1 mM concentration. Note: It is recommended to aliquot and store the ER-Tracker stock solution protected from light at -20°C or -80°C. For the working solution, dilute the stock in pre-warmed serum-free cell culture medium or PBS to reach a concentration of 100 nM to 1 μM, adjusting as necessary and preparing it fresh for immediate use. For cell staining (suspension cells), centrifuge cells and wash twice with PBS, each wash lasting 5 minutes, ensuring a cell density of 1×10^6/mL. Add 1 mL of ER-Tracker working solution and incubate at room temperature for 5-30 minutes. Centrifuge at 400 g for 3-4 minutes, discard the supernatant, and wash the cells twice with PBS, each for 5 minutes. Resuspend cells in 1 mL of serum-free medium or PBS for observation under a fluorescence microscope or flow cytometer. For cell staining (adherent cells), culture the cells on sterile coverslips, remove them from the medium, and drain excess medium. Add 100 μL of dye working solution, gently mixing to cover the cells, and incubate for 5-30 minutes. Remove the dye working solution and wash with the medium 2-3 times, each for 5 minutes, then observe with a fluorescence microscope. Note: For flow cytometer analysis, cells need to be trypsinized and resuspended 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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