53271 Mito Red

Application

Mito Red is a cell membrane permeable Rhodamine-based dye. It localizes in mitochondria and emits red fluorescence. The interaction of Mito Red with mitochondria depends on the membrane potential of the mitochondria. Mitochondria can be stained with 20 to 200 nm Mito Red. The excitation and emission wavelengths of Mito Red are 560 nm and 580 nm, respectively.

Product Description

Chemical Name:	9-[2-(4'-Methylcoumarin-7'-oxycarbonyl)phenyl]-3,6-bis(diethylamino)xanthylium chloride
Purity:	> 70 % (HPLC)
Fluorescence wavelength:	λ_{ex}: 569 nm, λ_{em}: 594 nm in DMSO
Quantity	8 vials of 50 µg

Procedure

1) Dissolve 50 µg Mito Red (1 tube) in 78 µl of DMSO to prepare 1 mM Mito Red-DMSO solution.
2) Prepare cells with a glass slide. The cell number should be $5x10^4$ to $5x10^5$ cells per ml.
3) Incubate the slide and wash cells with PBS or Hank's medium.
4) Dilute the 1 mM Mito Red solution with culture medium to prepare 20-200 nM Mito Red buffer solution.
5) Add the Mito Red buffer solution[a)] to the glass slide and incubate at 37 ºC for 30 min to 1 hour.
6) Remove the Mito Red buffer solution and wash cells with culture medium.[b)]
7) Observe the cells using a fluorescence microscope with a Rhodamine filter.

a) Incubate the Mito Red buffer solution at 37 ºC prior to adding to cells.
b) For fixing after washing cells, add 10% formalin buffer and incubate for 15-20 min, and the wash with PBS.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.