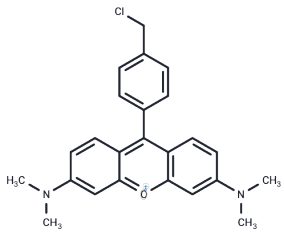
Data Sheet (Cat.No.T86903)

TargetMol

MitoTracker Orange CMTMRos

Chemical Properties



CAS No. : 199116-50-2

Formula: C24H24Cl2N2O

Molecular Weight: 427.37

Storage: Store at low temperature,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	MitoTracker Orange CMTMRos is a live cell fluorescent dye that labels mitochondria in living cells by mitochondrial membrane potential accumulation and is suitable for live cell imaging and apoptosis studies.
Targets(IC50)	Mitochondrial Metabolism
In vitro	Solution preparation: 1. Use DMSO to prepare a certain concentration of stock solution (10 mM), and the working solution is prepared to 10-1000 nM. Note: Please store the stock solution at -20℃ or -80℃ to avoid repeated freezing and thawing. Please prepare the working solution for immediate use. Experimental operation steps: This experiment is divided into live cell and fixed cell labeling. For live cells, please follow steps 1-7, and for fixed cells, please follow steps 8-13. Cell labeling: 1. Prepare 25-500 nM working solution in the required cell culture medium and warm it to the cell culture temperature. 2. Aspirate the culture medium from the cells growing on the coverslip. 3. Immerse the cells in the labeling medium for 15-45 minutes at 37°C. 4. Aspirate the labeling medium and rinse the cells three times with the medium. 5. Mount the cells. 6. Examine the cells using a fluorescence microscope. If fluorescent staining is too low, try one of the following options: 1) Incubate in normal medium for an additional 30 minutes to allow thiol binding to proceed; 2) Try a higher initial concentration of labeling solution. 7. When fluorescence is sufficient, image the cells. 8. Perform steps 1-4, but use a labeling solution with a working concentration between 100 and 1000 nM. 9. Rinse cells three times with PBS. 10. Fix cells in 3.7% formaldehyde (pH 7.4) in PBS for 10 minutes. 11. Aspirate and rinse cells three times in PBS for 5 minutes each. 12. Mount coverslips. 13. Image the cells.

Solubility Information

Solubility	DMSO: 25 mg/mL (58.5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3399 mL	11.6995 mL	23.3989 mL
5 mM	0.468 mL	2.3399 mL	4.6798 mL
10 mM	0.234 mL	1.1699 mL	2.3399 mL
50 mM	0.0468 mL	0.234 mL	0.468 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Chazotte B. Labeling mitochondria with MitoTracker dyes. Cold Spring Harb Protoc. 2011 Aug 1;2011(8):990-2.