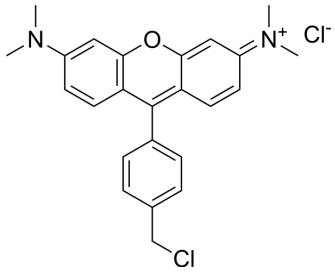
MitoTracker Orange CMTMRos

Cat. No.:	HY-D1696
CAS No.:	199116-50-2
Molecular Formula:	$C_{24}H_{24}Cl_2N_2O$
Molecular Weight:	427.37
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (73.12 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3399 mL	11.6995 mL	23.3989 mL
	5 mM	0.4680 mL	2.3399 mL	4.6798 mL
	10 mM	0.2340 mL	1.1699 mL	2.3399 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MitoTracker Orange CMTMRos is a fluorescent dye that labels mitochondria within live cells utilizing the mitochondrial membrane potential (Ex/Em: 551/576 nm)[1].

IC_{50} & Target

Mitochondria[1]

In Vitro

Guidelines[1] (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).
Labeling of Cells:
For live cells, follow Steps 1–7. For fixed cells, follow Steps 8–13.
1. Prepare a labeling solution at 25–500 nM in the desired cell culture medium, and warm it to the cell culture temperature.
2. Aspirate the culture medium from cells grown on coverslips.
3. Immerse the cells in the labeling medium for 15–45 min at 37?C.
4. Aspirate the labeling medium, and rinse the cells three times with culture medium.
5. Mount the cells.
6. Check the cells using a fluorescence microscope. If the fluorescence staining is too low, try one of the following options:
i. Incubate for an additional 30 min in the normal culture medium to allow the thiol conjugation to proceed.

ii. Try a higher initial concentration of the labeling solution.
7. When the fluorescence is sufficient, image the cells.
8. Carry out Steps 1–4, but use a labeling solution at a working concentration between 100 and 1000 nM.
9. Rinse the cells three times with PBS+.
10. Fix the cells for 10 min in 3.7% formaldehyde in PBS (pH 7.4).
11. Aspirate and rinse the cells three times for 5 min each in PBS.
12. Mount the coverslips.
13. Image the cells.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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

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