HKSOX-1m (5/6-mixture) (hydrobromide)

Cat. No.: HY-D1156A

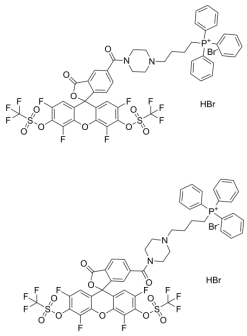
Molecular Formula: $C_{49}H_{37}Br_2F_{10}N_2O_{10}PS_2$

Molecular Weight: 1258.72

Target: Reactive Oxygen Species; Fluorescent Dye

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others

Storage: -20°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 : 200 mg/mL (158.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.7945 mL	3.9723 mL	7.9446 mL
	5 mM	0.1589 mL	0.7945 mL	1.5889 mL
	10 mM	0.0794 mL	0.3972 mL	0.7945 mL

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

BIOLOGICAL ACTIVITY

Description

HKSOX-1m (5/6-mixture) hydrobromide is a O_2 fluorescent probe for mitochondria-targeting (Ex/Em=509/534nm; green), exhibiting excellent selectivity and sensitivity toward O_2 over a broad range of pH, strong oxidants, and abundant reductants found in cells[1].

In Vitro

HKSOX-1m (5/6-mixture) hydrobromide (10 μM) sensitively captures signals for basal and Antimycin A (1 μM)-stimulated mitochondrial O_2 in differentiated human THP-1 cells, at very low laser power output (1% intensity at Ex 514 nm on Zeiss LSM 510 Meta)[1].

1. Preparation of HKSOX-1m (5/6-mixture) hydrobromide working solution
1.1 Preparation of the stock solution
Dissolve 1 mg HKSOX-1m (5/6-mixture) hydrobromide in 79 μL DMSO to obtain 10 mM of stock solution.
Note: It is recommended to store the stock solution at -20□ -80□ away from light and avoid repetitive freeze-thaw cycles.
1.2 Preparation of HKSOX-1m (5/6-mixture) hydrobromide working solution
Dilute the stock solution in serum-free cell culture medium or PBS to obtain 1-10 μM of working solution.
Note: Please adjust the concentration of HKSOX-1m (5/6-mixture) hydrobromide working solution according to the actual situation.
2. Cell staining

2.1 Suspension cells (6-well plate)
a. Centrifuge at 1000 g at 4□ for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.The cell density is 1×10^6/mL
b. Add 1 mL of working solution, and then incubate at room temperature for 5-30 minutes.
c. Centrifuge at 400 g at 4□ for 3-4 minutes and then discard the supernatant.
d. Wash twice with PBS, 5 minutes each time.
e. Resuspend cells with serum-free cell culture medium or PBS.Observation by fluorescence microscopy or flow cytometry.
2.2 Adherent cells
a. Culture adherent cells on sterile coverslips.
b. Remove the coverslip from the medium and aspirate excess medium.
c. Add 100 μL of working solution, gently shake it to completely cover the cells,and then incubate at room temperature for 5-30 minutes.
d. Wash twice with medium, 5 minutes each time.Observation by fluorescence microscopy or flow cytometry.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jun Jacob Hu, et al. Fluorescent Probe HKSOX-1 for Imaging and Detection of Endogenous Superoxide in Live Cells and In Vivo. J Am Chem Soc . 2015 Jun 3;137(21):6837-43.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA