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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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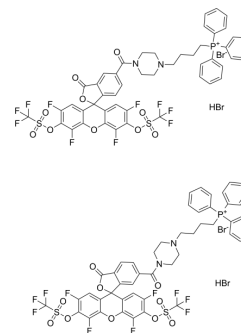
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HKSOX-1m (5/6-mixture) (hydrobromide)

Cat. No.:	HY-D1156A
Molecular Formula:	C ₄₉ H ₃₇ Br ₂ F ₁₀ N ₂ O 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)

Concentration	Mass			
	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 O₂ fluorescent probe for mitochondria-targeting (Ex/Em=509/534nm; green), exhibiting excellent selectivity and sensitivity toward O₂ 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 O₂ 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°C -80°C 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°C 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°C 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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