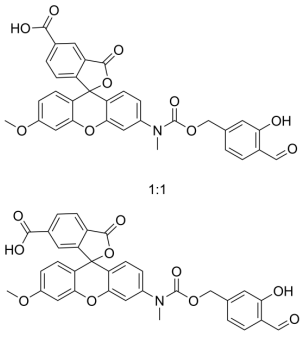
HKPerox-2

Cat. No.:	HY-D1157
CAS No.:	2245230-79-7
Molecular Formula:	$C_{32}H_{23}NO_{10}$
Molecular Weight:	581.53
Target:	Reactive Oxygen Species; Fluorescent Dye
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMF : 50 mg/mL (85.98 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7196 mL	8.5980 mL	17.1960 mL
	5 mM	0.3439 mL	1.7196 mL	3.4392 mL
	10 mM	0.1720 mL	0.8598 mL	1.7196 mL

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

BIOLOGICAL ACTIVITY

Description

HKPerox-2 is a highly sensitive green fluorescent probe for the specific detection of H_2O_2 in living cells with a maximum excitation wavelength and emission wavelength of 520 nm and 543 nm, respectively[2].

In Vitro

1. Preparation of HKPerox-2 working solution
1.1 Preparation of the stock solution
Dissolve 1 mg HKPerox-2 in 172 μL DMF 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 HKPerox-2 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 HKPerox-2 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.

CUSTOMER VALIDATION

- mSystems. 2023 Dec 4:e0102623.

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REFERENCES

[1]. Trends Cell Biol. 2007 Sep;17(9):422-7. doi: 10.1016/j.tcb.2007.07.009. Epub 2007 Sep 4.

[2]. Yang D, et, al. Diarylamine-based fluorogenic probes for detection of peroxynitrite. EP2809666B1.

[3]. Sen Ye, et al. Tandem Payne/Dakin Reaction: A New Strategy for Hydrogen Peroxide Detection and Molecular Imaging. Angew Chem Int Ed Engl. 2018 Aug 6;57(32):10173-10177.

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