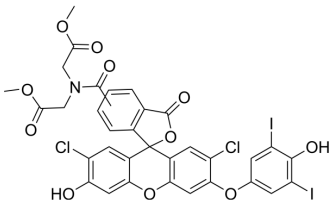
HKOH-1r

Cat. No.:	HY-D1159
CAS No.:	2138472-08-7
Molecular Formula:	$C_{33}H_{21}Cl_2I_2NO_{11}$
Molecular Weight:	938.28
Target:	Reactive Oxygen Species; Fluorescent Dye
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 95 mg/mL (101.25 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.0658 mL	5.3289 mL	10.6578 mL
	5 mM	0.2132 mL	1.0658 mL	2.1316 mL
	10 mM	0.1066 mL	0.5329 mL	1.0658 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 4.75 mg/mL (5.06 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 4.75 mg/mL (5.06 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

HKOH-1r is a highly sensitive green fluorescent probe for the specific detection of ·OH in living cells with a maximum excitation wavelength and emission wavelength of 500 nm and 520 nm, respectively[1].

In Vitro

1. Preparation of HKOH-1r working solution
1.1 Preparation of the stock solution
Dissolve 1 mg HKOH-1r in 107 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 HKOH-1r 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 HKOH-1r 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

- J Colloid Interface Sci. 2024 Jul 15:666:244-258.
- mSystems. 2023 Dec 4:e0102623.

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REFERENCES

[1]. Xiaoyu Bai, et al. HKOH-1: A Highly Sensitive and Selective Fluorescent Probe for Detecting Endogenous Hydroxyl Radicals in Living Cells. Angew Chem Int Ed Engl. 2017 Oct 9;56(42):12873-12877.

[2]. Bai X, et, al. HKOH-1: A Highly Sensitive and Selective Fluorescent Probe for Detecting Endogenous Hydroxyl Radicals in Living Cells. Angew Chem Int Ed Engl. 2017 Oct 9;56(42):12873-12877.

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