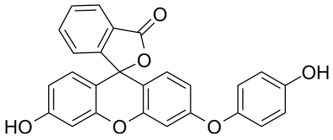
Hydroxyphenyl Fluorescein

Cat. No.:	HY-111330
CAS No.:	359010-69-8
Molecular Formula:	$C_{26}H_{16}O_6$
Molecular Weight:	424.4
Target:	Reactive Oxygen Species; Fluorescent Dye
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
Storage:	Solution, -20°C, protect from light, 2 years



BIOLOGICAL ACTIVITY

Description	Hydroxyphenyl Fluorescein (HPF) is a stable ROS fluorescent probe dye. Hydroxyphenyl Fluorescein has stronger specificity and stability than H2DCFDA (HY-D0940). Hydroxyphenyl Fluorescein can produce strong green fluorescence through hydroxyl radical reaction with intracellular peroxynitroso. Hydroxyphenyl Fluorescein can be applied for fluorescence microscopy, high-throughput imager, luciferase microplate reader or flow cytometry. Ex/Em=490/515 nm[1].
In Vitro	Preparation of HPF working solution 1.1 Preparation of the stock solution Dissolve 1 mg of HPF to obtain 10 mM of HPF. 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 HPF working solution Dilute the stock solution in serum-free cell culture medium or PBS to obtain 1-10 μM of HPF working solution. Note: Please adjust the concentration of HPF working solution according to the actual situation. Cell staining 2.1 Cell preparation. For suspension cells: Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. For adherent cells: Discard the cell culture medium, and add trypsin to dissociate cells to make a single-cell suspension. Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. 2.2 Add 1 mL of HPF working solution, and then incubate at room temperature for 30 minutes. 2.3 Centrifuge at 400 g at 4°C for 3-4 minutes and then discard the supernatant. 2.4 Wash twice with PBS, 5 minutes each time. 2.5 Resuspend cells with serum-free cell culture medium or PBS, and then detect by fluorescence microscope or flow cytometer. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The Hydroxyphenyl Fluorescein (HPF) probe (15 μl, 25 μM) is given intratesticularly in anaesthetized mice 20 min before IR (ionizing radiation). The accumulation of OH by the fluorescence signal emitted by the oxidized form of HPF is assessed[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Ming-De Li, et al. Dynamics of Oxygen-Independent Photocleavage of Blebbistatin as a One-Photon Blue or Two-Photon Near-Infrared Light-Gated Hydroxyl Radical Photocage. J Am Chem Soc. 2018 Nov 21;140(46):15957-15968.

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