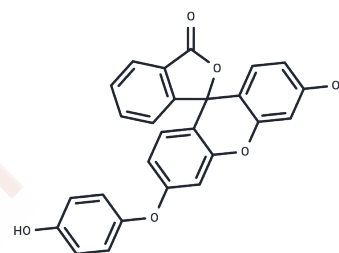


## Hydroxyphenyl Fluorescein

## Chemical Properties

CAS No. :	359010-69-8
Formula:	C <sub>26</sub> H <sub>16</sub> O <sub>6</sub>
Molecular Weight:	424.4
Storage:	Store at low temperature, Keep away from direct sunlight Store at -20°C <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Hydroxyphenyl Fluorescein (HPF) is a cell-permeable fluorescent dye for the detection of highly reactive oxygen species with little or no intrinsic fluorescence. Hydroxyphenyl Fluorescein can be used in fluorescent enzyme labeling and flow cytometry, and can be used to Neurodegeneration and aging. Fluorescence wavelength: Ex/Em = 490/515 nm.
Targets(IC50)	Others, Reactive Oxygen Species
Cell Research	<p>Operation steps:</p> <ol style="list-style-type: none"> <li>Preparation of stock solution: Prepare 10 mM HPF with DMSO; (it is recommended to store at -20 °C or -80 °C in the dark after aliquoting)</li> <li>Preparation of HPF working solution Dilute the stock solution and dissolve it in serum-free cell culture medium or PBS to prepare 1-10 μM HPF working solution; (select the appropriate working solution concentration according to experimental requirements and prepare it for immediate use)</li> <li>Cell staining <ol style="list-style-type: none"> <li>Suspended cells (6-well plate) <ol style="list-style-type: none"> <li>Centrifuge at 1000 g for 3-5 minutes at 4°C, and then discard the supernatant. Wash twice with PBS for 5 minutes each. The cell density is 1×10<sup>6</sup>/mL;</li> <li>Add 1 mL of working solution and incubate at room temperature for 15 minutes;</li> <li>Centrifuge at 4°C and 400 g for 3-4 minutes, and discard the supernatant;</li> <li>Wash twice with PBS, 5 minutes each time;</li> <li>Resuspend cells with serum-free cell culture medium or PBS. Observe with fluorescence microscope or flow cytometer.</li> </ol> </li> <li>Adherent cells <ol style="list-style-type: none"> <li>Culture adherent cells on sterile coverslips;</li> <li>Remove coverslips from culture medium and aspirate excess culture medium;</li> <li>Add 100 μL working solution, shake gently to completely cover cells, and incubate at room temperature for 15 minutes;</li> <li>Wash twice with culture medium, 5 minutes each time. Observe with fluorescence microscope or flow cytometer.</li> </ol> </li> </ol> </li> </ol> <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

## Solubility Information

Solubility	DMSO: 10 mg/mL (23.56 mM),Sonication is recommended. DMF: 8 mg/mL (18.85 mM),Sonication is recommended. Ethanol: 8 mg/mL (18.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3563 mL	11.7813 mL	23.5627 mL
5 mM	0.4713 mL	2.3563 mL	4.7125 mL
10 mM	0.2356 mL	1.1781 mL	2.3563 mL
50 mM	0.0471 mL	0.2356 mL	0.4713 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

- Li MD, 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.
- Garcia-Diaz M, Huang YY, Hamblin MR. Use of fluorescent probes for ROS to tease apart Type I and Type II photochemical pathways in photodynamic therapy. *Methods.* 2016 Oct 15;109:158-166.
- Wang HR, Chen PH, Tang JY, Yen CY, Su YC, Huang MY, Chang HW. Manoalide Shows Mutual Interaction between Cellular and Mitochondrial Reactive Species with Apoptosis in Oral Cancer Cells. *Oxid Med Cell Longev.* 2021 Mar 2; 2021:6667355.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481