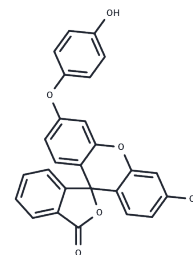


HPF

Chemical Properties

CAS No. :	359010-69-8
Formula:	C ₂₆ H ₁₆ O ₆
Molecular Weight:	424.408
Appearance:	no data available
Storage:	keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	The biology of highly reactive oxygen radical species is of great interest in many biomedical research disciplines, including neurodegeneration, aging, cancer, and infectious diseases.[1] There are a number of fluorescent reagents, such as 2,7-dichlorodihydrofluorescein (DCDHF), that can be used to detect free radicals, but they have significant limitations due to their facile oxidation by light and numerous non-radical oxidants such as hydrogen peroxide (H ₂ O ₂). [2] HPF is a cell-permeable aromatic amino-fluorescein derivative that has little intrinsic fluorescence. [3] It undergoes oxidation only by highly reactive oxygen species (hROS) such as the hydroxyl radical, peroxyxynitrite, and hROS generated from a peroxidase/H ₂ O ₂ system. It is inert to hypochlorite ion, nitric oxide, hydrogen peroxide (H ₂ O ₂), superoxide, and other oxidants. Upon oxidation, HPF is converted to the highly fluorescent molecule fluorescein, with excitation/emission maxima of 490/515 nm, respectively, allowing the simple direct detection of highly reactive biological radicals.
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Solubility Information

Solubility	DMSO: 20 mg/mL DMF: 20 mg/mL Ethanol: 20 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3562 mL	11.7811 mL	23.5621 mL
5 mM	0.4712 mL	2.3562 mL	4.7124 mL
10 mM	0.2356 mL	1.1781 mL	2.3562 mL
50 mM	0.0471 mL	0.2356 mL	0.4712 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.

Reference

Matés, J.M., Pérez-Gómez, C., and Nuñez de Castro, I. Antioxidant enzymes and human diseases. Clinical Biochemistry 32(8), 595-603 (1999).
Hempel, S.L., Buettner, G.R., O'Malley, Y.Q., et al. Dihydrofluorescein