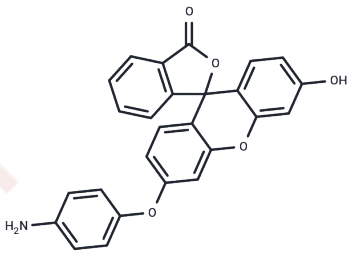
Data Sheet (Cat.No.T38099)

TargetMol

APF

Chemical Properties



CAS No. :	359010-70-1
Formula:	C26H17NO5
Molecular Weight:	423.42
Storage:	Keep away from direct sunlight Store at -20°C Actual storage temperature shall be subject to the COA.

Biological Description

Description	APF is an aromatic amino-fluorescein derivative that serves as a highly specific fluorescent probe for detecting highly reactive radicals, exhibiting low intrinsic fluorescence but converting into strongly fluorescent fluorescein upon oxidation by hydroxyl radicals, hypochlorite ions, and selected peroxidase intermediates. APF remain unreactive to nitric oxide and hydrogen peroxide, while with fluorescein displays excitation and emission maxima of 490 nm and 515 nm, respectively, enabling sensitive visualization of oxidative stress in biological systems.
Targets(IC50)	Others
In vitro	In cellular assays for detecting Reactive Oxygen Species (ROS), APF was utilized at a working concentration of 1-10 μM. The probe effectively stained both suspension and adherent cells when incubated at 37°C for 20-60 minutes in serum-free media or PBS. This staining allowed for subsequent detection via fluorescence microscopy or flow cytometry [1].

Solubility Information

Solubility	Ethanol: 10 mg/mL (23.62 mM),Sonication is recommended. DMF: 20 mg/mL (47.23 mM),Sonication is recommended. Ethanol:PBS (pH 7.2)(1:3): 0.5 mg/mL (1.18 mM),Sonication is recommended. DMSO: 8 mg/mL (18.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3617 mL	11.8086 mL	23.6172 mL
5 mM	0.4723 mL	2.3617 mL	4.7234 mL
10 mM	0.2362 mL	1.1809 mL	2.3617 mL
50 mM	0.0472 mL	0.2362 mL	0.4723 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

Setsukinai K, et al. Development of novel fluorescence probes that can reliably detect reactive oxygen species and distinguish specific species. J Biol Chem. 2003;278(5):3170-3175.