

## Fluorescein-5-maleimide

### Chemical Properties

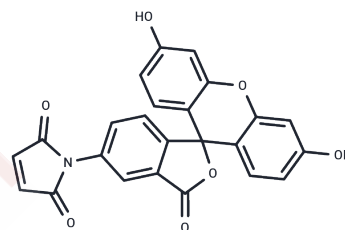
CAS No. : 75350-46-8

Formula: C<sub>24</sub>H<sub>13</sub>N<sub>2</sub>O<sub>7</sub>

Molecular Weight: 427.36

Storage: Keep away from direct sunlight, Store under nitrogen  
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



### Biological Description

Description	Fluorescein-5-maleimide (N-(5-Fluoresceinyl)maleimide) is a fluorescent thiol-reactive dye (excitation: 494 nm, emission: 519 nm).
Targets(IC50)	Others
Cell Research	<p>Instructions</p> <p>I. Solution preparation</p> <ol style="list-style-type: none"> <li>1. Stock solution: Prepare 1 mM Fluorescein-5-maleimide stock solution using deionized PBS (d-PBS).</li> <li>2. Working solution: Dilute the stock solution to an appropriate working concentration, usually 0.1-1 μM, according to experimental needs.</li> </ol> <p>II. Operation steps</p> <ol style="list-style-type: none"> <li>1. Isolate PBMC from venous blood using Ficoll-Paque density gradient centrifugation and wash with PBS.</li> <li>2. Label the washed PBMC with anti-human CD3 antibody (10 million cells per 100 μL suspension).</li> <li>3. Stain with 0.1 μM Fluorescein-5-maleimide and analyze by flow cytometry.</li> </ol> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. Fluorescein-5-maleimide is light-sensitive and should be stored and handled away from light.</li> <li>2. Storage conditions: -5°C to -30°C, away from light.</li> <li>3. Before use, make sure the solution is free of particles and avoid the solution from condensing into clumps due to moisture.</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	H <sub>2</sub> O: < 0.1 mg/mL (insoluble), DMSO: 131.25 mg/mL (307.12 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.3399 mL	11.6997 mL	23.3995 mL
5 mM	0.468 mL	2.3399 mL	4.6799 mL
10 mM	0.234 mL	1.170 mL	2.3399 mL
50 mM	0.0468 mL	0.234 mL	0.468 mL

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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

Wadley AJ, et al. Detecting intracellular thiol redox state in leukaemia and heterogeneous immune cell populations: An optimised protocol for digital flow cytometers. *MethodsX*. 2018 Nov 1;5:1473-1483.

Chung SF, et al. Fluorescently Modified NDM-1: A Versatile Drug Sensor for Rapid In Vitro  $\beta$ -Lactam Antibiotic and Inhibitor Screening. *ACS Omega*. 2024 Feb 13;9(8):9161-9169.

Catala A, et al. Targeted Intracellular Delivery of Trastuzumab Using Designer Phage Lambda Nanoparticles Alters Cellular Programs in Human Breast Cancer Cells. *ACS Nano*. 2021 Jul 27;15(7):11789-11805.

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