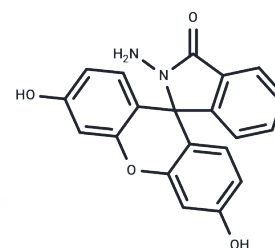


N-Aminofluorescein

Chemical Properties

CAS No. :	98907-26-7
Formula:	C ₂₀ H ₁₄ N ₂ O ₄
Molecular Weight:	346.34
Storage:	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	N-Aminofluorescein is a highly selective and sensitive fluorescent probe for Cu ²⁺ and can be used to detect Cu ²⁺ in biological systems ($\lambda_{ex}/\lambda_{em}=495/516$ nm).
Targets(IC50)	Others
In vitro	N-Aminofluorescein consists of a fluorescein molecule and a hydrazide group that recognizes and binds to Cu ²⁺ , thereby promoting hydrolysis of the amide. [1] N-Aminofluorescein (abbreviated as FG) is specific for Cu ²⁺ , and an absorption peak at 632 nm is observed in 70% HEPES buffer (pH 7.4) containing Cu ²⁺ . absorption peak and emission peak was observed at 515 nm. [2]
Cell Research	<p>Cu²⁺ Assay</p> <ol style="list-style-type: none"> 1. Prepare a 1.0 mM ethanol stock solution of helical fluorescein amidoxime. 2. Perform the fluorescence reaction in 0.01 M Tris-HCl buffer (pH 7.2) using 10 μM N-aminofluorescein. 3. Add an appropriate amount of sample solution to the solution so that the final Cu²⁺ concentration does not exceed 10 μM, and adjust the final volume to 10 mL with 0.01 M Tris-HCl buffer (pH 7.2). 4. After 2 hours of reaction, transfer 3 mL of the solution to a 1 cm quartz cuvette and measure the fluorescence intensity/spectrum at room temperature with an excitation wavelength of 495 nm and an emission wavelength of 516 nm, respectively, and an excitation and emission slit width of 5 nm. 5. At the same time, prepare a blank solution without Cu²⁺ and measure it under the same conditions for comparison. 6. Detection: <p>Use a fluorescence microscope, flow cytometer, or fluorescence spectrophotometer to detect the labeled samples.</p> <p>Set the instrument parameters according to the excitation and emission wavelengths of N-aminofluorescein (e.g., excitation wavelength is about 496 nm, emission wavelength is about 519 nm).</p> <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: 100 mg/mL (288.73 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	2.8873 mL	14.4367 mL	28.8734 mL
5 mM	0.5775 mL	2.8873 mL	5.7747 mL
10 mM	0.2887 mL	1.4437 mL	2.8873 mL
50 mM	0.0577 mL	0.2887 mL	0.5775 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

Chen X, Ma H. A selective fluorescence-on reaction of spiro form fluorescein hydrazide with Cu(II). *Anal Chim Acta*. 2006 Aug 11;575(2):217-22

Diwan, Uzra , et al. "A water compatible turn 'on' optical probe for Cu²⁺ based on a fluorescein-sugar conjugate." *Sensors & Actuators B Chemical* 196.jun.(2014):345-351.

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