



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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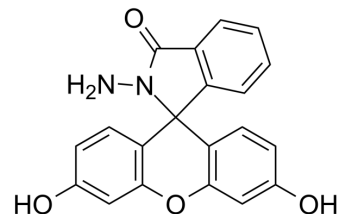
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## N-Aminofluorescein

Cat. No.:	HY-D1601
CAS No.:	98907-26-7
Molecular Formula:	C <sub>20</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub>
Molecular Weight:	346.34
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (360.92 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
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	

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

N-Aminofluorescein is a fluorescein hydrazide with spiro form, a highly selective and sensitive fluorescence probe for Cu<sup>2+</sup>. N-Aminofluorescein has no selective fluorescence response to other common metal ions, can be used for direct detection of Cu<sup>2+</sup> in biological systems with λ<sub>ex</sub>/λ<sub>em</sub>=495/516 nm<sup>[1][2]</sup>.

#### In Vitro

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).

N-Aminofluorescein consists of a fluorescein moiety and a hydrazide group to recognize and bind Cu<sup>2+</sup>, can promote the hydrolysis of amide<sup>[1]</sup>.

N-Aminofluorescein (FG) shows selectivity on Cu<sup>2+</sup> and shows the absorption and emission bands at 632 nm and 515 nm in 70% aqueous HEPES buffered solution (pH 7.4) containing Cu<sup>2+</sup><sup>[2]</sup>.

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).

General procedure for Cu<sup>2+</sup> determination<sup>[1]</sup>:

1. Prepare the 1.0 mM stock solution of spiro form fluorescein hydrazide in ethanol;
2. Conduct the fluorescence-on reaction in 0.01 M Tris-HCl buffer (pH 7.2), with 10 μM N-Aminofluorescein;
3. Add an appropriate volume of sample solution with a final Cu<sup>2+</sup> concentration of not more than 10 μM, and adjust the final volume 10 mL with 0.01 M Tris-HCl buffer (pH 7.2);

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4. After 2 h, transfer a 3-mL portion of the solution to a 1-cm quartz cell, and measure the fluorescence intensity/spectrum at room temperature with  $\lambda_{\text{ex/em}} = 495/516$  nm and both excitation and emission slit widths of 5 nm;?

5. In the meantime, prepare a blank solution containing no  $\text{Cu}^{2+}$  and measure with the same conditions for comparison.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

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- [1]. Chen X, et al. A selective fluorescence-on reaction of spiro form fluorescein hydrazide with Cu(II). *Anal Chim Acta*. 2006 Aug 11;575(2):217-22.
- [2]. Uzra Diwan, et al. A water compatible turn 'on' optical probe for  $\text{Cu}^{2+}$  based on a fluorescein-sugar conjugate. *Sensors and Actuators B: Chemical*. 2014;196:345-351.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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