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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

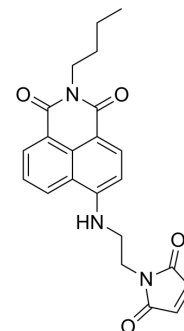
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Naph-EA-mal

Cat. No.:	HY-D1261
CAS No.:	210292-65-2
Molecular Formula:	C ₂₂ H ₂₁ N ₃ O ₄
Molecular Weight:	391.42
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (85.15 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5548 mL	12.7740 mL	25.5480 mL
	5 mM	0.5110 mL	2.5548 mL	5.1096 mL
	10 mM	0.2555 mL	1.2774 mL	2.5548 mL

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

BIOLOGICAL ACTIVITY

Description

Naph-EA-mal (Thiol-green 1) is a rapid detect and ultrafast turn-on thiol fluorescence probe for protein labeling and bioimaging. Naph-EA-mal (Thiol-green 1) can be used to detect thiols in living cells, label the protein thiols, quantify the concentration of total thiols in cell lysate, and determine the reversible protein thiols oxidation in fixed cells^[1]. Ex: 488 nM; Em: 540 nM.

In Vitro

Imaging thiols in living cells^[1]

Hep G2 cells incubated with Naph-EA-mal (Thiol-green 1) (1 μM; 5 mins), and strong green fluorescence can be observed. When cells are preincubated the cells to block the intracellular thiols with NEM (a thiol block reagent; 100 μM), a weaker fluorescence is observed in cells^[1].

Monitoring thiol-disulfide levels in fixed cells

Due to the majority of cellular thiols are present in the reduced form, Naph-EA-mal (Thiol-green 1) (10 μM) induces strong fluorescence in Hep G2 cells. After diamide treatment, fluorescent signal sharp dimed is observed^[1].

The Hep G2 cells, oxidized by diamide (200 μM; 30 min), are fixed by 70% EtOH and the remaining free thiols are blocked by NEM (100 μM). then The cells are further treated with TCEP (5 mM) followed by addition of the Naph-EA-mal (Thiol-green 1) (10 μM). The green fluorescent signal is detected again^[1]

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

CUSTOMER VALIDATION

- Antioxidants (Basel). 2022 Feb 13;11(2):377.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Jinyu Sun, et al. An ultrafast turn-on thiol probe for protein labeling and bioimaging. Analyst

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA