



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

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

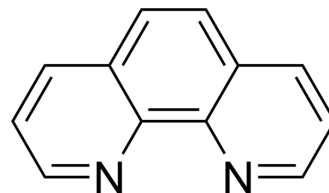
mail@szabo-scandic.com

www.szabo-scandic.com

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

o-Phenanthroline

Cat. No.:	HY-W004544
CAS No.:	66-71-7
Molecular Formula:	C ₁₂ H ₈ N ₂
Molecular Weight:	180.21
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (554.91 mM; Need ultrasonic)
Ethanol : 50 mg/mL (277.45 mM; Need ultrasonic)
H₂O : 2 mg/mL (11.10 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.5491 mL	27.7454 mL	55.4908 mL
	5 mM	1.1098 mL	5.5491 mL	11.0982 mL
	10 mM	0.5549 mL	2.7745 mL	5.5491 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (13.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (13.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (13.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

o-Phenanthroline (1,10-Phenanthroline), a metal chelator, prevents the induction of chromosomal aberrations in streptozotocin-treated cells. o-Phenanthroline (1,10-Phenanthroline) forms a red chelate with Fe²⁺ that absorbs maximally at 510 nm. o-Phenanthroline (1,10-Phenanthroline) is also a MMP inhibitor^{[1][2]}.

In Vitro

o-Phenanthroline (1,10-Phenanthroline, 1mM) inhibits autolysis of sea cucumber body wall^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2023 May 2;14(1):2523.
- Mol Cell. 2023 Nov 2:S1097-2765(23)00856-0.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Guan NanMu, et al. Synergistic inhibition between o-phenanthroline and chloride ion on cold rolled steel corrosion in phosphoric acid. Materials Chemistry and Physics Volume 86, Issue 1, 15 July 2004, Pages 59-68.
- [2]. Zi-Qiang Liu, et al. The role of matrix metalloprotease (MMP) to the autolysis of sea cucumber (*Stichopus japonicus*). J Sci Food Agric. 2019 Oct;99(13):5752-5759.
-

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