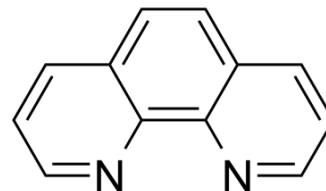


o-Phenanthroline

Cat. No.:	HY-W004544
CAS No.:	66-71-7
Molecular Formula:	C ₁₂ H ₈ N ₂
Molecular Weight:	180.21
Target:	Others
Pathway:	Others
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^[1].

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.

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

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