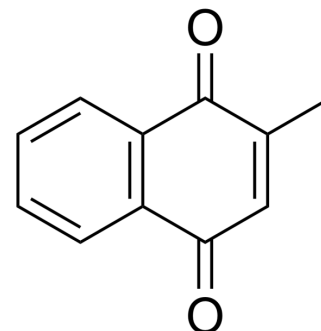


Menadione

Cat. No.:	HY-B0332
CAS No.:	58-27-5
Molecular Formula:	C ₁₁ H ₈ O ₂
Molecular Weight:	172.18
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (290.39 mM; Need ultrasonic)
H₂O : 0.1 mg/mL (0.58 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.8079 mL	29.0394 mL	58.0788 mL
	5 mM	1.1616 mL	5.8079 mL	11.6158 mL
	10 mM	0.5808 mL	2.9039 mL	5.8079 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: ≥ 2.08 mg/mL (12.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (12.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (12.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Menadione, a naphthoquinone, can be converted to active vitamin K2 in vivo. Target: Others Menadione (Vitamin K3) is a synthetic analogue of 1,4-naphthoquinone with a methyl group in the 2-position. Menadione is used as a phosphatase inhibitor and an inhibitor of mitochondrial DNA polymerase γ (pol γ). Menadione can be used as an oxidative injury (free radical generator) inducing agent [1].

IC₅₀ & Target

Human Endogenous Metabolite	Human Endogenous Metabolite
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CUSTOMER VALIDATION

- Cell Stem Cell. 2021 Sep 14;S1934-5909(21)00343-X.
- Nat Commun. 2021 Aug 16;12(1):4961.
- Autophagy. 2020 Sep;16(9):1683-1696.
- Transl Stroke Res. 2021 May 8.
- Int J Biol Macromol. 2021 Apr 24.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. <http://en.wikipedia.org/wiki/Menadione>

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