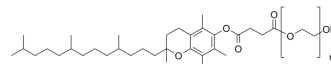


Tocofersolan

Cat. No.:	HY-B0717		
CAS No.:	9002-96-4		
Molecular Formula:	C ₃₅ H ₅₈ O ₆		
Molecular Weight:	1513		
Target:	Others		
Pathway:	Others		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (66.09 mM; Need ultrasonic)
 DMSO : 100 mg/mL (66.09 mM; Need ultrasonic)
 Ethanol : 50 mg/mL (33.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	0.6609 mL	3.3047 mL	6.6094 mL
	5 mM	0.1322 mL	0.6609 mL	1.3219 mL
	10 mM	0.0661 mL	0.3305 mL	0.6609 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (66.09 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (1.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (1.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (1.65 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline
Solubility: ≥ 2.5 mg/mL (1.65 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (1.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Tocofersolan is synthetic polyethylene glycol derivative of α -tocopherol. Tocofersolan is an orally active and water-soluble analog of vitamin E. Tocofersolan can reduce neurobehavioral deficits in zebrafish embryos exposed to moderate and high concentrations of BaP during early development. Tocofersolan shows antioxidant activity. Tocofersolan can be used to provide an orally bioavailable source of vitamin E ^{[1][2][3]} .
In Vivo	Tocofersolan (0-3 μ M) increases locomotor activity, and causes a significant attenuation of the BaP-induced hypoactivity at 1 μ M in zebrafish embryos exposed to BaP ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cancers (Basel). 2023 Jul 24;15(14):3741.
- Reprod Sci. 2021 Apr 14.
- Nano Biomed Eng. 2021, 13(2): 127-136.

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REFERENCES

- [1]. Tan S, et al. Recent developments in d- α -tocopheryl polyethylene glycol-succinate-based nanomedicine for cancer therapy [published correction appears in Drug Deliv. 2017 Nov;24(1):1930]. Drug Deliv. 2017;24(1):1831-1842.
- [2]. Holloway Z, et al. The use of tocofersolan as a rescue agent in larval zebrafish exposed to benzo[a]pyrene in early development. Neurotoxicology. 2021 Sep;86:78-84.
- [3]. Rehim WM, et al. Antioxidant capacity in Fasciola hepatica patients before and after treatment with triclabendazole alone or in combination with ascorbic acid (vitamin C) and tocofersolan (vitamin E). Arzneimittelforschung. 2003;53(3):214-20.

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

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