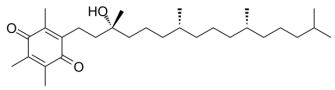
D-α-Tocopherylquinone

Cat. No.:	HY-N2853
CAS No.:	7559-04-8
Molecular Formula:	$C_{29}H_{50}O_3$
Molecular Weight:	446.71
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

DMSO : 50 mg/mL (111.93 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2386 mL	11.1929 mL	22.3859 mL
	5 mM	0.4477 mL	2.2386 mL	4.4772 mL
	10 mM	0.2239 mL	1.1193 mL	2.2386 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.60 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.60 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.60 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

D-α-Tocopherylquinone (α-Tocopherylquinone) is a quinone, can be isolated from Phaeodactylum tricornutum. D-α-Tocopherylquinone is a oxidation product of α-Tocopherol (vitamin E). D-α-Tocopherylquinone can act as an anticoagulant and as an antioxidant[1][2].

REFERENCES

[1]. K Shimazaki, et al. Studies on electron transfer systems in the marine diatom Phaeodactylum tricornutum. II. Identification and determination of quinones, cytochromes, and flavins. J Biochem. 1978 Jun;83(6):1639-42.

[2]. M K Horwitt. Vitamin E: a reexamination. Am J Clin Nutr. 1976 May;29(5):569-78.

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