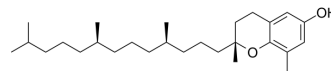


Delta-Tocopherol

Cat. No.:	HY-113026	
CAS No.:	119-13-1	
Molecular Formula:	C ₂₇ H ₄₆ O ₂	
Molecular Weight:	402.65	
Target:	Endogenous Metabolite; Apoptosis	
Pathway:	Metabolic Enzyme/Protease; Apoptosis	
Storage:	Pure form	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (124.18 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	2.4835 mL	12.4177 mL	24.8355 mL
			5 mM	0.4967 mL	2.4835 mL	4.9671 mL
			10 mM	0.2484 mL	1.2418 mL	2.4835 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: ≥ 2.08 mg/mL (5.17 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.17 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.17 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Delta-Tocopherol is an isomer of Vitamin E ^[1] .
IC ₅₀ & Target	Human Endogenous Metabolite
In Vitro	Delta-Tocopherol (0-100 μM, 96 h) inhibits cell growth and induces apoptosis in human prostate cancer LNCaP cells ^[2] . Delta-Tocopherol (0-100 μM, 24 h) inhibits DHT (10 nM) -induced androgen receptor activation and its downstream target PSA in CWR-22Rv1/AR cells ^[2] . Delta-Tocopherol (10 μM, 1-4 days) decreases estrogen induced cyclin D1 and c-Myc levels in MCF-7 cells and MDA-MB-231

cells^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Delta-Tocopherol (0.2% supplemented in diet, 28 weeks) inhibits the development of prostate adenocarcinoma in Pten^{-/-} mice^[1].

Delta-Tocopherol (0.2% supplemented in diet, 5 weeks) inhibits tumor growth in MCF-7 xenograft model^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	MCF-7 orthotopical xenograft model ^[3]
Dosage:	0.2% supplemented in diet
Administration:	5 weeks
Result:	Inhibited tumor growth by 58%.

REFERENCES

- [1]. Wang H, et al. δ -Tocopherol inhibits the development of prostate adenocarcinoma in prostate specific Pten^{-/-} mice. *Carcinogenesis*. 2018 Feb 9;39(2):158-169.
- [2]. Huang H, et al. Potent inhibitory effect of δ -tocopherol on prostate cancer cells cultured in vitro and grown as xenograft tumors in vivo. *J Agric Food Chem*. 2014 Nov 5;62(44):10752-8.
- [3]. Bak MJ, et al. Inhibitory Effects of γ - and δ -Tocopherols on Estrogen-Stimulated Breast Cancer In Vitro and In Vivo. *Cancer Prev Res (Phila)*. 2017 Mar;10(3):188-197.

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

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