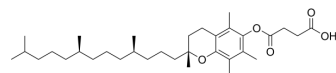


D- α -Tocopherol Succinate

Cat. No.:	HY-131553	
CAS No.:	4345-03-3	
Molecular Formula:	C ₃₃ H ₅₄ O ₅	
Molecular Weight:	530.78	
Target:	Apoptosis	
Pathway:	Apoptosis	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (471.00 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.8840 mL	9.4201 mL	18.8402 mL
	5 mM	0.3768 mL	1.8840 mL	3.7680 mL
	10 mM	0.1884 mL	0.9420 mL	1.8840 mL

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

BIOLOGICAL ACTIVITY

Description

D- α -Tocopherol Succinate (Vitamin E succinate) is an antioxidant tocopherol and a salt form of vitamin E. D- α -Tocopherol Succinate inhibits [Cisplatin](#) (HY-17394)-induced cytotoxicity. D- α -Tocopherol Succinate can be used for the research of cancer^{[1][2]}.

In Vitro

D- α -Tocopherol Succinate (1-20 μ M; 24 hours) shows cytotoxicity to HEI-OC1 cells^[1].
 D- α -Tocopherol Succinate (10 μ M; 48 hours) protects HEI-OC1 cells against cisplatin-induced ototoxicity and inhibits caspase-3 activity^[1].
 D- α -Tocopherol Succinate (0-50 μ M; 18 hours) shows cytotoxicity to TC-1 tumor cells^[2].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Cell Cytotoxicity Assay^[1]

Cell Line:	HEI-OC1 cell line
Concentration:	1-20 μ M
Incubation Time:	24 hours

	<p>Result: Significantly induced cytotoxicity at a concentration of 20 μM and showed a higher cytotoxicity potency compared with 10 μM.</p>
	<p>Cell Viability Assay^[1]</p>
	<p>Cell Line: HEI-OC1 cell line</p>
	<p>Concentration: 10 μM</p>
	<p>Incubation Time: 48 hours</p>
	<p>Result: Increased cisplatin-induced cell population. Inhibited cisplatin-induced necrotic, ROS production and late apoptosis. Decreased cleaved PARP and inhibited the expression of caspase-3 which related to cisplatin-induced apoptosis.</p>
	<p>Cell Cytotoxicity Assay^[2]</p>
	<p>Cell Line: TC-1 tumor cells</p>
	<p>Concentration: 0, 25 and 50 μM</p>
	<p>Incubation Time: 18 hours</p>
	<p>Result: Dose-dependently showed cytotoxic and induced a higher percentage of necrotic TC-1 cells as opposed to apoptotic cells.</p>
In Vivo	<p>D-α-Tocopherol Succinate (1-2 mg/kg; i.p. three times at 2 day intervals from TC-1 tumor cells injection for 10 days to 14 days) shows antitumor effects to mice with TC-1 tumor^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
	<p>Animal Model: Six- to eight-week-old female C57BL/6 mice with TC-1 tumor cells^[2]</p>
	<p>Dosage: 1 and 2 mg/kg</p>
	<p>Administration: Intraperitoneal injection; 1 and 2 mg/kg three times at 2 day intervals; from TC-1 tumor cells injection for 10 days to 14 days</p>
	<p>Result: Dressed the tumor volume, especially with a dose of 2 mg/kg.</p>

REFERENCES

[1]. Kim SK, et al. The effects of the antioxidant α -tocopherol succinate on cisplatin-induced ototoxicity in HEI-OC1 auditory cells. *Int J Pediatr Otorhinolaryngol*. 2016 Jul;86:9-14.

[2]. Kang TH, et al. Treatment of tumors with vitamin E suppresses myeloid derived suppressor cells and enhances CD8+ T cell-mediated antitumor effects. *PLoS One*. 2014 Jul 29;9(7):e103562.

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

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