Product Data Sheet

Product Name: D-α-Tocopherol Succinate
Cat. No.: GC66824

Chemical Properties

Cas. No.	4345-03-3		
Formula	$C_{33}H_{54}O_5$	M.Wt	530.78
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	D-α-Tocopherol Succinate		

Background

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

D-α-Tocopherol Succinate (1-20 μM; 24 hours) shows cytotoxicity to HEI-OC1 cells[1].
D-α-Tocopherol Succinate (10 μM; 48 hours) protects HEI-OC1 cells against cisplatin-induced ototoxicity and inhibits caspase-3 activity[1].
D-α-Tocopherol Succinate (0-50 μM; 18 hours) shows cytotoxicity to TC-1 tumor cells[2].

Cell Cytotoxicity Assay[1]

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

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Result:	Significantly induced cytotoxicity at a concentration of 20 μM and showed a higher cytotoxicity potency compared with 10 μM.

Cell Viability Assay[1]

Cell Line:	HEI-OC1 cell line
Concentration:	10 μM
Incubation Time:	48 hours
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.

Cell Cytotoxicity Assay[2]

Cell Line:	TC-1 tumor cells
Concentration:	0, 25 and 50 μM
Incubation Time:	18 hours
Result:	Dose-dependently showed cytotoxic and induced a higher percentage of necrotic TC-1 cells as opposed to apoptotic cells.

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].

Animal Model:	Six- to eight-week-old female C57BL/6 mice with TC-1 tumor cells[2]
Dosage:	1 and 2 mg/kg

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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
Result:	Dreased the tumor volume, especially with a dose of 2 mg/kg.

[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.

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