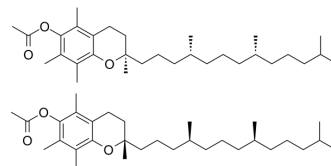


DL- α -Tocopherol acetate

Cat. No.:	HY-B1278A		
CAS No.:	52225-20-4		
Molecular Formula:	C ₃₁ H ₅₂ O ₃		
Molecular Weight:	472.74		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
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 (211.53 mM; Need ultrasonic)
 DMSO : ≥ 100 mg/mL (211.53 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.1153 mL	10.5766 mL	21.1533 mL
	5 mM		0.4231 mL	2.1153 mL	4.2307 mL
	10 mM		0.2115 mL	1.0577 mL	2.1153 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline)
Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.29 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DL- α -Tocopherol acetate is a vitamin E derivative which is often included in the formulations of enteral nutrition.

In Vivo

DL- α -Tocopherol acetate is a vitamin E derivative which is often included in the formulations of enteral nutrition^[1]. DL- α -Tocopherol acetate (α -TA) increases tissue cholesterol levels in liver, brain, testis and heart. The brain cholesterol level is much higher than those in other tissues when adjusted by protein level. DL- α -Tocopherol acetate also increases the level of

lipid peroxidation in liver, brain, and testis of mice^[2].

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

PROTOCOL

Animal Administration ^[2]

Male mice (specific-pathogen-free, 4 weeks of age) are divided into three groups. They are fed for 4 weeks with the CE2 diet containing one of three different antioxidants, 0.002 wt% DL- α -Tocopherol acetate (α -TA) (n=6), 0.02 wt% α -T (n=6) or 0.02 wt% α -TP(CD3) (n=7), per kilogram of diet. The mice are maintained under standardized conditions of light (7:00 AM to 7:00 PM), temperature (22°C), and humidity (70%). After 4 weeks, they are sacrificed under anesthesia with diethyl ether. The extracted brain, liver, heart, kidney, testis, and lung are homogenized in ice-cold 10 mM phosphate-buffered saline. Blood samples are collected in heparin-containing tubes. The samples are placed on ice immediately after collection. Plasma is obtained by centrifugation at 830 g for 5 min at 4°C and immediately subjected to analysis^[2].

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

CUSTOMER VALIDATION

- Int J Mol Sci. 2019 Apr 2;20(7). pii: E1629.
- FASEB J. 2023 Apr;37(4):e22840.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Nagy K, et al. Double-balloon jejunal perfusion to compare absorption of vitamin E and vitamin E acetate in healthy volunteers under maldigestion conditions. Eur J Clin Nutr. 2013 Feb;67(2):202-6.

[2]. Nishio K, et al. α -Tocopheryl phosphate: uptake, hydrolysis, and antioxidant action in cultured cells and mouse. Free Radic Biol Med. 2011 Jun 15;50(12):1794-800.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA