Product Data Sheet

Product Name: (±)-α-Tocopherol nicotinate
Cat. No.: GC67191

Chemical Properties

Cas. No.	51898-34-1		
Formula	$C_{35}H_{53}NO_3$	M.Wt	535.8
Solubility	DMSO : 10 mg/mL (18.66 mM; ultrasonic and warming and heat to 60°C)	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	(±)-α-Tocopherol nicotinate		

Background

(±)-α-Tocopherol nicotinate, vitamin E - nicotinate, is an orally active fat-soluble antioxidant that prevents lipid peroxidation in cell membranes. (±)-α-Tocopherol nicotinate is hydrolysed in the blood to α -tocopherol and niacin and may be used in studies of related vascular diseases[1][2].

(±)-α-Tocopherol nicotinate can help slow the progression of microangiopathy in type 2 diabetics by reducing lipid peroxidation stress in the red blood cell membrane, improving blood rheology and red blood cell deformability[1].
(±)-α-Tocopherol nicotinate (Vitamin E) (2 μg/mL, 24 h) increases the proportion of CD4+CD8- T cells in thymocytes by pretreating the thymic epithelial cell line IT45-R1 and then incubating it with immature T cells[2].

(±)-α-Tocopherol nicotinate (Vitamin E) (in animal feedings, 50 mg/kg or 585 mg/kg, 7 weeks) significantly increases the proportion of CD4+CD8- T cells and the expression of ICAM-1 in thymic epithelial cells (TECs) isolated of male Fisher rats at high dose concentrations of 585 mg/kg compared to low dose treatment of 50 mg/kg[2].

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[1]. T W Chung, et al. Reducing lipid peroxidation stress of erythrocyte membrane by alpha-tocopherol nicotinate plays an important role in improving blood rheological properties in type 2 diabetic patients with retinopathy. Diabet Med. 1998 May;15(5):380-5.
[2]. Satoru Moriguchi, et al.Vitamin E enhances T cell differentiation through increased epithelial cell function in rat thymus,Nutrition Research,Volume 17, Issue 5,1997,Pages 873-883.

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