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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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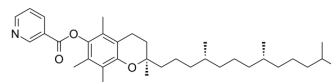
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(±)-α-Tocopherol nicotinate

Cat. No.:	HY-B0757A		
CAS No.:	51898-34-1		
Molecular Formula:	C ₃₅ H ₅₃ NO ₃		
Molecular Weight:	535.8		
Target:	Reactive Oxygen Species; Endogenous Metabolite		
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (18.66 mM; ultrasonic and warming and heat to 60°C)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		1.8664 mL	9.3318 mL	18.6637 mL
		5 mM		0.3733 mL	1.8664 mL	3.7327 mL
10 mM			0.1866 mL	0.9332 mL	1.8664 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (1.87 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1 mg/mL (1.87 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (1.87 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	(±)-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]} .
In Vitro	(±)-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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	(±)- 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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[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.

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

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