



# LKT Laboratories, Inc.

## Vitamin E, Natural

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### Product Information

Product ID V3276

CAS No. 59-02-9

Chemical Name D- $\alpha$ -tocopherol

Synonym

Formula  $C_{29}H_{50}O_2$

Formula Wt.

Melting Point 2-4°C

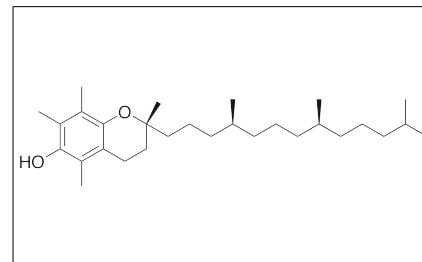
Purity  $\geq 97\%$

Solubility

Store Temp 4°C

Ship Temp Ambient

**Description** Vitamin E in its natural form is also known as D- $\alpha$ -tocopherol; it exhibits antioxidative, anti-inflammatory, anti-atherosclerotic, anti-hyperlipidemic, and anti-diabetic activities. In keratinocytes, vitamin E decreased UVA-induced upregulation of IL-8 and AP-1 binding and decreased activity of NADPH oxidase and formation of malondialdehyde. When administered clinically, vitamin E decreases ROS, lipid oxidation, secretion of IL-1 $\beta$ , and endothelial cell-to-monocyte adhesion. Vitamin E is also protective against retinal edema in animal models of ischemia/reperfusion. Additionally, vitamin E inhibits intracellular adhesion molecule 1 (ICAM-1)-induced activation of PKC in endothelial cells. In vivo, this compound decreases serum triglycerides, VLDL, PPAR $\gamma$  and malondialdehyde levels and increases PPAR $\alpha$  levels, improving insulin resistance. Vitamin E also inhibits PKC-DAG signaling and increases glomerular filtration rate (GFR) and decreases albuminuria, showing nephroprotective benefit in animal models of diabetic nephropathy.



### Pricing and Availability

**Bulk quantities available upon request**

| Product ID | Size  | List Price |
|------------|-------|------------|
| V3276      | 10 g  | \$54.60    |
| V3276      | 100 g | \$123.80   |
| V3276      | 250 g | \$257.80   |

**References** Kim do Y, Kim J, Ham HJ, et al. Effects of d- $\alpha$ -tocopherol supplements on lipid metabolism in a high-fat diet-fed animal model. *Nutr Res Pract*. 2013 Dec;7(6):481-7. PMID: 24353834.

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Mirbagheri SA, Nezami BG, Assa S, et al. Rectal administration of d-alpha tocopherol for active ulcerative colitis: a preliminary report. *World J Gastroenterol*. 2008 Oct 21;14(39):5990-5. PMID: 18932276.

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Aydemir O, Celebi S, Yilmaz T, et al. Protective effects of vitamin E forms (alpha-tocopherol, gamma-tocopherol and d-alpha-tocopherol polyethylene glycol 1000 succinate) on retinal edema during ischemia-reperfusion injury in the guinea pig retina. *Ophthalmol*. 2004 Oct-Dec;25(5-6):283-9. PMID: 16532291.

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Devaraj S, Li D, Jialal I. The effects of alpha tocopherol supplementation on monocyte function. Decreased lipid oxidation,

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.