



LKT Laboratories, Inc.

δ -Tocotrienol

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Product Information

Product ID T5611

CAS No. 25612-59-3

Chemical Name

Synonym delta-Tocotrienol

Formula $C_{27}H_{40}O_2$

Formula Wt. 396.61

Melting Point

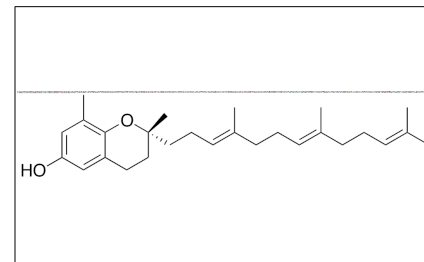
Purity $\geq 98\%$

Solubility Soluble in ethanol, hexanes,
DMSO, DMF

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description Tocotrienols contain an arene ring, a chromanol ring, and an isoprenoid tail; all tocotrienol compounds contain a methyl group on C8 of the arene ring. δ -Tocotrienol contains only the methyl group at C8; all other available sites are substituted with hydrogen atoms. Tocotrienols are members of the vitamin E family, typically found in vegetable oils, nuts, and grains. Tocotrienols exhibit strong antioxidative activity as well as anti-angiogenic, anticancer, and anti-hyperlipidemic qualities. Of all of the tocotrienols, δ -Tocotrienol displays the strongest anti-angiogenic and anticancer activities. Tocopherols, common substituents of over-the-counter vitamin E supplements, interfere with tocotrienol activity and show weaker antioxidative effects. Tocotrienols exhibit significant radical recycling abilities in cellular models of lipid peroxidation and oxidative damage and suppress HMG-CoA reductase activity. In vitro, these compounds induce apoptosis through inhibition of I δ 1, EGFR, and NF- κ B; they also inhibit vessel formation and proliferation in aortic endothelial cells.



Bulk quantities available upon request

Product ID	Size
T5611	1 mg
T5611	5 mg
T5611	10 mg

References Yap WN, Chang PN, Han HY, et al. Gamma-tocotrienol suppresses prostate cancer cell proliferation and invasion through multiple-signalling pathways. *Br J Cancer*. 2008 Dec 2;99(11):1832-41. PMID: 19002171.

Sen CK, Khanna S, Roy S. Tocotrienols: Vitamin E beyond tocopherols. *Life Sci*. 2006 Mar 27;78(18):2088-98. PMID: 16458936.

Inokuchi H, Hirokane H, Tsuzuki T, et al. Anti-angiogenic activity of tocotrienol. *Biosci Biotechnol Biochem*. 2003 Jul;67(7):1623-7. PMID: 12913317.

Parker RA, Pearce BC, Clark RW, et al. Tocotrienols regulate cholesterol production in mammalian cells by post-transcriptional suppression of 3-hydroxy-3-methylglutaryl-coenzyme A reductase. *J Biol Chem*. 1993 May 25;268(15):11230-8. PMID: 8388388.

Serbinova E, Kagan V, Han D, et al. Free radical recycling and intramembrane mobility in the antioxidant properties of alpha-tocopherol and alpha-tocotrienol. *Free Radic Biol Med*. 1991;10(5):263-75. PMID: 1649783.

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