



LKT Laboratories, Inc.

α -Tocotrienol

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Product Information

Product ID T5608

CAS No. 58864-81-6

Chemical Name

Synonym α -tocotrienol

Formula $C_{29}H_{44}O_2$

Formula Wt. 424.66

Melting Point

Purity $\geq 98\%$

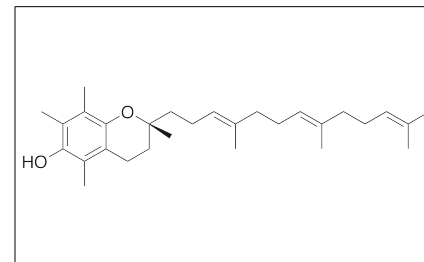
Solubility Soluble in ethanol, hexanes,
DMSO, DMF

Store Temp -20°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.

α -Tocotrienol contains two additional methyl groups arranged around the arene ring, positioned para and ortho to C8. Tocotrienols are members of the vitamin E family, typically found in vegetable oils, nuts, and grains. All tocotrienols exhibit strong antioxidative, anti-angiogenic, anticancer, and anti-hyperlipidemic qualities, although α -Tocotrienol displays the strongest antioxidative capacity. Tocopherols, common constituents 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 κ B, EGFR, and NF- κ B; they also inhibit vessel formation and proliferation in aortic endothelial cells.



Bulk quantities available upon request

Product ID	Size
T5608	1 mg
T5608	5 mg
T5608	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.