LKT Laboratories, Inc.

Kahweol Eicosanate

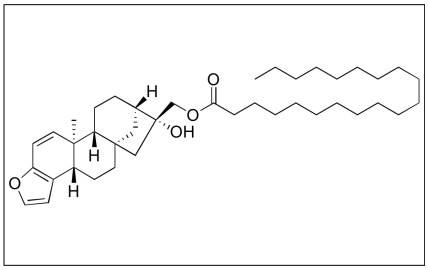
Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID K0034
CAS No. 108214-32-0
Chemical Name

Synonym

Formula $C_{40}H_{64}O_4$
Formula Wt. 608.93
Melting Point
Purity ≥98%
Solubility



Bulk quanitites available upon request

Product ID	Size
K0034	10 mg
K0034	25 mg
K0034	100 mg

Store Temp -20˚C
Ship Temp Blue Ice

Description Kahweol is a diterpene found in coffee beans that exhibits neuromodulatory, anti-osteoporotic, anti-resorptive, anti-inflammatory, antioxidative, anti-angiogenic, anticancer, and chemopreventive activities. Like other coffee compounds, kahweol may also display hyperlipidemic properties. In vitro, kahweol inhibits RANKL-induced osteoclast generation and bone resorbing activity. In other cellular and animal models, kahweol inhibits cell proliferation, migration, invasion, and tube formation, and suppresses expression of MCP-1 and COX-2. Additionally, kahweol activates Nrf2. In oral squamous cell carcinoma cells, this compound induces G1 phase cell cycle arrest and apoptosis and downregulates expression of Sp1. In vitro, kahweol inhibits aflatoxin B1-induced DNA adduct formation and increases levels of glutathione-S-transferase. This compound also inhibits H2O2-induced DNA damage and oxidative stress and decreases superoxide anion formation in vitro.

References

Chae JI, Jeon YJ, Shim JH. Anti-Proliferative Properties of Kahweol in Oral Squamous Cancer Through the Regulation Specificity Protein 1. Phytother Res. 2014 Sep 8. [Epub ahead of print]. PMID: 25196544.

Wu KC, McDonald PR, Liu J, et al. Screening of natural compounds as activators of the keap1-nrf2 pathway. Planta Med. 2014 Jan;80(1):97-104. PMID: 24310212.

Fumimoto R, Sakai E, Yamaguchi Y, et al. The coffee diterpene kahweol prevents osteoclastogenesis via impairment of NFATc1 expression and blocking of Erk phosphorylation. J Pharmacol Sci. 2012;118(4):479-86. PMID: 22447306.

Cárdenas C, Quesada AR, Medina MA. Anti-angiogenic and anti-inflammatory properties of kahweol, a coffee diterpene. PLoS One. 2011;6(8):e23407. Erratum in: PLoS One. 2011;6(11). PMID: 21858104.

Lee KJ, Jeong HG. Protective effects of kahweol and cafestol against hydrogen peroxide-induced oxidative stress and DNA damage. Toxicol Lett. 2007 Sep 10;173(2):80-7. PMID: 17689207.

Cavin C, Mace K, Offord EA, et al. Protective effects of coffee diterpenes against aflatoxin B1-induced genotoxicity: mechanisms in rat and human cells. Food Chem Toxicol. 2001 Jun;39(6):549-56. PMID: 11346484.