



Product Information

Product ID K0036

CAS No. 108214-29-5

Chemical Name

Synonym

Formula $C_{38}H_{56}O_4$

Formula Wt. 576.85

Melting Point

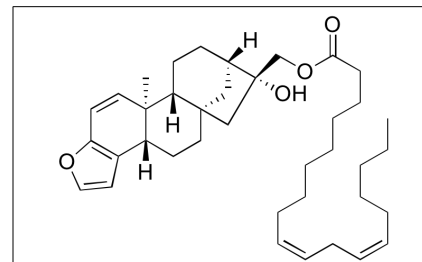
Purity $\geq 98\%$

Solubility

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.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
K0036	10 mg	\$291.50
K0036	25 mg	\$480.70
K0036	100 mg	\$1226.60

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.

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