



LKT Laboratories, Inc.

D,L-1'-Acetoxychavicol Acetate

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Product Information

Product ID A0817

CAS No. 52946-22-2

Chemical Name Benzenemethanol, 4-(acetyloxy)- α -ethenyl-, acetate

Synonym 4-(Acetyloxy)- α -ethenylbenzenemethanol, CCRIS 7708

Formula $C_{13}H_{14}O_4$

Formula Wt. 234.25

Melting Point

Purity $\geq 98\%$

Solubility Soluble in DMSO (20 mg/mL), ethanol (20 mg/mL), DMF (14 mg/mL).

Store Temp Ambient

Ship Temp Ambient

Description 1'-Acetoxychavicol acetate (ACA) was originally found in *Alpinia galanga*; it exhibits anti-obesity, immunomodulatory, anti-inflammatory, anti-asthma, anti-allergic, antibiotic, antiviral, anti-parasitic, anti-angiogenic, anti-metastatic, anticancer chemotherapeutic, and chemopreventive activities. ACA activates transient receptor potential A1 (TRPA1) channels and inhibits xanthine oxidase. ACA inhibits proliferation of *Staphylococcus* and *Leishmania* and suppresses replication of the influenza virus by inhibiting CRM1. In animal models fed high-fat diets, ACA limits activity of glucose-6-phosphate dehydrogenase, suppresses lipid accumulation, increases activation of AMPK, and decreases fat mass and body weight. In animal models of OVA-induced asthma, ACA suppresses eosinophil infiltration, decreases levels of IgE, IL-4, IL-13, IL-12 α , and IFN- γ , and prevents airway remodeling. In vitro, this compound increases levels of glutathione-S-transferase, NQO1, glutathione, Nrf2, and p21. Additionally, ACA inhibits VEGF-induced cellular proliferation, migration, adhesion, and tube formation in various in vitro and in vivo models. ACA also decreases NF- κ B activation and invasiveness in cellular models. In vivo, this compound prevents skin tumor carcinogenesis. In cellular and animal models of oral squamous cell carcinoma, ACA inhibits cellular proliferation and decreases tumor volume. In glioblastoma cells, this compound decreases levels of IL-6 and IL-1 α , inhibits cellular proliferation and migration, and induces apoptosis.

References Williams M, Tietzel I, Quick QA. 1'-Acetoxychavicol acetate promotes caspase 3-activated glioblastoma cell death by overcoming enhanced cytokine expression. *Oncol Lett.* 2013 Jun;5(6):1968-1972. PMID: 23833677.

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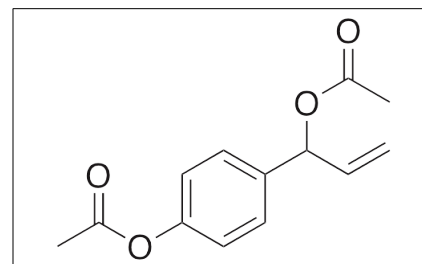
Ohnishi R, Matsui-Yuasa I, Deguchi Y, et al. 1'-acetoxychavicol acetate inhibits adipogenesis in 3T3-L1 adipocytes and in high fat-fed rats. *Am J Chin Med.* 2012;40(6):1189-204. PMID: 23227791.

In LL, Arshad NM, Ibrahim H, et al. 1'-Acetoxychavicol acetate inhibits growth of human oral carcinoma xenograft in mice and potentiates cisplatin effect via proinflammatory microenvironment alterations. *BMC Complement Altern Med.* 2012 Oct 9;12:179. PMID: 23043547.

Batra V, Syed Z, Gill JN, et al. Effects of the tropical ginger compound, 1'-acetoxychavicol acetate, against tumor promotion in K5.Stat3C transgenic mice. *J Exp Clin Cancer Res.* 2012 Jun 15;31:57. PMID: 22704648.

Yaku K, Matsui-Yuasa I, Azuma H, et al. 1'-Acetoxychavicol acetate enhances the phase II enzyme activities via the increase in

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



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
A0817	25 mg	\$87.30
A0817	100 mg	\$323.20
A0817	250 mg	\$590.10