LKT Laboratories, Inc.

D,L-1'-Acetoxychavicol Acetate

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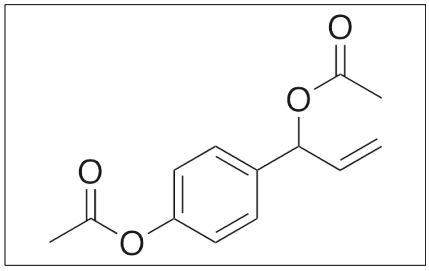
Product Information

Product ID A0817
CAS No. 52946-22-2
Chemical Name Benzenemethanol, 4-(acetyloxy)-α-ethenyl-, acetate

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



Formula $C_{13}H_{14}O_4$
Formula Wt. 234.25
Melting Point
Purity ≥98%
Solubility Soluble in DMSO (20 mg/mL), ethanol (20 mg/mL), DMF (14 mg/mL).

Bulk quanitites available upon request

Product ID	Size
A0817	25 mg
A0817	100 mg
A0817	250 mg

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-12α, 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-κB 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-1α, inhibits cellular proliferation and migration, and induces apoptosis.

References

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