Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Caffeic acid phenethyl ester

Catalog No: tcsc0008774

Available Sizes

Size: 5mg

Size: 10mg

Size: 100mg

Specifications

CAS No:
104594-70-9

Formula:
$C_{17}H_{16}O_4$

Pathway:
NF-κB

Target:
NF-κB

Purity / Grade:
>98%

Solubility:
DMSO : 150 mg/mL (527.59 mM; Need ultrasonic and warming)

Observed Molecular Weight:
284.31

Product Description

Caffeic acid phenethyl ester is a **NF-κB** inhibitor.

IC50 & Target: NF-κB[1]

In Vitro:

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Caffeic acid phenethyl ester is a NF-κB inhibitor. Cell survival and proliferation of CRPC cell lines are all significantly suppressed by Caffeic acid phenethyl ester (CAPE) treatment dose-dependently. The growth inhibitory effect of Caffeic acid phenethyl ester is evident within 24 hours of treatment but the suppressive effect accumulates over time. The IC_{50} of 24, 48, 72, and 96 h Caffeic acid phenethyl ester treatment on LNCaP 104-R1 cells is 64.0, 30.5, 20.5, and 18.0 μM, respectively. Colony formation assay reveals that treatment with 10 μM Caffeic acid phenethyl ester reduces colony formation of LNCaP 104-R1 cells by 90% while treatment with 20 μM Caffeic acid phenethyl ester completely blocks the formation of LNCaP 104-R1 colonies. Flow cytometric analysis reveals a reduction of cells in the S phase and G2/M phase but an increase of cells in the G1 phase population in LNCaP 104-R1 cells under Caffeic acid phenethyl ester treatment. Caffeic acid phenethyl ester treatment also significantly decreases protein levels of fatty acid synthase (FAS), retinoblastoma protein (Rb), phospho-Rb Ser807/811, c-Myc, p70S6kinase, phospho-p70S6kinase Thr421/Ser424, Skp2, p90RSK, and NF-κB p65[1].

In Vivo: Administration of Caffeic acid phenethyl ester (CAPE) by gavage (10 mg/kg body weight per day) for eight weeks results in 50% reduction of tumor volume, suggesting that Caffeic acid phenethyl ester treatment retards the growth of LNCaP 104-R1 xenografts. Caffeic acid phenethyl ester gavage slows down the tumor growth of LNCaP 104-R1 cells, which is consistent with our observation that Caffeic acid phenethyl ester treatment induces cell cycle arrest but not apoptosis[1].