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

Honokiol

Catalog No: tcsc1696

Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
35354-74-6

Formula:
$C_{18}H_{18}O_2$

Pathway:
Stem Cell/Wnt;MAPK/ERK Pathway;PI3K/Akt/mTOR;Autophagy

Target:
ERK;ERK;Akt;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (187.74 mM)

Alternative Names:
NSC 293100

Observed Molecular Weight:
266.33

Product Description

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Honokiol is a hydroxylated biphenyl compound, which inhibits the activation of **Akt** and enhances the phosphorylation of **ERK1/ERK2** .

In Vitro: Honokiol (0, 12.5, 25 and 50 μM) inhibits the growth of GBM cells and induces apoptosis, with IC_{50} of appr against 30 μM DBTRG-05MG cell. Honokiol-induced apoptosis of GBM cells is associated with the downregulation of the Rb protein and cleavage of PARP and Bcl-x (S/L). Honokiol (50 μM) increases the level of autophagy markers in GBM cells[1]. Honokiol has anticancer effect, and the IC_{50} values with MDA-MB-231, MDA-MB-468, and MDA-MB-453 cell lines is 16.99 ± 1.28 μM, 15.94 ± 2.35 μM and 20.11 ±3.13 μM respectively. Honokiol (3, 10 μM) produces significant inhibition on the spheroid number and spheroid sizes in the clonogenic assay[2]. Honokiol (0.1-1.0 μM) specifically inhibits washed human platelet aggregation stimulated by collagen, but not by other agonists. honokiol (0.6 and 1.0 μM) can concentration-dependently inhibit the collagen-induced ATP-release reaction in washed human platelets. Honokiol specifically inhibits platelet aggregation and the phosphorylation of Lyn, PLCγ2, and PKC stimulated with convulxin. Honokiol (5, 10 μM) significantly inhibits convulxin-stimulated MAPKs and Akt activation[3]. Honokiol (10, 20 μM) increases ERK1/2 phosphorylation in a dose-dependent manner depending on CaMK II activation[4].

In Vivo: Honokiol-NM (40 mg/kg, p.o.) produces superior anticancer effects, and the PCNA, Cyclin D1 and cleaved caspase 3 expressions are 2.12, 1.92 and 1.68-fold significantly altered in this treated group[2].