

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:

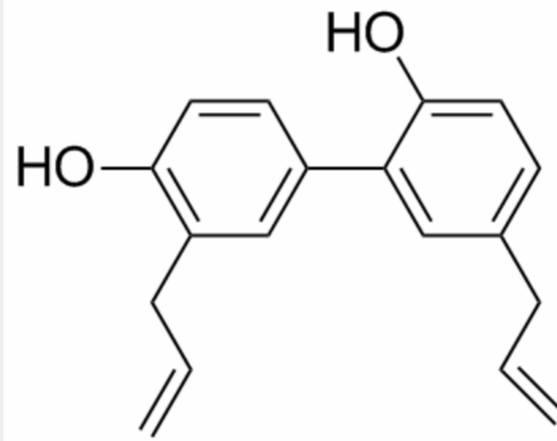
266.33

Product Description

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 $16.99 \pm 1.28 \mu\text{M}$, $15.94 \pm 2.35 \mu\text{M}$ and $20.11 \pm 3.13 \mu\text{M}$ 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, PLC γ 2, 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].



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