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

Kaempferol

Catalog No: tcsc1273

Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
520-18-3

Formula:
$C_{15}H_{10}O_6$

Pathway:
Others;Autophagy;Autophagy

Target:
Estrogen Receptor/ERR;Autophagy;Mitophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 32 mg/mL (111.79 mM)

Alternative Names:
Robigenin;Kempferol

Observed Molecular Weight:
286.24

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Product Description

Kaempferol inhibits **estrogen receptor α** expression in breast cancer cells and induces apoptosis in glioblastoma cells and lung cancer cells by activation of MEK-MAPK.

IC50 & Target: Estrogen receptor[1]

In Vitro: Kaempferol also has anti-inflammatory effects via inhibition of interleukin-4 and cyclo-oxygenase 2 expression by suppressing Src kinase and downregulating the NFκB pathway. Kaempferol is also effective in inhibiting angiogenesis and inducing apoptosis in ovarian cancer cells[1]. Kaempferol is a natural flavonoid that is widely distributed in fruits and vegetables, and prospective studies revealed that over decades, consumption of Kaempferol dramatically and significantly reduces the risk of ovarian cancer in American female nurses. After a 24-hour treatment, Kaempferol causes a significant and concentration-dependent inhibition of proliferation in all 3 ovarian cancer cells tested. This inhibition is observed at 40 μM or higher concentrations of treatment[2]. Kaempferol is a flavonoid which is abundant in a variety of plant derived food and leaves used in traditional medicines. Kaempferol significantly inhibits NADPH oxidase activity. Kaempferol decrease reactive oxygen species (ROS) by directly bound NADPH oxidase. Kaempferol prevents Ang II-induced sinus nodal cell death by lowering CAMKII oxidization[3].10-20 μM Kaempferol dose-dependently suppresses its release in sensitized RBL-2H3 cells. When 10-20 μM Kaempferol is supplemented to DNP-BSA-challenged RBL-2H3 cells for 15 min, the activation of Syk and PLCγ is highly attenuated. When ≥10 μM Kaempferol is added to DNP-BSA-challenged RBL-2H3 cells for 60 min, the COX2 induction is reduced[4].

In Vivo: The COX2 induction is confirmed in the airways of BSA-challenged BALB/c mice. There is lack of COX2 in airways of untreated control mice observed. The BSA inhalation to mice led to enhanced COX2 induction (dark brown staining) in mouse airway, which is reversed by oral administration of Kaempferol. In BSA-challenged mice, there is a marked goblet cell hyperplasia and epithelial thickening observed. When 20 mg/kg Kaempferol is supplemented to BSA-challenged mice, the epithelial thickening completely disappeared[4].

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