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

Saikosaponin D

Catalog No: tcsc0008281

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
20874-52-6

Formula:
$C_{42}H_{68}O_{13}$

Pathway:
Others;JAK/STAT Signaling;Stem Cell/Wnt;NF-κB

Target:
Estrogen Receptor/ERR;STAT;STAT;NF-κB

Purity / Grade:
>98%

Solubility:
H2O :

Observed Molecular Weight:
780.98

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Product Description

Saikosaponin D is a triterpene saponin isolated from Bupleurum, with anti-inflammatory, anti-bacterial, anti-tumor, and anti-allergic activities; Saikosaponin D inhibits **selectin**, **STAT3** and **NF-kB** and activates **estrogen receptor-β**.

IC50 & Target: Selectin[1], STAT3, NF-kB[2], Estrogen receptor-β[3]

In Vitro: Saikosaponin D (Compound 3) is a triterpene saponin, which inhibits E-selectin, L-selectin and P-selectin binding to THP-1 cells, with IC_{50}s of 1.8 μM, 3.0 μM and 4.3 μM, and such effects are not due to cytotoxic action. Saikosaponin D (1, 5, 10 μM) dose-dependently inhibits the THP-1 adhesion to the HUVECs monolayer activated by TNF-α. Saikosaponin D (30 μM) also inhibits the expression of P-selectin ligand (CD162) in THP-1 cells[1]. Saikosaponin D (5 μM) suppresses the proliferation of HSC-T6 cells induced by H_2O_2 treatment, reduces the expression levels of α-SMA, TGF-β1, Hyp, COL1 and TIMP-1, and increases MMP-1 expressioon, thus inhibiting H_2O_2-induced excessive extracellular matrix (ECM) formation, with similar effects to estradiol (E2), and these effects are blocked by ER antagonists. Saikosaponin D also inhibits oxidative stress-induced ROS generation and down reduates MAPK signaling pathway, and the inhibition is also suppressed by ER antagonists[3].

In Vivo: Saikosaponin D (2 mg/kg/day, i.p.) shows a protective effect on overdose of acetaminophen (APAP)-induced liver injury of mice. Saikosaponin D affects APAP metabolism, increases GSH levels but does not alter PPARα activation. Saikosaponin D (2 mg/kg/day, i.p.) also suppresses APAP-induced increases in the expression of STAT3 target genes and pro-inflammatory cytokines and inhibits APAP-induced activation of STAT3 and NF-kB[2].