Saikosaponin A

Cat. No.: HY-N0246

CAS No.: 20736-09-8

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

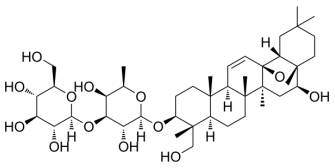
Molecular Weight: 780.98

Target: LXR; Bacterial

Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Anti-infection

Storage: -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (128.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.2804 mL	6.4022 mL	12.8044 mL
	5 mM	0.2561 mL	1.2804 mL	2.5609 mL
	10 mM	0.1280 mL	0.6402 mL	1.2804 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 10 mg/mL (12.80 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Saikosaponin A is an active component of Bupleurum chinensis, up-regulates LXRα expression, with potent anti-inflammatory activity[1].

In Vitro

Saikosaponin A (5-15 μM, 24 h) did not affect the viability of human osteoarthritis chondrocytes[1].
Saikosaponin A (5-15 μM, 24 h) inhibits IL-1β (HY-P73149)-induced NO and PGE2 production and NF-κB activation[1].
Saikosaponin A (5-15 μM, 24 h) up-regulates the expression of LXRα in a dose-dependent manner[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis	
Cell Line:	Human osteoarthritis chondrocytes
Concentration:	5, 10, 15 μM
Incubation Time:	24 h
Result:	Inhibited the levels of phosphorylation of NF-κB p65 and IκBα induced by IL-1β. Up-regulated the expression of LXRα in a dose-dependent manner.

In Vivo

Saikosaponin A (1-10 mg/kg, i.p, 7 d) attenuates the morphological changes in the small intestine induced by 5-FU[2].
Saikosaponin-A (1-10 mg/kg, i.p, 7 d) enhances the decrease of antioxidant enzymes in intestinal tissue caused by 5-FU[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	5-FU (HY-90006)-induced mucositis in BALB/c mice modle[2]
Dosage:	1, 5, 10 mg/kg/day, 7 d
Administration:	injected intraperitoneally (i.p)
Result:	Reduced villus blunting, crypt cells apoptosis, and inflammatory cell infiltration. Decreased concentration of GSH, GST, Catalase, and SOD in intestinal tissue.

CUSTOMER VALIDATION

- Mol Med Rep. 2023 Sep;28(3):159.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Jawad Ali, et al. Mucoprotective effects of Saikosaponin-A in 5-fluorouracil-induced intestinal mucositis in mice model. Life Sci. 2019.

[2]. Gao H, et al. Saikosaponin A inhibits IL-1β-induced inflammatory mediators in human osteoarthritis chondrocytes by activating LXRα. Oncotarget. 2017 Sep 30;8(51):88941-88950.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA