Tussilagone

Cat. No.: HY-N1388

CAS No.: 104012-37-5

Molecular Formula: $C_{23}H_{34}O_5$

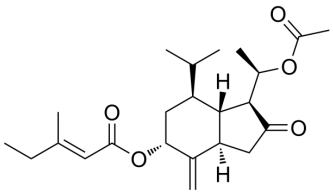
Molecular Weight: 390.51

Target: Others

Pathway: Others

Storage: -20°C, protect from light

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (160.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5608 mL	12.8038 mL	25.6075 mL
	5 mM	0.5122 mL	2.5608 mL	5.1215 mL
	10 mM	0.2561 mL	1.2804 mL	2.5608 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (16.00 mM); Clear solution
2. Add each solvent one by one: 15% Cremophor EL >> 85% Saline
   Solubility: 3 mg/mL (7.68 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Tussilagone, a major active component in Tussilago farfara, has anti-inflammatory effect. Tussilagone ameliorates inflammatory responses in dextran sulphate sodium-induced murine colitis. Tussilagone inhibits the inflammatory response and improves survival in cecal ligation and puncture (CLP)-induced septic mice[1][2].

In Vitro

Tussilagone suppressed the expression of the inflammatory mediators, nitric oxide and prostaglandin E2, and the inflammatory cytokines, tumor necrosis factor-alpha (TNF-α) and high-mobility group box 1 (HMGB1), in lipopolysaccharide-stimulated RAW 264.7 cells and peritoneal macrophages. Tussilagone also reduced the activation of the mitogen-activated protein kinases and nuclear factor kappa-light-chain-enhancer of activated B cells (NF-κB) involved in the activation of various inflammatory mediators in activated macrophages[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Tussilagone administration (1 mg/kg and 10 mg/kg) produced decreased mortality and lung injury in CLP-activated septic mice. Augmented expression of cyclooxygenase (COX)-2 and TNF-α in pulmonary alveolar macrophages of septic mice were attenuated by tussilagone administration[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Environ Toxicol. 2022 May;37(5):1198-1210.

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REFERENCES

[1]. Cheon HJ, et al. Tussilagone, a major active component in Tussilago farfara, ameliorates inflammatory responses in dextran sulphate sodium-induced murine colitis. Chem Biol Interact. 2018 Oct 1;294:74-80.

[2]. Kim YK, et al. Tussilagone Inhibits the Inflammatory Response and Improves Survival in CLP-Induced SepticMice. Int J Mol Sci. 2017 Dec 18;18(12). pii: E2744.

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