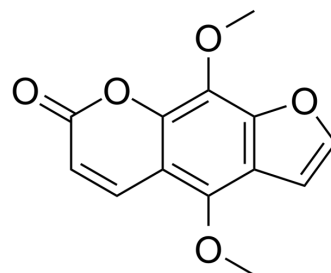


Isopimpinellin

Cat. No.:	HY-N0769
CAS No.:	482-27-9
Molecular Formula:	C ₁₃ H ₁₀ O ₅
Molecular Weight:	246.22
Target:	DNA/RNA Synthesis; Parasite
Pathway:	Cell Cycle/DNA Damage; Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (203.07 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	4.0614 mL	20.3070 mL	40.6141 mL
				5 mM	0.8123 mL	4.0614 mL	8.1228 mL
				10 mM	0.4061 mL	2.0307 mL	4.0614 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (10.15 mM); Suspended solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (10.15 mM); Suspended solution; Need ultrasonic						

BIOLOGICAL ACTIVITY

Description	Isopimpinellin, an orally active compound isolated from <i>Glomerella cingulata</i> . Isopimpinellin blocks DNA adduct formation and skin tumor initiation by 7,12-dimethylbenz[a]anthracene. Isopimpinellin possesses anti-leishmania effect ^[1] .	
IC ₅₀ & Target	Leishmania	
In Vivo	Isopimpinellin (oral gavage, 35-150 mg/kg) inhibits B[a]P-DNA adduct formation and DMBA-DNA adduct formation in SENCAR mice with skin tumor ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Female SENCAR mice (7-9 weeks of age) were fed AIN-76A semi-purified diet (Dyets,

	Bethlehem, PA) for 2 weeks prior to and during the study ^[1] .
Dosage:	35–150 mg/kg.
Administration:	Oral gavage, suspended in 0.1 mL corn oil at 24 h and 2 h prior to topical treatment with [³ H]B[a]P (200 nmol, 1 Ci/mmol) or [³ H]DMBA (10 nmol, 10 Ci/mmol) (each in 0.2 mL acetone).
Result:	Significantly inhibited B[a]P-DNA adduct formation by 37 and 26%, respectively. Isopimpinellin (35, 70 and 150 mg/kg) blocked DMBA-DNA adduct formation by 23, 56 and 69%, respectively

CUSTOMER VALIDATION

- bioRxiv. 2023 Jun 15.

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REFERENCES

[1]. Kleiner HE, et al. Oral administration of the citrus coumarin, isopimpinellin, blocks DNA adduct formation and skin tumor initiation by 7,12-dimethylbenz[a]anthracene in SENCAR mice. *Carcinogenesis*. 2002 Oct;23(10):1667-75.

Caution: Product has not been fully validated for medical applications. For research use only.

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