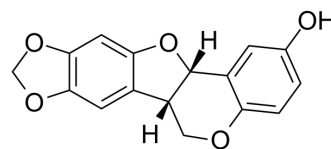


Maackiain

Cat. No.:	HY-N0381
CAS No.:	19908-48-6
Molecular Formula:	C ₁₆ H ₁₂ O ₅
Molecular Weight:	284.26
Target:	Parasite; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (879.48 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	3.5179 mL	17.5895 mL	35.1791 mL
				5 mM	0.7036 mL	3.5179 mL	7.0358 mL
				10 mM	0.3518 mL	1.7590 mL	3.5179 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 0.5% CMC-Na/saline water Solubility: 50 mg/mL (175.90 mM); Suspended solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (7.32 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.32 mM); Clear solution						
	4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.32 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Maackiain (DL-Maackiain) is isolated from <i>Maackia amurensis</i> Rupr.et Maxim. Maackiain (DL-Maackiain) is a larvicidal agent against <i>Aedes aegypti</i> mosquito.xp Parasitol with a LD ₅₀ of 21.95 µg/mL ^[1] . Maackiain (DL-Maackiain) induces fragmentations of DNA to oligonucleosomal-sized fragments that like a characteristic of apoptosis in the HL-60 cells ^[2] .
IC ₅₀ & Target	LD50: 21.95 µg/mL (<i>Aedes aegypti</i> mosquito.xp Parasitol) ^[1]

REFERENCES

- [1]. Bezerra-Silva PC, et al. Extract of *Bowdichia virgilioides* and maackiain as larvicidal agent against *Aedes aegypti* mosquito. *Parasitol.* 2015 Jun;153:160-4.
- [2]. Aratanechemuge Y, et al. Induction of apoptosis by maackiain and trifolirhizin (maackiain glycoside) isolated from sanzukon (*Sophora Subprostrate* Chen et T. Chen) in human promyelotic leukemia HL-60 cells. *Oncol Rep.* 2004 Dec;12(6):1183-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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