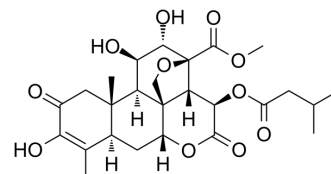


Bruceine A

Cat. No.:	HY-N0841
CAS No.:	25514-31-2
Molecular Formula:	C ₂₆ H ₃₄ O ₁₁
Molecular Weight:	522.54
Target:	Parasite; Antibiotic
Pathway:	Anti-infection
Storage:	<div> <div>Powder</div> <div>-20°C</div> <div>3 years</div> </div> <div> <div></div> <div>4°C</div> <div>2 years</div> </div> <div> <div>In solvent</div> <div>-80°C</div> <div>6 months</div> </div> <div> <div></div> <div>-20°C</div> <div>1 month</div> </div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 25 mg/mL (47.84 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.9137 mL	9.5686 mL	19.1373 mL
	5 mM		0.3827 mL	1.9137 mL	3.8275 mL
	10 mM		0.1914 mL	0.9569 mL	1.9137 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (3.98 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (3.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Bruceine A(NSC310616; Dihydrobrusatol) is a natural quassinoid compound extracted from the dried fruits of *Brucea javanica* (L.); are potential candidates for the treatment of canine babesiosis. IC₅₀ value: Target: Bruceine A inhibited the in vitro growth of *Babesia gibsoni* in canine erythrocytes at lower concentration compared with the standard antiparasitic drug diminazene aceturate and killed the parasites within 24 hr at a concentration of 25 nM. Oral administration of bruceine A at a dosage of 6.4 mg/kg/day for 5 days resulted in no clinical findings in a dog with normal ranges of hematological and biochemical values in the blood. Three dogs were infected with *B. gibsoni* and two of them were treated with bruceine A at a dosage of 6.4 mg/kg/day for 6 days from day 5 post-infection.

CUSTOMER VALIDATION

- Nat Microbiol. 2023 Jan;8(1):121-134.
- Biochem Pharmacol. 2023 Apr 26;115564.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Nakao R, et al. Evaluation of efficacy of bruceine A, a natural quassinoid compound extracted from a medicinal plant, Brucea javanica, for canine babesiosis. J Vet Med Sci. 2009 Jan;71(1):33-41.

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

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