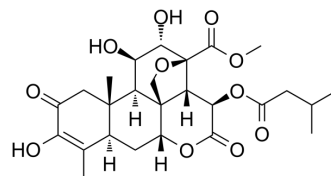


Bruceine A

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:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

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

Concentration	Mass		
	1 mg	5 mg	10 mg
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 antibabesial 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

- Biochem Pharmacol. 2023 Apr 26;115564.
- Chem Biol Drug Des. 2023 Nov 27:e14398.

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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