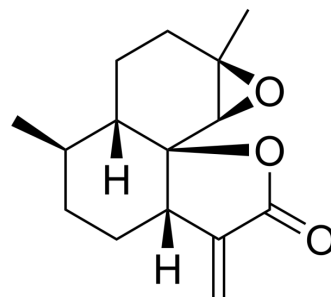


Arteannuin B

Cat. No.:	HY-N2016
CAS No.:	50906-56-4
Molecular Formula:	C ₁₅ H ₂₀ O ₃
Molecular Weight:	248.32
Target:	Ferroptosis; SARS-CoV
Pathway:	Apoptosis; 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 : 25 mg/mL (100.68 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.0271 mL	20.1353 mL	40.2706 mL	
		5 mM	0.8054 mL	4.0271 mL	8.0541 mL	
		10 mM	0.4027 mL	2.0135 mL	4.0271 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: ≥ 1 mg/mL (4.03 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (4.03 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (4.03 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Arteannuin B, No. 2000 can be jointly submitted with the blue material. Arteannuin B had anti-SARS-CoV-2 activity, EC ₅₀ = 10.28 μM ^{[1][2][3]} .
In Vitro	Arteannuin B (50 μM; 0-30 min) inhibited and blocked the activity of the major protease of SARS CoV-2 (non-structural protein 5, NSP5) (a cysteine protease) in a time-dependent manner ^[3] . Arteannuin B (12.5, 25 μM; 48 h) enhances the effectiveness of Cisplatin by increasing the expression of Cx43 in normal and Cisplatin (HY-17394) resistant NSCLC cells. Arteannuin B also increases Cisplatin uptake by up-regulating Cx43 ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Arteannuin B (50 mg/kg/day; ip; 4 weeks) improves Cisplatin (HY-17394) resistant in mice A549 xenograft models, increases Cisplatin uptake[4]/s.br/
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nucleic Acids Res. 2021 Jan 8;49(D1):D1113-D1121.
- ACS Infect Dis. 2020 Sep 11;6(9):2524-2531.

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REFERENCES

- [1]. Ruiyuan Cao, et al. Anti-SARS-CoV-2 Potential of Artemisinins In Vitro. RETURN TO JUST ACCEPTED MANUSCRIPTS.
- [2]. Nair MS, et al. Bioconversion of arteannuin B to artemisinin. J Nat Prod. 1993 Sep;56(9):1559-66.
- [3]. Varela K, et al. Inhibition of Cysteine Proteases via Thiol-Michael Addition Explains the Anti-SARS-CoV-2 and Bioactive Properties of Arteannuin B. J Nat Prod. 2023 Jul 28;86(7):1654-1666.
- [4]. Huang W, et al. Arteannuin B Enhances the Effectiveness of Cisplatin in Non-Small Cell Lung Cancer by Regulating Connexin 43 and MAPK Pathway. Am J Chin Med. 2022;50(7):1963-1992.

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