Artemisone

Cat. No.: HY-19502

CAS No.: 255730-18-8

Molecular Formula: $C_{19}H_{31}NO_6S$

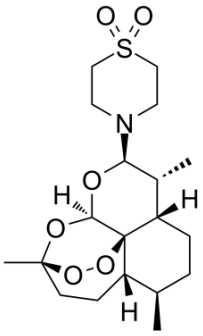
Molecular Weight: 401.52

Target: Parasite; CMV

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 : 130 mg/mL (323.77 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4905 mL	12.4527 mL	24.9054 mL
5 mM	0.4981 mL	2.4905 mL	4.9811 mL
10 mM	0.2491 mL	1.2453 mL	2.4905 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: ≥ 2.17 mg/mL (5.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.17 mg/mL (5.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.17 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Artemisone (Artemifone) is a potent and semi-synthetic antimalarial, inhibits P. falciparum strains, with a mean IC_{50} of 0.83 nM[1]. Artemisone is also a potent inhibitor of human CMV[2].

IC_{50} & Target

IC50: 0.83 nM (P. falciparum)[1]

In Vitro

Artemisone inhibits 3D7 and K1 P. falciparum, with IC_{50}s of 0.88±0.59 and 1.23±0.64 nM, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Artemisone is effectve at inhibiting the parasitaemia in the P. berghei NY susceptible strain, with an ED_{50} of 9.62 mg/kg via subcutaneous route and 11.67 mg/kg via oral administration[1]. Artemisone (3, 1, 0.3 and 0.1 mg/kg, s.c.) in combination with ohter antimalarials has enhanced effect against the chloroquine-resistant line P. yoelii NS[1] MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Vivas L, et al. Antimalarial efficacy and drug interactions of the novel semi-synthetic endoperoxide artemisone in vitro and in vivo. J Antimicrob Chemother. 2007 Apr;59(4):658-65.

[2]. Ruiyuan Cao, et al. Anti-SARS-CoV-2 Potential of Artemisinins In Vitro. ACS Infect. Dis. 2020 Jul.

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