Product Data Sheet

Albendazole sulfoxide

Cat. No.: HY-12785 CAS No.: 54029-12-8 Molecular Formula: $C_{12}H_{15}N_3O_3S$ Molecular Weight: 281.33 Target: Parasite Pathway: Anti-infection

Storage: Powder

-20°C 3 years 2 years

In solvent -80°C 2 years

> -20°C 1 year

SOLVENT & SOLUBILITY

In Vitro

DMSO: 25 mg/mL (88.86 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.5545 mL	17.7727 mL	35.5454 mL
	5 mM	0.7109 mL	3.5545 mL	7.1091 mL
	10 mM	0.3555 mL	1.7773 mL	3.5545 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: ≥ 2.08 mg/mL (7.39 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.39 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Albendazole sulfoxide (Ricobendazole), the main active metabolite of Albendazole, exhibits anti-parasite effect against Echinococcus multilocularis Metacestodes ^[1] .
In Vitro	Albendazole sulfoxide (10 μ g/mL, 3-16 days) shows parasitocidal effect against E. multilocularis metacestodes ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Albendazole sulfoxide (0.5 mg/kg, i.m., BID, 15 days) reduces cyst size and weight in Balb/c mice infected with protoscoleces

[3]

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

CUSTOMER VALIDATION

• Acta Trop. 2020 Dec;212:105708.

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REFERENCES

[1]. Ingold K, et al. Efficacies of albendazole sulfoxide and albendazole sulfone against In vitro-cultivated Echinococcus multilocularis metacestodes. Antimicrob Agents Chemother. 1999 May;43(5):1052-61.

[2]. Ahmadnia S, et al. In vivo evaluation of the efficacy of albendazole sulfoxide and albendazole sulfoxide loaded solid lipid nanoparticles against hydatid cyst. Exp Parasitol. 2013 Oct;135(2):314-9.

[3]. Gokhan Adas,, et al. Use of albendazole sulfoxide, albendazole sulfone, and combined solutions as scolicidal agents on hydatid cysts (in vitro study).

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

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