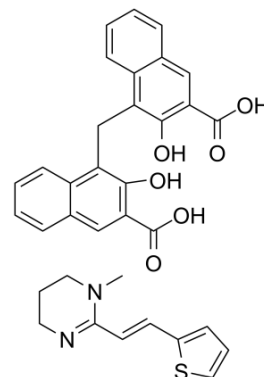


Pyrantel pamoate

Cat. No.:	HY-12640		
CAS No.:	22204-24-6		
Molecular Formula:	C ₃₄ H ₃₀ N ₂ O ₆ S		
Molecular Weight:	594.68		
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 : 50 mg/mL (84.08 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.6816 mL	8.4079 mL	16.8158 mL
		5 mM	0.3363 mL	1.6816 mL	3.3632 mL
10 mM		0.1682 mL	0.8408 mL	1.6816 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: ≥ 2.5 mg/mL (4.20 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Pyrantel pamoate (Pyrantel embonate), a tetrahydropyrimidine broad-spectrum anthelmintic, is a nicotinic acetylcholine receptor (nAChR) agonist. Pyrantel pamoate can elicit spastic muscle paralysis in parasitic worms. Pyrantel pamoate can be used for the research of gastrointestinal nematodes infections ^{[1][2][3]} .
In Vitro	Pyrantel induces <i>Ascaris suum</i> muscle contraction, with a pEC ₅₀ of 7.24 ^[1] . Pyrantel produces spastic paralysis of the nematode by selectively gating acetylcholine receptor ion-channels on nerve and muscle ^[1] . Pyrantel (72 h) inhibits the survival of <i>Ancylostoma ceylanicum</i> , <i>Necator americanus</i> and <i>Trichuris muris</i> on the third-stage larvae (IC ₅₀ s=90.9, 2.0, and 95.5 μg/mL, respectively) and adult worms (IC ₅₀ s=>100, 7.6, and 34.1 μg/mL, respectively) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Pyrantel (10 mg/kg; a single p.o.) reduces the worms in <i>A. ceylanicum</i> -infected hamsters, with the worm burden reduction of

87.2% and worm expulsion rate of 63.4%^[2].

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

REFERENCES

[1]. Kopp SR, et, al. Pyrantel in small animal medicine: 30 years on. *Vet J.* 2008 Nov;178(2):177-84.

[2]. Martin RJ, et, al. Oxantel is an N-type (methyridine and nicotine) agonist not an L-type (levamisole and pyrantel) agonist: classification of cholinergic anthelmintics in *Ascaris*. *Int J Parasitol.* 2004 Aug;34(9):1083-90.

[3]. Tritten L, et, al. In vitro and in vivo efficacy of Monepantel (AAD 1566) against laboratory models of human intestinal nematode infections. *PLoS Negl Trop Dis.* 2011 Dec;5(12):e1457.

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

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