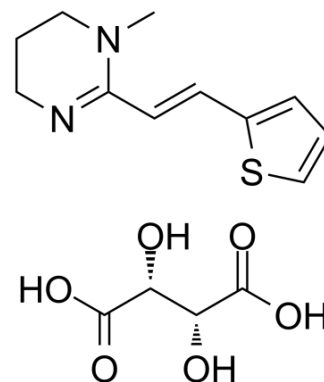


Pyrantel tartrate

Cat. No.:	HY-12641	
CAS No.:	33401-94-4	
Molecular Formula:	C ₁₅ H ₂₀ N ₂ O ₆ S	
Molecular Weight:	356.39	
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 : ≥ 34 mg/mL (95.40 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.8059 mL	14.0296 mL	28.0591 mL
	5 mM	0.5612 mL	2.8059 mL	5.6118 mL
	10 mM	0.2806 mL	1.4030 mL	2.8059 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 (5.84 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (5.84 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (5.84 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pyrantel tartrate, a tetrahydropyrimidine broad-spectrum anthelmintic, and is a nicotinic acetylcholine receptor (nAChR) agonist. Pyrantel tartrate can elicit spastic muscle paralysis in parasitic worms. Pyrantel tartrate can be used for the research of astrotintestinal nematodes infections^{[1][2][3]}.

In Vitro

Pyrantel induces *Ascaris suum* muscle contraction, with a pEC₅₀ 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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