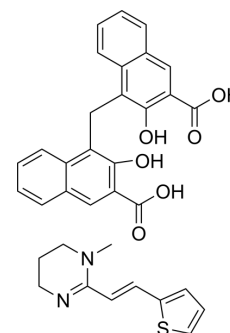


## Pyrantel pamoate

<b>Cat. No.:</b>	HY-12640
<b>CAS No.:</b>	22204-24-6
<b>Molecular Formula:</b>	C <sub>34</sub> H <sub>30</sub> N <sub>2</sub> O <sub>6</sub> S
<b>Molecular Weight:</b>	594.68
<b>Target:</b>	Parasite; nAChR; Antibiotic
<b>Pathway:</b>	Anti-infection; Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 20.83 mg/mL (35.03 mM); ultrasonic and warming and heat to 70°C)				
		<b>Solvent</b>	<b>Mass</b>		
	<b>Preparing Stock Solutions</b>	<b>Concentration</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>1 mM</b>	1.6816 mL	8.4079 mL	16.8158 mL
		<b>5 mM</b>	0.3363 mL	1.6816 mL	3.3632 mL
	<b>10 mM</b>	0.1682 mL	0.8408 mL	1.6816 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	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

<b>Description</b>	Pyrantel pamoate (Pyrantel embonate) is an orally active anthelmintic and an agonist of the nicotinic acetylcholine receptor (nAChR). Pyrantel pamoate can cause spasmodic muscle paralysis in parasites. Pyrantel pamoate can be used in the study of parasitic infections such as ascariasis, hookworm infections, intestinal worms (pinworm infections), trichinosis and trichinosis <sup>[1][2]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	Parasites <sup>[1][2]</sup> .	
<b>In Vitro</b>	Pyrantel pamoate (10 nM-10 μM; 72 h) shows good anti-A. suum and (0-168.2 M; 72 h) anti-N. americanus activity <sup>[1][2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Viability Assay <sup>[1]</sup>	
	Cell Line:	A. suum

Concentration:	10 nM-10 $\mu$ M
Incubation Time:	72 h
Result:	Inhibited <i>A. suum</i> with a pEC <sub>50</sub> value of 7.24.
Cell Viability Assay <sup>[2]</sup>	
Cell Line:	<i>N. americanus</i>
Concentration:	0-168.2 M (0-100 $\mu$ g/mL)
Incubation Time:	72 h
Result:	Inhibited third-stage larvae and adult of <i>N. americanus</i> with IC <sub>50</sub> values of 2.0 and 7.6 mg/mL, respectively.

#### In Vivo

Pyrantel pamoate (10 mg/kg; p.o.; single) reduces the worms in *A. ceylanicum*-infected hamsters, with the worm burden reduction of 87.2% and worm expulsion rate of 63.4%<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Syrian Golden hamsters (3-week-old; <i>A. ceylanicum</i> -infected) <sup>[2]</sup> .
Dosage:	10 mg/kg
Administration:	Oral administration; single.
Result:	Exhibited worm burden reduction and worm expulsion rates of 87.2% and 63.4%, respectively.

## REFERENCES

[1]. 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.

[2]. 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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