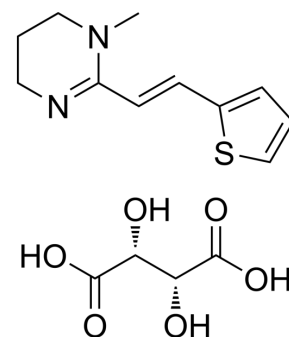


Pyrantel tartrate

| | |
|---------------------------|--|
| 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; nAChR; Antibiotic |
| Pathway: | Anti-infection; Membrane Transporter/Ion Channel; Neuronal Signaling |
| Storage: | 4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|---|----------------------|-------------|-------------|-------------|--------------|
| In Vitro | DMSO : ≥ 34 mg/mL (95.40 mM) | | | | | |
| | * "≥" means soluble, but saturation unknown. | | | | | |
| | Preparing Stock Solutions | Solvent | Mass | 1 mg | 5 mg | 10 mg |
| | | Concentration | | | | |
| | | 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 | 1. 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 | | | | | |
| | 2. 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 | | | | | |
| | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.84 mM); Clear solution | | | | | |

BIOLOGICAL ACTIVITY

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|-------------------------------------|--|
| Description | Pyrantel tartrate is an orally active anthelmintic and an agonist of the nicotinic acetylcholine receptor (nAChR). Pyrantel tartrate can cause spasmodic muscle paralysis in parasites. Pyrantel tartrate can be used in the study of parasitic infections such as ascariasis, hookworm infections, intestinal worms (pinworm infections), trichinosis and trichinosis ^{[1][2]} . |
| IC₅₀ & Target | Parasites ^{[1][2]} . |
| In Vitro | Pyrantel tartrate (10 nM-10 μM; 72 h) shows good anti-A. suum and (0-168.2 M; 72 h) anti-N. americanus activity ^{[1][2]} . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

| | | |
|------------------|--|--|
| | Cell Viability Assay ^[1] | |
| | Cell Line: | A. suum |
| | Concentration: | 10 nM-10 µM |
| | Incubation Time: | 72 h |
| | Result: | Inhibited A. suum with a pEC ₅₀ value of 7.24. |
| | Cell Viability Assay ^[2] | |
| | Cell Line: | N. americanus |
| | Concentration: | 0-168.2 M (0-100 µg/mL) |
| Incubation Time: | 72 h | |
| Result: | Inhibited third-stage larvae and adult of N. americanus with IC ₅₀ values of 2.0 and 7.6 mg/mL, respectively. | |
| In Vivo | <p>Pyrantel tartrate (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%^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> | |
| | Animal Model: | Male Syrian Golden hamsters (3-week-old; A. ceylanicum-infected) ^[2] . |
| | 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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