

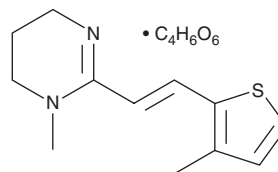
# PRODUCT INFORMATION



## Morantel (tartrate)

Item No. 22902

**CAS Registry No.:** 26155-31-7  
**Formal Name:** 1,4,5,6-tetrahydro-1-methyl-2-[(2E)-2-(3-methyl-2-thienyl)ethenyl]-pyrimidine,  
2R,3R-dihydroxybutanedioate  
**Synonyms:** CP 12,009-18, UK 2964-18  
**MF:** C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>S • C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>  
**FW:** 370.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 238, 323 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Morantel (tartrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the morantel (tartrate) in the solvent of choice, which should be purged with an inert gas. Morantel (tartrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of morantel (tartrate) in these solvents is approximately 1, 20, and 33 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of morantel (tartrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of morantel (tartrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Morantel is a positive allosteric modulator of neuronal nicotinic acetylcholine receptors (nAChRs).<sup>1</sup> It enhances channel gating of the α3β2 nAChR subtype by binding to non-canonical sites.<sup>2</sup> Formulations containing morantel are used to treat nematode infections in livestock.<sup>3</sup>

### References

1. Wu, T.Y., Smith, C.M., Sine, S.M., *et al.* Morantel allosterically enhances channel gating of neuronal nicotinic acetylcholine alpha 3 beta 2 receptors. *Mol. Pharmacol.* **74**(2), 466-475 (2008).
2. Seo, S., Henry, J.T., Lewis, A.H., *et al.* The positive allosteric modulator morantel binds at noncanonical subunit interfaces of neuronal nicotinic acetylcholine receptors. *J. Neurosci.* **29**(27), 8734-8742 (2009).
3. McKellar, Q.A., Scott, E.W., Baxter, P., *et al.* Pharmacodynamics, pharmacokinetics and faecal persistence of morantel in cattle and goats. *J. Vet. Pharmacol. Ther.* **16**(1), 87-92 (1993).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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