

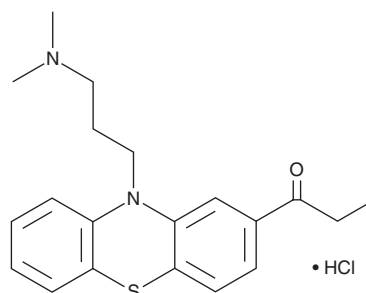
# PRODUCT INFORMATION



## Propionylpromazine (hydrochloride)

Item No. 31470

**CAS Registry No.:** 7681-67-6  
**Formal Name:** 1-[10-[3-(dimethylamino)propyl]-10H-phenothiazin-2-yl]-1-propanone, monohydrochloride  
**MF:** C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>OS • HCl  
**FW:** 376.9  
**Purity:** ≥93%  
**UV/Vis.:** λ<sub>max</sub>: 243, 276 nm  
**Supplied as:** A 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

Propionylpromazine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the propionylpromazine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Propionylpromazine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of propionylpromazine (hydrochloride) in these solvents is approximately 30 mg/ml.

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 propionylpromazine (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of propionylpromazine (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Propionylpromazine is a promazine neuroleptic and dopamine receptor antagonist.<sup>1-3</sup> It is an antagonist at the *I. scapularis* (tick) dopamine 2 receptor (*Isdop2*) and *A. aegypti* (mosquito) dopamine 2 receptor (*AaDOP2*), providing 94 and 85% inhibition, respectively, in a chemical screening assay at 10 μM.<sup>1,2</sup> Propionylpromazine inhibits recombinant *T. cruzi* trypanothione reductase (IC<sub>50</sub> = 357 μM) and is active against *T. brucei* trypomastigotes (ED<sub>50</sub> = 10.1 μM) but not *L. donovani* amastigotes or *T. cruzi* trypomastigotes (ED<sub>50</sub>s = >30 μM) in mouse peritoneal macrophages.<sup>4</sup> It increases survival of *C. elegans* in a model of paraquat-induced oxidative stress.<sup>5</sup> Propionylpromazine reduces stereotypic behavior induced by apomorphine in rats (ED<sub>50</sub> = 2.5 mg/kg, s.c.).<sup>1</sup> Formulations containing propionylpromazine have been used as tranquilizers in veterinary medicine.

### References

1. Fielding, S. and Lal, H. *Handbook of psychopharmacology*. Iversen, L.L., Iversen, S.D., and Snyder, S.H., editors, 1st edition, Plenum Press (1978).
2. Ejendal, K.F.K., Meyer, J.M., Brust, T.F., et al. *Insect Biochem. Molec.* **42(11)**, 846-853 (2012).
3. Meyer, J.M., Ejendal, K.F.K., Avramova, L.V., et al. *Plos Negl. Trop. D.* **6(1)**, e1478 (2012).
4. Chan, C., Yin, H., Garforth, J., et al. *J. Med. Chem.* **41(2)**, 148-156 (1998).
5. Ye, X., Linton, J.M., Schork, N.J., et al. *Aging Cell* **13(2)**, 206-215 (2014).

#### 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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