

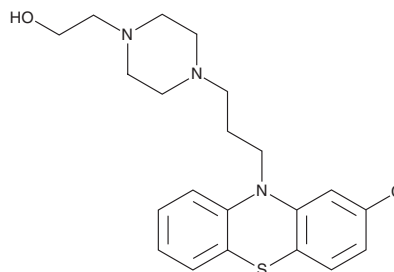
# PRODUCT INFORMATION



## Perphenazine

Item No. 20735

**CAS Registry No.:** 58-39-9  
**Formal Name:** 4-[3-(2-chloro-10H-phenothiazin-10-yl)propyl]-1-piperazineethanol  
**Synonyms:** NSC 150866, SCH 3940  
**MF:** C<sub>21</sub>H<sub>26</sub>ClN<sub>3</sub>OS  
**FW:** 404.0  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 257, 312 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

Perphenazine is supplied as a crystalline solid. A stock solution may be made by dissolving the perphenazine in the solvent of choice, which should be purged with an inert gas. Perphenazine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of perphenazine in these solvents is approximately 5, 20, and 30 mg/ml, respectively.

### Description

Perphenazine is a typical antipsychotic.<sup>1</sup> It binds to dopamine D<sub>2</sub>, α<sub>1A</sub>-, α<sub>2A</sub>-, α<sub>2B</sub>-, and α<sub>2C</sub>-adrenergic, M<sub>3</sub> muscarinic, and histamine H<sub>1</sub> receptors (K<sub>i</sub>s = 1.4, 10, 1,848, 104.9, 85.2, 810.5 and 8 nM, respectively), as well as the serotonin (5-HT) receptor subtypes 5-HT<sub>1A</sub>, 5-HT<sub>2A</sub>, 5-HT<sub>2C</sub>, 5-HT<sub>6</sub>, and 5-HT<sub>7</sub> (K<sub>i</sub>s = 421, 5.6, 132, 17, and 23 nM, respectively). Perphenazine (1, 5, and 10 mg/kg) enhances morphine-induced analgesia in the tail-flick and hot plate tests in rats.<sup>2</sup> It reduces cannibalism in female mice when administered at doses of 2 and 4 mg/kg.<sup>3</sup> Formulations containing perphenazine have been used in the treatment of schizophrenia and psychosis.

### References

1. Kroeze, W.K., Hufeisen, S.J., Popadak, B.A., *et al.* H<sub>1</sub>-Histamine receptor affinity predicts short-term weight gain for typical and atypical antipsychotic drugs. *Neuropsychopharmacology* **28**(3), 519-526 (2003).
2. Ozdemir, E., Bagcivan, I., and Gursay, S. Role of D<sub>1</sub>/D<sub>2</sub> dopamin receptors antagonist perphenazine in morphine analgesia and tolerance in rats. *Bosn. J. Basic Med. Sci.* **13**(2), 119-125 (2013).
3. Carter, D.B., Kennett, M.J., and Franklin, C.L. Use of perphenazine to control cannibalism in DBA/1 mice. *Comp. Med.* **52**(5), 452-455 (2002).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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