

MP Biomedicals, LLC

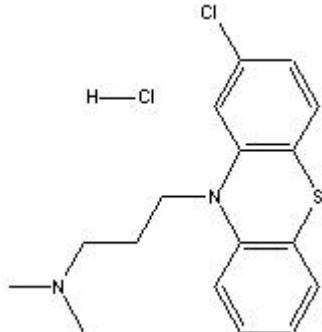
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## TECHNICAL INFORMATION

Catalog Number: 151454, 190326  
**Chlorpromazine hydrochloride**

### Structure:



**Molecular Formula:** C<sub>17</sub>H<sub>19</sub>CIN<sub>2</sub>S · HCl

**Molecular Weight:** 355.3

**CAS # :** 69-09-0

**Synonyms:** 2-Chloro-10-[3-dimethylamino-propyl] phenothiazine hydrochloride; 2-Chloro-N,N- dimethyl-10H- phenothiazine-10-propanamine hydrochloride; 3-Chloro-10-(3- dimethylaminopropyl) phenothiazine hydrochloride; N-(3-Dimethylaminopropyl)- 3-chlorophenothiazine hydrochloride; Chlorderazin hydrochloride

**Physical Description:** White to off-white powder/clear, colorless solution (each ml contains: 25 mg chlorpromazine hydrochloride, 2 mg ascorbic acid, 1 mg sodium metabisulfite, 1 mg sodium sulfite, 1 mg sodium chloride, with 2% benzyl alcohol as a preservative)

**Assay:** 100.09%

**Solubility:** Soluble in water (50 mg/ml - clear, colorless to faint yellow-grey solution), methanol, ethanol, chloroform; practically insoluble in ether, benzene.<sup>1</sup>

**Description:** Reported to be useful as a substitute for benzidine, o-dianisidine and o-tolidine in the determination of microquantities of hemoglobin and peroxidase. A phenothiazine antipsychotic; a D<sub>2</sub> and H<sub>1</sub> antagonist. Inhibits calmodulin-dependent stimulation of cyclic nucleotide phosphodiesterase and nitric oxide synthase. Reported to uncouple and inhibit oxidative phosphorylation at 10<sup>-3</sup> - 10<sup>-4</sup> M.<sup>5,6</sup> Possibly a photogenotoxic agent in humans.<sup>7</sup> Helps to induce hypothermia in mice in the dose range of 12.5-100 mg/kg.<sup>2,3</sup>

### Availability:

Catalog Number	Description	Size
151454	Chlorpromazine Hydrochloride, sterile solution, 25 mg/ml	10 ml
190326	Chlorpromazine Hydrochloride, solid	5 g 25 g 100 g

### References:

- Merck Index, 12th Ed., No. 2238.
- Asanami, S., Shimono, K. and Kaneda, S., "Transient hypothermia induces micronuclei in mice." *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*, v. 413:1, 7-14 (1998).
- Asanami, S. and Shimono, K., "Effects of chemically- and environmentally-induced hypothermia on micronucleus induction in rats." *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*, v. 471:1-2, 81-86 (2000).
- Collier, H.B., *Clin. Biochem.*, v. 7, 331 (1974).
- Dawkins, M.J.R., et al., *Biochem. J.*, v. 72, 204 (1959).
- Dawkins, M.J.R., et al., *Biochem. J.*, v. 73, 16 (1959).
- Kersten, B., et al., "The application of the micronucleus test in Chinese hamster V79 cells to detect drug-induced photogenotoxicity." *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*, v. 445:1, 55-71 (1999).
- Lee, K.T. and Ling, H., *Microchim. Acta.*, 995 (1969).
- Palacios, M., et al., *Biochem. Biophys. Res. Commun.*, v. 196, 280 (1993).