

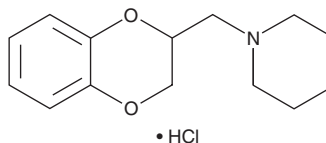
# PRODUCT INFORMATION



## Piperoxan (hydrochloride)

Item No. 27629

**CAS Registry No.:** 135-87-5  
**Formal Name:** 1-[(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]-piperidine, monohydrochloride  
**Synonym:** DL-Piperoxan  
**MF:** C<sub>14</sub>H<sub>19</sub>NO<sub>2</sub> • HCl  
**FW:** 269.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 220, 277, 283 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

Piperoxan (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the piperoxan (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Piperoxan (hydrochloride) is soluble in the organic solvent chloroform at a concentration of 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 piperoxan (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of piperoxan (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

Piperoxan is an α<sub>2</sub>-adrenergic receptor (α<sub>2</sub>-AR) antagonist (K<sub>i</sub>s = 5.4, 2, and 1.3 nM for α<sub>2A</sub>-, α<sub>2B</sub>-, and α<sub>2C</sub>-ARs, respectively) and a first generation histamine receptor antagonist.<sup>1,2</sup> It reverses decreases in systolic blood pressure induced by clonidine (Item No. 15949) in spontaneously hypertensive rats when administered at a dose of 10 mg/kg.<sup>3</sup>

### References

1. Blaxall, H.S., Murphy, T.J., Baker, J.C., *et al.* Characterization of the alpha-2C adrenergic receptor subtype in the opossum kidney and in the OK cell line. *J. Pharmacol. Exp. Ther.* **259(1)**, 323-329 (1991).
2. Parsons, M.E. and Ganellin, C.R. Histamine and its receptors. *Br. J. Pharmacol.* **147(Suppl. 1)**, S127-S135 (2006).
3. Robson, R.D., Antonaccio, M.J., Saelens, J.K., *et al.* Antagonism by mianserin and classical α-adrenoceptor blocking drugs of some cardiovascular and behavioral effects of clonidine. *Eur. J. Pharmacol.* **47(4)**, 431-442 (1978).

#### 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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