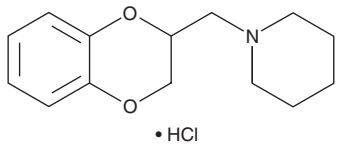
PRODUCT INFORMATION

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:	$C_{14}H_{19}NO_2$ • HCl
FW:	269.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 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_2-adrenergic receptor (α_2-AR) antagonist (K_is = 5.4, 2, and 1.3 nM for α_{2A}-, α_{2B}-, and α_{2C}-ARs, respectively) and a first generation histamine receptor antagonist.[1,2] 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.[3]

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).

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