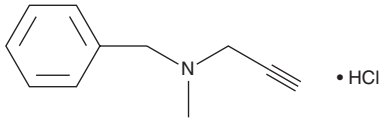
PRODUCT INFORMATION

Pargyline (hydrochloride)

Item No. 10007852

CAS Registry No.:	306-07-0
Formal Name:	N-methyl-N-2-propynyl-benzene-methanamine, monohydrochloride
Synonym:	NSC 43798
MF:	$C_{11}H_{13}N \bullet HCl$
FW:	195.7
Purity:	≥98%
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

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

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 pargyline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of pargyline (hydrochloride) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Pargyline is an irreversible inhibitor of monoamine oxidase (MAO; K_is = 15 and 1.8 µM for MAO-A and MAO-B, respectively).[1] At 10 mg/kg i.v., pargyline induces a moderate decrease of systolic blood pressure in unanaesthetized hypertensive rats but not normotensive WKR or Sprague-Dawley rats.[2] The correlation between the fall of blood pressure and the inhibition of brain MAO suggests that the accumulation of amine in brain is responsible for the fall in pressure.[3] Reactive oxygen species-mediated monocyte hypertrophy is prevented by pargyline at a concentration of 10 µM.[4] Formulations containing pargyline have been used to treat moderate hypertension.[4,5]

References

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2. Fuentes, J.A., Ordaz, A., and Neff, N.H. *Eur. J. Pharmacol.* **57(1)**, 21-27 (1979).
3. Yamori, Y., De Jong, W., Yamabe, H., *et al. J. Pharm. Pharmacol.* **24(9)**, 690-695 (1972).
4. Bianchi, P., Pimentel, D.R., Murphy, M.P., *et al. FASEB J.* **19(6)**, 641-643 (2005).
5. Puig, M., Wakade, A.R., and Kirpekar, S.M. *J. Pharmacol. Exp. Ther.* **182(1)**, 130-134 (1972).

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