

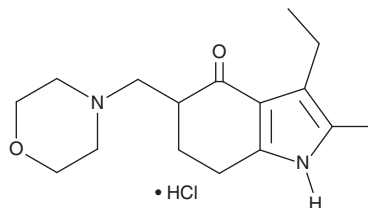
PRODUCT INFORMATION



Molindone (hydrochloride)

Item No. 23841

CAS Registry No.: 15622-65-8
Formal Name: 3-ethyl-1,5,6,7-tetrahydro-2-methyl-5-(4-morpholinylmethyl)-4H-indol-4-one, monohydrochloride
Synonyms: EN 1733A, (±)-Molindone
MF: C₁₆H₂₄N₂O₂ • HCl
FW: 312.8
Purity: ≥98%
UV/Vis.: λ_{max}: 210, 255, 297 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

Molindone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the molindone (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Molindone (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of molindone (hydrochloride) in these solvents is approximately 2 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 molindone (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of molindone (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

Molindone is a dopamine receptor antagonist.¹ It selectively inhibits radioligand binding to dopamine D₂ receptors in rat brain homogenates (IC₅₀s = 56 and >10,000 nM for D₂ and D₁ receptors, respectively), however, it inhibits radioligand binding to both D₂ and D₁ receptors *in vivo* (ED₅₀s = 4.9 and 51 mg/kg, respectively). Molindone (0.4-0.8 mg/kg) reverses depression of dopamine neurons induced by D-amphetamine and apomorphine (Item No. 16094) and increases dopamine synthesis and dihydroxyphenylacetic acid levels in the striatum and olfactory tubercles in rats.² It suppresses spontaneous locomotion and blocks conditioned avoidance responses in male mice and female rats.³ It inhibits climbing behavior in mice induced by the D₂ receptor agonist bromocriptine (Item No. 14598).⁴ Molindone (0.3-5.6 mg/kg) increases error rates and reduces response rate in pigeons following learned acquisition.⁵ Formulations containing molindone have been used in the treatment of schizophrenia.

References

1. Andersen, P.H. *Eur. J. Pharmacol.* **146(1)**, 113-120 (1988).
2. Bunney, B.S., Roth, R.H., and Aghajanian, G.K. *Psychopharmacol. Commun.* **1(4)**, 349-358 (1975).
3. Rubin, A.A., Yen, H.C., and Pfeffer, M. *Nature* **216(5115)**, 578-579 (1967).
4. Balsara, J.J., Nandal, N.V., Gada, V.P., et al. *Indian J. Physiol. Pharmacol.* **30(1)**, 85-90 (1986).
5. Poling, A., Cleary, J., Berens, K., et al. *J. Pharmacol. Exp. Ther.* **255(3)**, 1240-1245 (1990).

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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