

PRODUCT INFORMATION



(-)-Apomorphine (hydrochloride)

Item No. 16094

CAS Registry No.: 314-19-2

Formal Name: 5,6,6aR,7-tetrahydro-6-methyl-4H-dibenzo[de,g]quinoline-10,11-diol, monohydrochloride

Synonyms: NSC 11442, Uprima

MF: $C_{17}H_{17}NO_2 \cdot HCl$

FW: 303.8

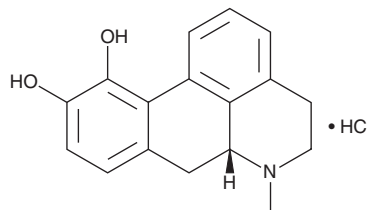
Purity: $\geq 95\%$

UV/Vis.: λ_{max} : 274 nm

Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

(-)-Apomorphine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the (-)-apomorphine (hydrochloride) in the solvent of choice. (-)-Apomorphine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (-)-apomorphine (hydrochloride) in these solvents is approximately 1, 15, and 20 mg/ml, respectively.

(-)-Apomorphine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (-)-apomorphine (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (-)-Apomorphine (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(-)-Apomorphine is a non-selective dopamine receptor agonist that exhibits pK_i values of 6.43, 7.08, 7.59, 8.36, and 7.83 for human recombinant D_1 , D_2L , D_3 , D_4 , and D_5 receptors, respectively.^{1,2} It produces biphasic effects on locomotor activity and displays anti-parkinsonism and neuroprotective actions.^{1,3,4}

References

1. Millan, M.J., Maiorini, L., Cussac, D., *et al.* Differential actions of antiparkinson agents at multiple classes of monoaminergic receptor. I. A multivariate analysis of the binding profiles of 14 drugs at 21 native and cloned human receptor subtypes. *J. Pharmacol. Exp. Ther.* **303**(2), 791-804 (2002).
2. Seeman, P., Grigoriadis, D.E., and Niznik, H.B. Selectivity of agonists and antagonists at D_2 dopamine receptors compared to D_1 and S_2 receptors. *Drug Dev. Res.* **9**, 63-69 (1986).
3. Newman-Tancredi, A., Cussac, D., Audinot, V., *et al.* Differential actions of antiparkinson agents at multiple classes of monoaminergic receptor. II. Agonist and antagonist properties at subtypes of dopamine D_2 -like receptor and α_1/α_2 -adrenoceptor. *J. Pharmacol. Exp. Ther.* **303**(2), 805-814 (2002).
4. Schechter, M.D., Rosecrans, J.A., and Glennon, R.A. Comparison of behavioral effects of cathinone, amphetamine and apomorphine. *Pharmacol. Biochem. Behav.* **20**(2), 181-184 (1984).

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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