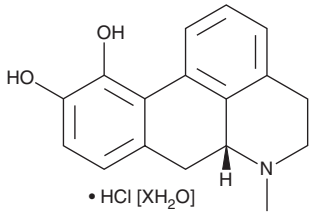
PRODUCT INFORMATION

(–)-Apomorphine (hydrochloride hydrate)

Item No. 16094

CAS Registry No.: 58117-94-5
Formal Name: 5,6,6aR,7-tetrahydro-6-methyl-4H-dibenzo[de,g]quinoline-10,11-diol, monohydrochloride, hydrate
MF: $C_{17}H_{17}NO_2$ • HCl [XH_2O]
FW: 303.8
Purity: ≥95%
UV/Vis.: λ_{max}: 274 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

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

(–)-Apomorphine (hydrochloride hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (–)-apomorphine (hydrochloride hydrate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (–)-Apomorphine (hydrochloride hydrate) 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., Maiofiss, 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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM