

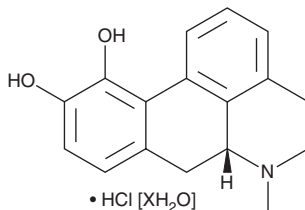
# PRODUCT INFORMATION



## (-)-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<sub>17</sub>H<sub>17</sub>NO<sub>2</sub> • HCl [XH<sub>2</sub>O]  
**FW:** 303.8  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 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<sub>i</sub> values of 6.43, 7.08, 7.59, 8.36, and 7.83 for human recombinant D<sub>1</sub>, D<sub>2L</sub>, D<sub>3</sub>, D<sub>4</sub>, and D<sub>5</sub> receptors, respectively.<sup>1,2</sup> It produces biphasic effects on locomotor activity and displays anti-Parkinsonism and neuroprotective actions.<sup>1,3,4</sup>

### 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<sub>2</sub> dopamine receptors compared to D<sub>1</sub> and S<sub>2</sub> 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<sub>2</sub>-like receptor and α<sub>1</sub>/α<sub>2</sub>-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.

#### WARRANTY AND LIMITATION OF REMEDY

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