

Certificate of Analysis

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Product Name: (R)-(-)-Apomorphine hydrochloride

Catalog No.: 2073

Batch No.: 5

CAS Number: 314-19-2

EC Number: 206-243-0

IUPAC Name: (R)-5,6,6a,7-Tetrahydro-6-methyl-4H-dibenzo[de,g]quinoline-10,11-diol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₇NO₂.HCl.½H₂O

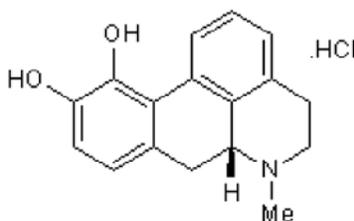
Batch Molecular Weight: 312.8

Physical Appearance: Off White solid

Solubility: water to 50 mM
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -52.1 (Concentration = 1.2, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.28	6.12	4.48
Found	65.27	6.13	4.48

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Prototypical dopamine agonist (pK_i values are 6.43, 7.08, 7.59, 8.36 and 7.83 for human recombinant D₁, D_{2L}, D₃, D₄ and D₅ receptors respectively). Produces biphasic effects on locomotor activity, and displays anti-Parkinsonian and neuroprotective actions following systemic administration in vivo.

Physical and Chemical Properties:

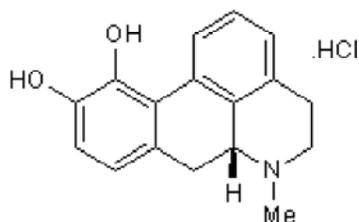
Batch Molecular Formula: C₁₇H₁₇NO₂.HCl.½H₂O

Batch Molecular Weight: 312.8

Physical Appearance: Off White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 50 mM

DMSO to 100 mM

CAUTION - Aqueous solutions decompose on storage and should not be used if they turn green or brown, or contain a precipitate.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Millan *et al* (2002) 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** 791. PMID: 12388666.

Grunblatt *et al* (1999) Apomorphine protects against MPTP-induced neurotoxicity in mice. *Mov.Disord.* **14** 612. PMID: 10435498.

Liu *et al* (1996) Low doses of apomor. suppress operant motor performance in rats. *Pharmacol.Biochem.Behav.* **53** 335. PMID: 8808141.

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