

Certificate of Analysis

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Product Name: Dihydropyridine hydrochloride

Catalog No.: 0884

Batch No.: 12

CAS Number: 137417-08-4

IUPAC Name: (±)-*trans*-10,11-Dihydroxy-5,6,6a,7,8,12b-hexahydrobenzo[*a*]phenanthridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₇NO₂.HCl.¼H₂O

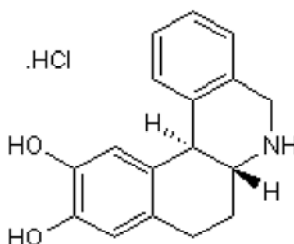
Batch Molecular Weight: 308.29

Physical Appearance: Pale yellow solid

Solubility: water to 10 mM
DMSO to 50 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.0 % purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.23	6.05	4.54
Found	66.49	5.97	4.45

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

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IUPAC Name: (\pm)-*trans*-10,11-Dihydroxy-5,6,6a,7,8,12b-hexahydrobenzo[*a*]phenanthridine hydrochloride

Description:

Dihydropyridine hydrochloride is an a potent, full efficacy dopamine D₁ agonist which shows no agonist activity at peripheral D₂ receptors or adrenoceptors at doses which cause maximal stimulation of D₁ sites. The compound appears to be fully bioavailable in brain and exhibits profound antiparkinsonism effects in vivo.

Physical and Chemical Properties:

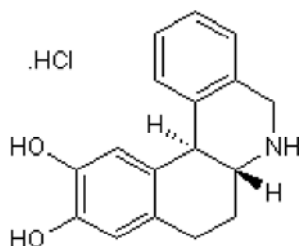
Batch Molecular Formula: C₁₇H₁₇NO₂.HCl.1/4H₂O

Batch Molecular Weight: 308.29

Physical Appearance: Pale yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Kholi et al (1993) Dihydropyridine: a new potent peripheral DA D₁ receptor agonist. *Eur.J.Pharmacol.* **235** 31. PMID: 8100195.

Taylor et al (1991) Dihydropyridine, a full DA D₁ agonist, reduces MPTP-induced parkinsonism in monkeys. *Eur.J.Pharmacol.* **199** 389. PMID: 1680717.

Brewster et al (1990) *Trans*-10,11-dihydroxy-5,6,6a,7,8,12b-hexahydrobenzo[*a*]phenanthridine: a highly potent selective DA D₁ full agonist. *J.Med.Chem.* **33** 1756. PMID: 1971308.

Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 10 mM

DMSO to 50 mM

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.

Licensing Information:

Sold under license, US Patent 5,047,536

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