Print Date: Jun 24th 2022

Certificate of Analysis

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Product Name: **Dihydrexidine hydrochloride** **Catalog No.: 0884** **Batch No.: 7**

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: $C_{17}H_{17}NO_2.HCl.½H_2O$

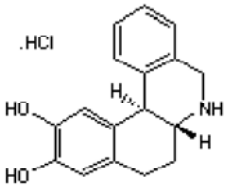
Batch Molecular Weight: 312.8

Physical Appearance: Light yellow solid

Solubility: water to 10 mM
DMSO to 50 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: At 295°C(Dec)

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	
Theoretical	65.28	6.12	4.48	0 0 0
Found	65.09	5.98	4.36	0 0 0

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Description:

Dihydrexidine hydrochloride is an a potent, full efficacy dopamine D_1 agonist which shows no agonist activity at peripheral D_2 receptors or adrenoceptors at doses which cause maximal stimulation of D_1 sites. The compound appears to be fully bioavailable in brain and exhibits profound antiparkinsonism effects in vivo.

Physical and Chemical Properties:

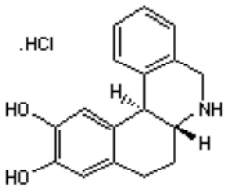
Batch Molecular Formula: $C_{17}H_{17}NO_2.HCl.½H_2O$

Batch Molecular Weight: 312.8

Physical Appearance: Light yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



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

References:

Kholi *et al* (1993) Dihydrexidine: a new potent peripheral DA D_1 receptor agonist. Eur.J.Pharmacol. ***235*** 31. PMID: 8100195.

Taylor *et al* (1991) Dihydrexidine, a full DA D_1 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 D_1 full agonist. J.Med.Chem. ***33*** 1756. PMID: 1971308.