

Certificate of Analysis

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Product Name: Tacrine hydrochloride

Catalog No.: 0965

Batch No.: 5

CAS Number: 1684-40-8

EC Number: 216-867-5

IUPAC Name: 1,2,3,4-Tetrahydro-5-aminoacridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₄N₂.HCl.2H₂O

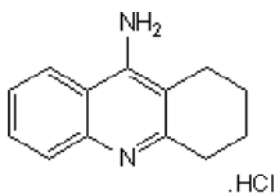
Batch Molecular Weight: 270.76

Physical Appearance: Off White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.67	7.07	10.35
Found	57.87	6.91	10.28

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

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IUPAC Name: 1,2,3,4-Tetrahydro-5-aminoacridine hydrochloride

Description:

Potent cholinesterase inhibitor, a cognition enhancer in vivo.

Physical and Chemical Properties:

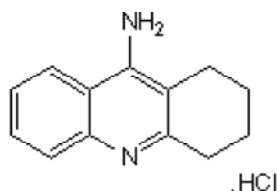
Batch Molecular Formula: C₁₃H₁₄N₂.HCl.2H₂O

Batch Molecular Weight: 270.76

Physical Appearance: Off White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 mM

DMSO to 100 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.

References:

Snape et al (1999) A comparative study in rats of the in vitro and in vivo pharmacology of the acetylcholinesterase inhibitors tacrine, donep. and NXX-066. *Neuropharmacology* **38** 181. PMID: 10193909.

Osborne and Christie (1996) Tetrahydro-9-aminoacridine has mixed actions on muscarinic currents and blocks opioid currents in rat locus ceruleus neurons. *J.Pharmacol.Exp.Ther.* **276** 137. PMID: 8558423.

Freeman and Dawson (1991) Tacrine: a pharmacological review. *Prog.Neurobiol.* **36** 257. PMID: 1714613.

Summers and Kaufman (1980) THA- A review of the literature and its use in treatment of five overdose patients. *Clin.Toxicol.* **16** 269. PMID: 6994999.

Merck Index **12** 9199.

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