

Certificate of Analysis

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Product Name: A 77636 hydrochloride

Catalog No.: 1701

Batch No.: 8

CAS Number: 145307-34-2

IUPAC Name: (1*R*-*cis*)-1-(Aminomethyl)-3,4-dihydro-3-tricyclo[3.3.1.1^{3,7}]dec-1-yl-[1*H*]-2-benzopyran-5,6-diol hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₇NO₃.HCl.½H₂O

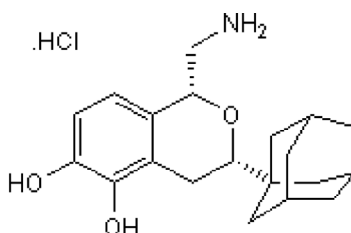
Batch Molecular Weight: 374.91

Physical Appearance: Off-white solid

Solubility:
water to 100 mM
ethanol to 100 mM
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -76.4 (Concentration = 0.93, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.07	7.8	3.74
Found	63.7	7.92	3.9

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

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Description:

A 77636 hydrochloride is a potent and selective dopamine D₁-like receptor agonist (pEC₅₀ values are 8.97 and < 5 for D₁-like and D₂-like receptors respectively). Displays anti-Parkinsonian activity following oral administration in vivo. Exhibits 11-fold cell type bias over dopamine in a functional assay in U2 cells.

Physical and Chemical Properties:

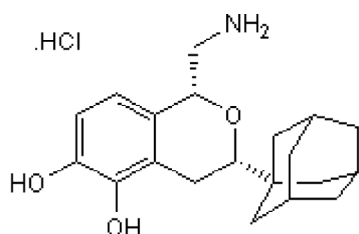
Batch Molecular Formula: C₂₀H₂₇NO₃.HCl.½H₂O

Batch Molecular Weight: 374.91

Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

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 100 mM
ethanol 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Lewis et al (1998) Homologous desensitization of the D_{1A} DA receptor: efficacy in causing desensitization dissociates from both receptor occupancy and functional potency. *J.Pharmacol.Exp.Ther.* **286** 345. PMID: 9655879.

Acquas et al (1994) The potent and selective DA D₁ receptor agonist A-77636 increases cortical and hippocampal acetylcholine release in the rat. *Eur.J.Pharmacol.* **260** 85. PMID: 7957630.

Kebabian et al (1992) A-77636: a potent and selective DA D₁ receptor agonist with antiparkinsonian activity in marmosets. *Eur.J.Pharmacol.* **229** 203. PMID: 1362704.

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