

Product Name: (+)-Tubocurarine chloride

Catalog No.: 2820

Batch No.: 8

CAS Number: 57-94-3

EC Number: 200-356-9

IUPAC Name: 2,3,13a,14,15,16,25,25a,-Octahydro-9,19-dihydroxy-18,29-dimethoxy-1,14,14-trimethyl-13*H*-4,6:21,24-dietheno-8,12-metheno-1*H*-pyrido[3',2':14,15][1,11]dioxacycloeicosino[2,3,4-*ij*]isoquinolinium chloride hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₇H₄₁ClN₂O₆.HCl.4½H₂O

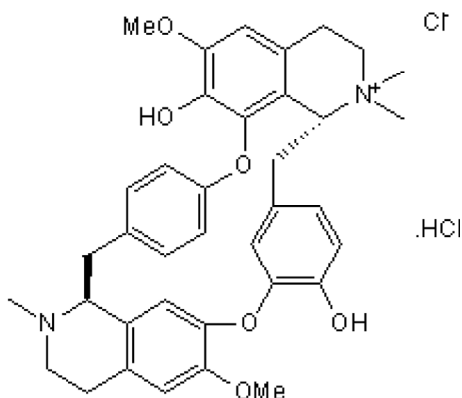
Batch Molecular Weight: 762.72

Physical Appearance: White solid

Solubility: water to 25 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = +205.4 (Concentration = 0.78, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	58.27	6.74	3.67	9.3
Found	57.42	6.45	3.47	9.51

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

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Description:

(+)-Tubocurarine chloride is a competitive, non-selective nicotinic acetylcholine receptor antagonist; causes skeletal muscle relaxation. Also a 5-HT₃ and GABA_A receptor antagonist.

Physical and Chemical Properties:

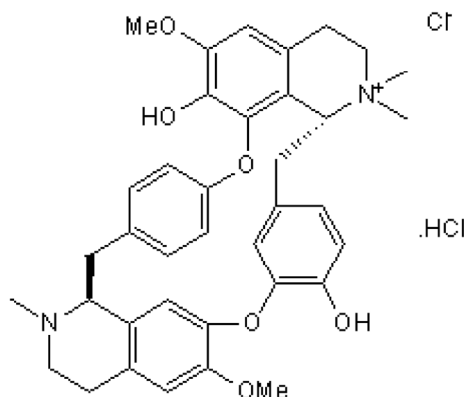
Batch Molecular Formula: C₃₇H₄₁ClN₂O₆.HCl.4½H₂O

Batch Molecular Weight: 762.72

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 25 mM

CAUTION - This product is extremely hygroscopic and we recommend that it is desiccated upon arrival.

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:

Wotring and Yoon (1995) The inhibitory effects of nicotinic antagonists on currents elicited by GABA in rat hippocampal neurons. *Neurosci.* **67** 293.

Pederson and Cohen (1990) *d*-Tubocurarine binding sites are located at α-γ and α-δ subunit interfaces of the nicotinic acetylcholine receptor. *Proc.Natl.Acad.Sci.USA* **87** 2785.

Peters et al (1990) Antagonism of 5-HT₃ receptor mediated currents in murine N1E-115 neuroblastoma cells by (+)-tubocurarine. *Neurosci.Letts.* **110** 107.

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