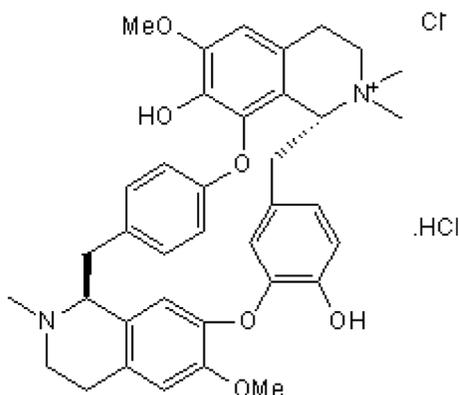


**Product Name:** (+)-Tubocurarine chloride      **Catalog No.:** 2820      **Batch No.:** 8  
**CAS Number:** 57-94-3      **EC Number:** 200-356-9  
**IUPAC Name:** 2,3,13a,14,15,16,25,25a,-Octahydro-9,19-dihydroxy-18,29-dimethoxy-1,14,14-trimethyl-13*H*-4,6:21,24-dietheno-8,12-metheno-1*H*-pyrido[3',2':14,15][1,11]dioxacycloeicosino[2,3,4-*ij*]isoquinolinium chloride hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>37</sub>H<sub>41</sub>ClN<sub>2</sub>O<sub>6</sub>.HCl.4½H<sub>2</sub>O  
**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  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +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

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**Description:**

(+)-Tubocurarine chloride is a competitive, non-selective nicotinic acetylcholine receptor antagonist; causes skeletal muscle relaxation. Also a 5-HT<sub>3</sub> and GABA<sub>A</sub> receptor antagonist.

**Physical and Chemical Properties:**

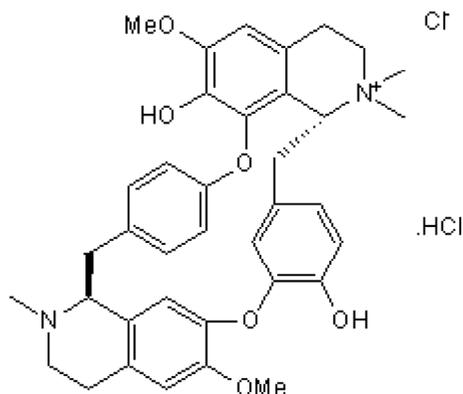
Batch Molecular Formula: C<sub>37</sub>H<sub>41</sub>ClN<sub>2</sub>O<sub>6</sub>.HCl.4½H<sub>2</sub>O

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

This compound is hygroscopic and may absorb atmospheric moisture during prolonged storage, causing the solid to become sticky and/or collapse into a gel or glass-like form. Although purity is unaffected, it may be difficult to extract the full quantity from the vial. In such a situation, we recommend that solutions are made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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-HT<sub>3</sub> receptor mediated currents in murine N1E-115 neuroblastoma cells by (+)-tubocurarine. *Neurosci.Letts.* **110** 107.

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