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DATASHEET

(+)-Tubocurarine chloride

Product overview

Name	(+)-Tubocurarine chloride
Cat No	HB2050
Alternative names	DTC, d-tubocurarine
Biological action	Antagonist
Purity	>98%
Description	Nicotinic acetylcholine receptors (nACHR) antagonist. Neuromuscular blocker.

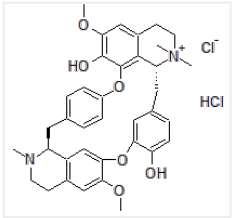
Biological Data

Biological description	Tubocurarine is a competitive, non-selective nicotinic acetylcholine receptors (nACHR) antagonist which blocks neuromuscular transmission. Tubocurarine is also a $GABA_A$ and $5\text{-}HT_3$ receptor antagonist.

Solubility & Handling

Storage instructions	+4°C (desiccate)
Solubility overview	Soluble in water (25 mM), and in DMSO (10 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	(13aR,25aS)-2,3,13a,14,15,16,25,25a-Octahydro-9,19-dihydroxy-18,29-dimethoxy-1,14,14-trimethyl-13H-4,6:21,24-dietheno-8,12-metheno-1H-pyrido[3',2':14,15][1,11]dioxacycloeicosino[2,3,4-ij]isoquinolinium chloride hydrochloride pentahydrate
Molecular Weight	771.72
Chemical structure	
Molecular Formula	$C_{37}H_{41}ClN_2O_6.HCl.5H_2O$
CAS Number	6989-98-6
PubChem identifier	23422
SMILES	CN1CCC2=CC(=C3C=C2[C@@H]1CC4=CC=C(C=C4)OC5=C6[C@@H](CC7=CC(=C(C=C7)O)O3)[N+](CCC6=CC(=C5O)OC)(C)C)OC.O.O.O.O.O.Cl.[Cl-]
InChi	InChI=1S/C37H40N2O6.2ClH.5H2O/c1-38-14-12-24-19-32(42-4)33-21-27(24)28(38)16-22-6-9-26(10-7-22)44-37-35-25(20-34(43-5)36(37)41)13-15-39(2,3)29(35)17-23-8-11-30(40)31(18-23)45-33;;;;;;;/h6-11,18-21,28-29H,12-17H2,1-5H3,(H-,40,41);2*1H;5*1H2/t28-,29+;;;;;;;
InChiKey	WMIZITXEJNQAQK-GGDSLZADSA-N
MDL number	MFCD00150157
Appearance	White solid

References

Pre-and post-junctional effects of tubocurarine and other nicotinic antagonists during repetitive stimulation in the rat.

Gibb and Marhsall (1984) J Physiol 351
PubMedID 6747867

The actions of tubocurarine at the frog neuromuscular junction.

Colquhoun et al (1979) J Physiol. 293
PubMedID 315462

The effect of (+)-tubocurarine on neuromuscular transmission during repetitive stimulation in the rat, mouse, and frog.

Magleby et al (1981) J Physiol. 312
PubMedID 6267269