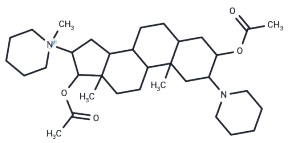
Data Sheet (Cat.No.T1594)

TargetMol

Vecuronium bromide

Chemical Properties



CAS No. : 50700-72-6

Formula: C34H57BrN2O4

Molecular Weight: 637.73

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Vecuronium bromide (ORG NC 45) is a synthetic, intermediate-acting, mono-quaternary steroid that functions as a non-depolarizing neuromuscular blocking agent with muscle relaxant properties.
Targets(IC50)	AChR
In vitro	Vecuronium inhibits both forms of the muscle-type acetylcholine receptor (IC50: 1-2 nM). Vecuronium combined with methylprednisolone shows additive effects on both receptor forms.[1] Vecuronium interferes with nicotinic processes in the carotid body and inhibits the chemoreceptor neural response to hypoxia. Vecuronium significantly attenuates the increase in CSNA (DeltaCSNA) in response to hypoxia in the carotid body.[2]
In vivo	Vecuronium has a higher biliary clearance than pancuronium in the rats.[3]

Solubility Information

Solubility	H2O: 4 mg/mL (6.27 mM),Sonication is recommended. Ethanol: 93 mg/mL (145.83 mM),Sonication is recommended. DMSO: 93 mg/mL (145.83 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5681 mL	7.8403 mL	15.6806 mL
5 mM	0.3136 mL	1.5681 mL	3.1361 mL
10 mM	0.1568 mL	0.784 mL	1.5681 mL
50 mM	0.0314 mL	0.1568 mL	0.3136 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Kindler CH, et al. Additive inhibition of nicotinic acetylcholine receptors by corticosteroids and the neuromuscular blocking drug vecuronium. Anesthesiology. 2000 Mar;92(3):821-32.
Igarashi A, et al. Vecuronium directly inhibits hypoxic neurotransmission of the rat carotid body. Anesth Analg. 2002 Jan;94(1):117-22, table of contents.
Upton RA, et al. Renal and biliary elimination of vecuronium (ORG NC 45) and pancuronium in rats. Anesth Analg. 1982 Apr;61(4):313-6.