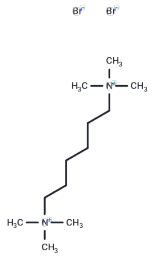
Data Sheet (Cat.No.T0287)

TargetMol

Hexamethonium Bromide

Chemical Properties



CAS No. : 55-97-0

Formula: C12H30Br2N2

Molecular Weight: 362.19

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Hexamethonium Bromide (Hexamethonium Dibromide), a specific antagonist of neuronal-type nicotinic AChR in ganglia, is poorly absorbed from the gastrointestinal tract and does not cross the blood-brain barrier.
Targets(IC50)	Apoptosis,AChR,Dopamine Receptor
In vitro	Hexamethonium Bromide is effective against Ach and carbachol (CCh) on the amplitude of endplate responses of rat omohyoid muscle with EC50 of 300 μM and 100 μM, respectively. Hexamethonium Bromide (50-200 μM) causes an increase in the amplitude of nerve-evoked endplate currents (e.p.cs) recorded in the presence of 0.6 μM tubocurarine. Hexamethonium Bromide is also a weak inhibitor of acetylcholinesterase activity in rat muscle homogenates with EC50 of 1.5 mM. [1] Hexamethonium Bromide (200 μM) decreases the time constant of decay of both endplate currents (e.p.cs) (by ~25%) and miniature endplate currents (m.e.p.cs) (by ~20%) in the rat hemi-diaphragm muscle. At low frequencies of stimulation (0.5-2 Hz), Hexamethonium Bromide (200 μM) increases e.p.c. quantal content by 30-40%. [2]

Solubility Information

Solubility	DMSO: 9 mg/mL (24.85 mM),Sonication is recommended. H2O: 36.2 mg/mL (99.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.76 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.761 mL	13.8049 mL	27.6098 mL
5 mM	0.5522 mL	2.761 mL	5.522 mL
10 mM	0.2761 mL	1.3805 mL	2.761 mL
50 mM	0.0552 mL	0.2761 mL	0.5522 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rang HP, et al. Br J Pharmacol, 1984, 81(3), 519-531.
Tian L, et al. Br J Pharmacol, 1997, 122(6), 1025-1034.
Bowman WC, et al. J Pharm Pharmacol, 1972, 24(10), 762-772.
Kimura T, et al. J Cardiovasc Pharmacol, 1992, 20(6), 870-874.