

Certificate of Analysis

Product Name: Hexamethonium bromide

Catalog No.: 4111

Batch No.: 1

CAS Number: 55-97-0

EC Number: 200-249-7

IUPAC Name: *N,N,N,N',N',N'*-Hexamethylhexamethylenediammonium dibromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{30}Br_2N_2 \cdot \frac{1}{2}H_2O$

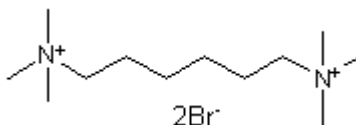
Batch Molecular Weight: 371.2

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	38.83	8.42	7.55
Found	38.84	8.59	7.47

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

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Description:

Nicotinic receptor (nAChR) blocker at autonomic ganglia; prevents nicotine-mediated inhibition of apoptosis. Induces changes in neuronal activity similar to the influences of glutamate in vitro. Inhibits nicotine-mediated induction of XIAP and survivin.

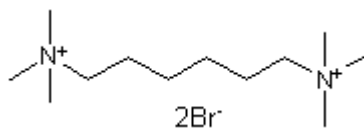
Physical and Chemical Properties:

Batch Molecular Formula: C₁₂H₃₀Br₂N₂·½H₂O

Batch Molecular Weight: 371.2

Physical Appearance: White solid

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

DMSO to 50 mM

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. Our standard recommendations are:

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:

Karavaev et al (2008) The nicotinic receptor blocker hexamethonium alters neuronal responses to glutamate in the medial septal area of the brain of the ground squirrel in vitro. *Neurosci.Behav.Physiol.* **38** 297. PMID: 18264777.

Dasgupta et al (2010) Nicotine inhibits apoptosis induced by chemotherapeutic drugs by up-regulating XIAP and survivin. *Proc.Natl.Acad.Sci.* **103** 6332.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956