

Product Name: MitMAB

Catalog No.: 4224

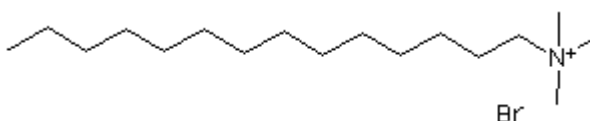
Batch No.: 1

CAS Number: 1119-97-7

IUPAC Name: Tetradecyltrimethylammonium bromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₃₈BrN
Batch Molecular Weight: 336.39
Physical Appearance: White solid
Solubility: water to 100 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	60.7	11.39	4.16
Found	60.95	11.24	4.27

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

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CAS Number: 1119-97-7

IUPAC Name: Tetradecyltrimethylammonium bromide

Description:

Dynamin inhibitor; inhibits the GTPase activity of dynamin I ($K_i = 940$ nM; $IC_{50} = 3.1$ μ M). Targets the dynamin-phospholipid interaction. Inhibits receptor-mediated endocytosis of epidermal growth factor (EGF) in non-neuronal cells; also inhibits synaptic vesicle endocytosis. Displays dynamin I-inhibitory activity similar to OctMAB (Cat. No. 4225).

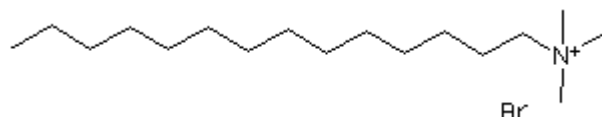
Physical and Chemical Properties:

Batch Molecular Formula: $C_{17}H_{38}BrN$

Batch Molecular Weight: 336.39

Physical Appearance: White solid

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 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:

Hill et al (2004) Long chain amines and long chain ammonium salts as novel inhibitors of dynamin GTPase activity. *Bioorg.Med.Chem.Lett.* **14** 3275. PMID: 15149689.

Quan et al (2007) Myristyl trimethyl ammonium bromide and octadecyl trimethyl ammonium bromide are surface-active small molecule dynamin inhibitors that block endocytosis mediated by dynamin I or dynamin II. *Mol.Pharmacol.* **72** 1425. PMID: 17702890.

de Beco et al (2009) Endocytosis is required for E-cadherin redistribution at mature adherens junctions. *Proc.Natl.Acad.Sci.* **106** 7010.

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