

Dimethyldioctadecylammonium (bromide)

Chemical Properties

CAS No. : 3700-67-2

Formula: C₃₈H₈₀BrN

Molecular Weight: 630.95

Keep away from moisture

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	Dimethyldioctadecylammonium bromide is a synthetic double-chain cationic lipid composed of a positively charged quaternary ammonium headgroup and two long-chain hydrophobic alkyl groups. It is capable of self-assembling into liposomes and nanoparticle systems and is commonly used in gene delivery and vaccine adjuvant development, where it promotes cellular uptake by forming complexes with nucleic acids; it also has applications as a surfactant and emulsifier.
Targets(IC50)	Liposome

Solubility Information

Solubility	Ethanol: 33 mg/mL (52.3 mM),Sonication is recommended. DMSO: 1.6 mg/mL (2.54 mM),Sonication is recommended. DMF: 2 mg/mL (3.17 mM),Sonication is recommended. PBS (pH 7.2): 5 mg/mL (7.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5849 mL	7.9246 mL	15.8491 mL
5 mM	0.317 mL	1.5849 mL	3.1698 mL
10 mM	0.1585 mL	0.7925 mL	1.5849 mL
50 mM	0.0317 mL	0.1585 mL	0.317 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

Ganendren R, et al. In vitro antifungal activities of inhibitors of phospholipases from the fungal pathogen *Cryptococcus neoformans*. *Antimicrob Agents Chemother*. 2004 May;48(5):1561-9.

Ferreira TCS, et al. Effect of DODAB Nano-Sized Cationic Bilayer Fragments against *Leishmania amazonensis*. *Molecules*. 2020 Dec 5;25(23):5741.

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