

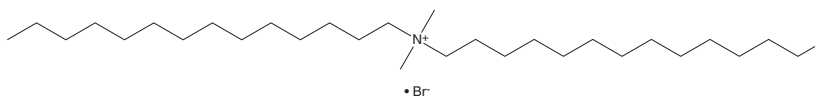
PRODUCT INFORMATION



Dimethyldimyristylammonium (bromide)

Item No. 38870

CAS Registry No.: 68105-02-2
Formal Name: N,N-dimethyl-N-tetradecyl-1-tetradecanaminium, monobromide
Synonym: Dimethylditetradecylammonium
MF: C₃₀H₆₄N • Br
FW: 518.7
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dimethyldimyristylammonium (bromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the dimethyldimyristylammonium (bromide) in the solvent of choice, which should be purged with an inert gas. Dimethyldimyristylammonium (bromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of dimethyldimyristylammonium (bromide) in ethanol is approximately 30 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dimethyldimyristylammonium (bromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. Dimethyldimyristylammonium (bromide) is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Dimethyldimyristylammonium is a cationic lipid that has been used in combination with other lipids in the formation of lipid nanoparticles (LNPs).¹ Administration of LNPs containing dimethyldimyristylammonium and encapsulating mRNA encoding a luciferase reporter increase luminescence in HeLa cells.

Reference

1. Tang, M., Sagawa, A., Inoue, N., *et al.* Efficient mRNA delivery with mRNA lipoplexes prepared using a modified ethanol injection method. *Pharmaceutics* **15**(4), 1141 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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