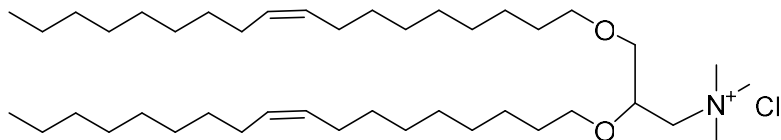


DOTMA

Catalog number: N-1381



Molecular Formula: C₄₂H₈₄NO₂Cl

MW: 670.57

CAS#: 104872-42-6

Alternate Name: 1,2-*di*-O-octadecenyl-3-trimethylammonium propane (chloride salt); 2,3-Bis[(*Z*)-octadec-9-enoyl]oxy}propyl-trimethylazanium chloride.

Solubility: Methanol, ethanol, DMSO, and dimethyl formamide.

Storage and Handling: Dotma is stable for at least one year when stored as a solid, protected from moisture, and light at -20°C. Solutions of Dotma should be stored at -20°C between uses.

Background: Dotma forms stable cationic liposomes in solution and can be used in the cell transfection of DNA, RNA, oligonucleotides, anionic proteins, and small peptides. Dotma increased by at least 1000-fold the activity of an antisense oligonucleotide (ISIS 1570) in human umbilical vein endothelial cells.

References: 1) Hou X. et al (2021). "Lipid nanoparticles for mRNA delivery". *Nat Rev Mater* 6, 1078–1094. <https://doi.org/10.1038/s41578-021-00358-0>. 2) Bennett C.F. et al. (1992) "Cationic lipids enhance cellular uptake and activity of phosphorothioate antisense oligonucleotides." *41* (6) 1023-1033.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

Technical Data Sheet, Rev 1, 5/23/2024 – **For research use only.** Not intended for diagnostic or therapeutic use.