

# PRODUCT INFORMATION

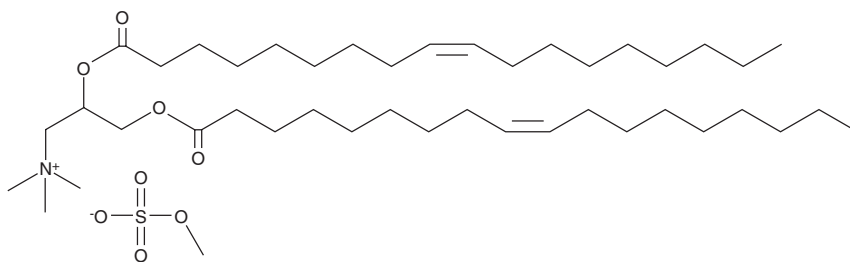


## 1,2-Dioleoyl-3-trimethylammoniumpropane (methyl sulfate)

Item No. 38905

**CAS Registry No.:** 144189-73-1  
**Formal Name:** N,N,N-trimethyl-2,3-bis[[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]-1-propanaminium, monomethyl sulfate

**Synonym:** DOTAP  
**MF:** C<sub>42</sub>H<sub>80</sub>NO<sub>4</sub> • CH<sub>3</sub>SO<sub>4</sub>  
**FW:** 774.2  
**Purity:** ≥98%  
**Supplied as:** A 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

1,2-Dioleoyl-3-trimethylammoniumpropane (DOTAP) (methyl sulfate) is supplied as a solid. A stock solution may be made by dissolving the DOTAP in the solvent of choice, which should be purged with an inert gas. DOTAP is slightly soluble in acetonitrile.

DOTAP is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

DOTAP is a cationic liposome-forming compound used for transfection of DNA, RNA, and other negatively charged molecules into eukaryotic cells. It has been used in the composition of small unilamellar liposomes formulated as gene delivery vectors for gene therapy.<sup>1</sup>

### Reference

1. Xiong, F., Mi, Z., and Gu, N. Cationic liposomes as gene delivery system: Transfection efficiency and new application. *Pharmazie* **66**(3), 158-164 (2011).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
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