

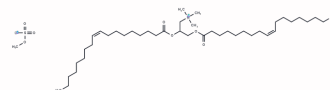
DOTAP methylsulfate

Cat. No.: SN-M-LM295

Chemical Properties

Product Name	DOTAP methylsulfate
Full Name	2,3-bis[[[(Z)-octadec-9-enoyl]oxy]propyl-trimethylazanium;methyl sulfate
Cat. No.	SN-M-LM295
CAS No.	144189-73-1
Molecular Formula	C43H83NO8S
Molecular Weight	774.19
Appearance	Solid
Storage	Keep away from moisture, The compound is unstable in solution. Please use soon,
Shipping	Shipping with blue ice/Shipping at ambient temperature.
Solubility	Ethanol: 80 mg/mL (103.33 mM), Sonication is recommended. The compound is unstable in solution. Please use soon. DMSO: 4 mg/mL (5.17 mM), The compound is unstable in solution. Please use soon.
Purity	98+%

Structure



Biological Description

DOTAP methylsulfate is a cationic lipid reagent and a trimethylammonium cation derivative, with two octadecanoic fatty acid chains in its molecular structure, each containing one unsaturated alkene bond. DOTAP can self-assemble with negatively charged nucleic acids such as DNA via electrostatic interactions to form complexes, which enter cells through electrostatic adsorption and endocytosis. The hydrophobic domain of DOTAP promotes endosomal membrane fusion and facilitates nucleic acid release into the cytoplasm, thereby achieving efficient gene delivery. Currently, DOTAP methylsulfate is widely used in gene therapy, in vitro cell transfection, non-viral vector construction, and related research fields.

Related Products / Keywords

- DOTAP methylsulfate

This product is a research reagent and must not be used for clinical validation or human therapeutic use.