

Product Name: DOPE

Catalog No.: 7175

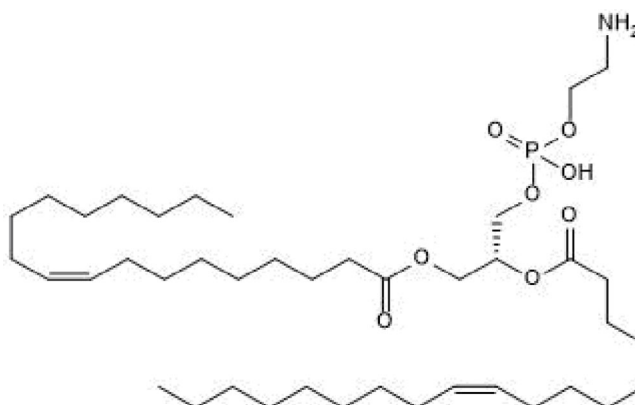
Batch No.: 1

CAS Number: 4004-05-1

IUPAC Name: (9Z)-1,1'-[(1R)-1-[[[(2-Aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl] 9-octadecenoic acid ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₁H₇₈NO₈P
Batch Molecular Weight: 744.05
Physical Appearance: Off-white solid
Solubility: chloroform to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +5.8 (Concentration = 2, Solvent = Chloroform)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.19	10.57	1.88
Found	66.17	10.64	1.97

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

DOPE is a liposome/lipoplex transfection reagent. Enhances liposome and lipoplex transfection efficiency in combination with DA, DOTAP or DC-cholesterol (Cat. No. 7176). Please note: exact ratio for use and transfection efficiency is dependent on cell line used.

Physical and Chemical Properties:

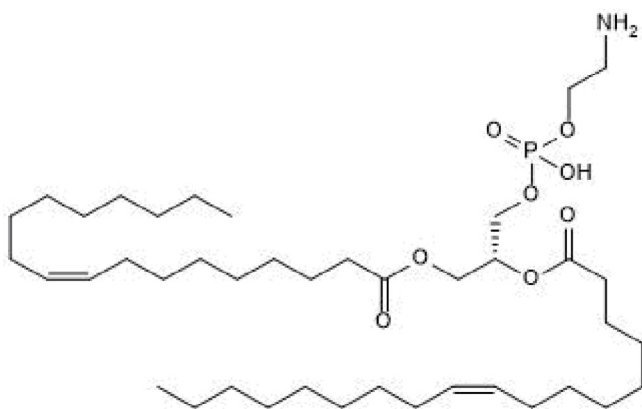
Batch Molecular Formula: C₄₁H₇₈NO₈P

Batch Molecular Weight: 744.05

Physical Appearance: Off-white solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

chloroform to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kim *et al* (2015) DOTAP/DOPE ratio and cell type determine transfection efficiency with DOTAP-liposomes. *Biochim.Biophys.Acta.* **1848** 1996. PMID: 26112463.

Mochizuki *et al* (2013) The role of the helper lipid dioleoylphosphatidylethanolamine (DOPE) for DNA transfection cooperating with a cationic lipid bearing ethylenediamine. *Biochim.Biophys.Acta.* **1828** 412. PMID: 23092705.

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