

**Product Name:** DOPE

**Catalog No.:** 7175

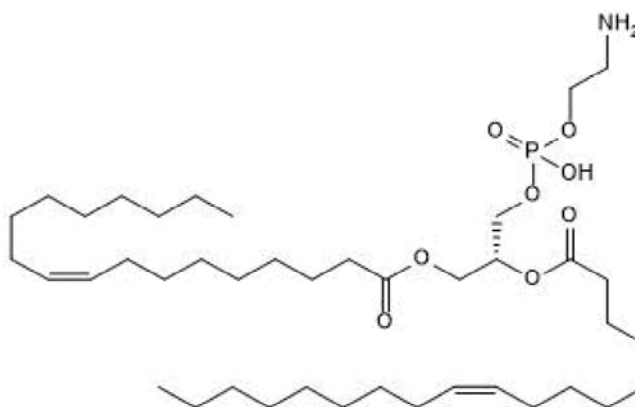
**Batch No.:** 1

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:** C<sub>41</sub>H<sub>78</sub>NO<sub>8</sub>P  
**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 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +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

**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

**Description:**

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:**

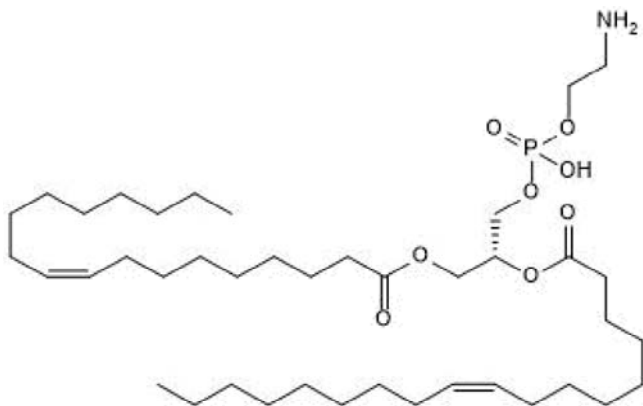
Batch Molecular Formula: C<sub>41</sub>H<sub>78</sub>NO<sub>8</sub>P

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. Our standard recommendations are:

**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.

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956