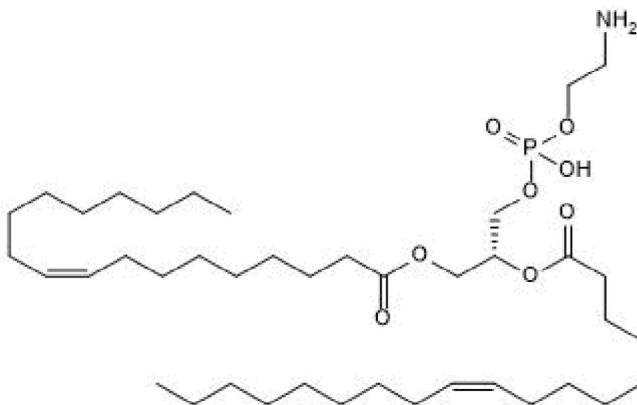


Certificate of Analysiswww.tocris.com**Product Name:** DOPE**Catalog No.:** 7175**Batch No.:** 1

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

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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 Worldwww.tocris.com/distributors

Tel: +1 612 379 2956

Product Information

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

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:

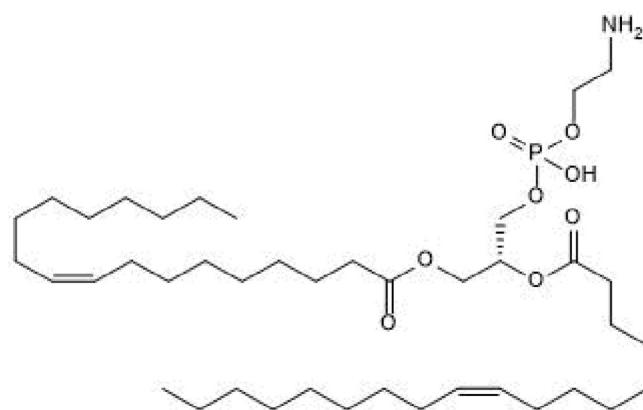
Batch Molecular Formula: C₄₁H₇₈NO₈P

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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bio-techne.com

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techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

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Tel: +86 (21) 52380373

Europe Middle East Africa

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Tel: +1 612 379 2956