

## DOPE

Catalog Number: 26451

### DESCRIPTION

DOPE is a neutral helper phospholipid frequently used as an emulsifier with cationic lipids like DOTAP to form liposomes, lipoplexes, and related delivery systems for non-viral gene delivery. DOPE is sensitive to pH changes, thus inclusion of DOPE in lipid formulations improves DNA transfection efficiency by forming a stable lipid layer that can rapidly fuse with the bilayer of the cell membrane.

### SPECIFICATIONS

CAS Number	4004-05-1
Molecular Weight	744.03g/mol
Appearance	Light yellow or white powder
Storage	-20°C
Molecular Formula	C <sub>41</sub> H <sub>78</sub> NO <sub>8</sub> P
Synonyms	1,2-dioleoyl- <i>sn</i> -glycero-3-phosphoethanolamine, 1,2-DOPE

### PREPARATION

DOPE stock solutions can be prepared by dissolving in an organic solvent of choice. DOPE is soluble in ethanol (40 mg/ml), chloroform (3.3 mg/ml), and slightly soluble in DMSO and aqueous solutions. To enhance the aqueous solubility of DOPE, first dissolve DOP in an organic solvent, then dilute the solution in an aqueous buffer. Once dissolved in an organic solvent, the solution can be stored at -20°C for up to 1 month. If diluting with an aqueous buffer, do not store for longer than 1 day.

