

PRODUCT INFORMATION



1-Stearoyl-2-Oleoyl-*sn*-glycero-3-PE

Item No. 38153

CAS Registry No.: 6418-95-7

Formal Name: 9Z-octadecenoic acid, 1R-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-2-[(1-oxooctadecyl)oxy]ethyl ester

Synonyms: 1-Octadecanoyl-2-(9Z)-Octadecenoyl-*sn*-glycero-3-Phosphatidylethanolamine, 1-Octadecanoyl-2-(9Z)-Octadecenoyl-*sn*-glycero-3-Phosphoethanolamine, 18:0-18:1 PE, PE(18:0/18:1), 1-Stearoyl-2-Oleoyl-*sn*-glycero-3-Phosphoethanolamine, 1,2-SOPE

MF: C₄₁H₈₀NO₈P

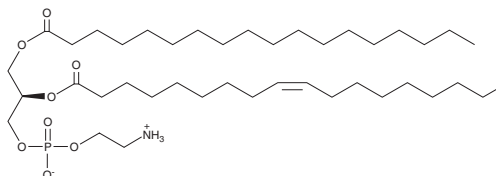
FW: 746.1

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1-Stearoyl-2-oleoyl-*sn*-glycero-3-PE is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-stearoyl-2-oleoyl-*sn*-glycero-3-PE in the solvent of choice, which should be purged with an inert gas. 1-Stearoyl-2-oleoyl-*sn*-glycero-3-PE is soluble in the organic solvent ethanol at a concentration of approximately 30 mg/ml.

Description

1-Stearoyl-2-oleoyl-*sn*-glycero-3-PE is a phospholipid that contains stearic acid (Item No. 10011298) and oleic acid (Item Nos. 90260 | 24659) at the *sn*-1 and *sn*-2 positions, respectively. It has been used in the generation of lipid nanoparticles (LNPs) for *in vitro* delivery of mRNA or nuclear-targeted plasmid DNA.^{1,2}

References

1. Álvarez-Benedicto, E., Farbiak, L., Ramírez, M.M., *et al.* Optimization of phospholipid chemistry for improved lipid nanoparticle (LNP) delivery of messenger RNA (mRNA). *Biomater. Sci.* **10**(2), 549-559 (2022).
2. Tanaka, H., Akita, H., Ishiba, R., *et al.* Neutral biodegradable lipid-envelope-type nanoparticle using vitamin A-Scaffold for nuclear targeting of plasmid DNA. *Biomaterials* **35**(5), 1755-1761 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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