

PRODUCT INFORMATION



DSPE-PEG(2000)-amine (sodium salt)

Item No. 26000

Formal Name: α -[(9R)-6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxo-2-aza-6-phosphanonacos-1-yl]- ω -(2-aminoethoxy)-poly(oxy-1,2-ethanediyl), monosodium salt

Synonyms: 1,2-distearoyl-*sn*-glycero-3-phosphoethanolamine-N-[amino(polyethylene glycol)-2000], 1,2-distearoyl-*sn*-glycero-3-PE-N-[amino(polyethylene glycol)-2000], 1,2-distearoyl-*sn*-glycero-3-phosphatidylethanolamine-N-[amino(polyethylene glycol)-2000], 1,2-DSPE-PEG(2000)-amine

MF: $(C_2H_4O)_n C_{44}H_{86}N_2O_{10}P \cdot Na$

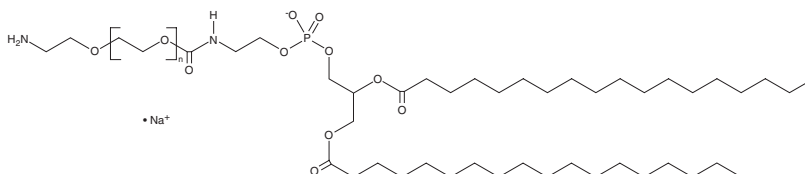
Purity: $\geq 95\%$

Supplied as: A crystalline solid

Storage: $-20^\circ C$

Stability: ≥ 4 years

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



Laboratory Procedures

DSPE-PEG(2000)-amine (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the DSPE-PEG(2000)-amine (sodium salt) in the solvent of choice, which should be purged with an inert gas. DSPE-PEG(2000)-amine (sodium salt) is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of DSPE-PEG(2000)-amine (sodium salt) in these solvents is approximately 20 and 11 mg/ml, respectively.

Description

DSPE-PEG(2000)-amine is a PEGylated derivative of 1,2-distearoyl-*sn*-glycero-3-PE (DSPE; Item No. 15095). It has been used in the synthesis of solid lipid and thermosensitive liposomal nanoparticles for the delivery of anticancer agents.¹⁻³ DSPE-PEG(2000)-amine has also been used in the synthesis of fluorescein isothiocyanate-loaded mesoporous silica nanoparticles for imaging applications.⁴ It can be conjugated to a variety of functional molecules for improved cellular targeting and uptake of DSPE-PEG(2000)-amine-containing nanoparticles.^{4,5}

References

1. Sloat, B.R., Sandoval, M.A., Li, D., *et al.* *Int. J. Pharm.* **409(1-2)**, 278-288 (2011).
2. Abd-Rabou, A.A., Bharali, D.J., and Mousa, S.A. *Pharm. Res.* **35(4)**, 76 (2018).
3. Affram, K., Udofot, O., Singh, M., *et al.* *PLoS One* **12(9)**, e0815116 (2017).
4. Wang, L.-S., Wu, L.-C., Lu, S.-Y., *et al.* *ACS Nano* **4(8)**, 4371-4379 (2010).
5. Wen, X., Wang, K., Zhao, Z., *et al.* *PLoS One* **9(9)**, e106652 (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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