

PRODUCT INFORMATION



DSPE-PEG(2000)-amine

Item No. 26000

CAS Registry No.: 474922-26-4

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

MF: $(C_2H_4O)_n C_{44}H_{87}N_2O_{10}P \cdot NH_3$

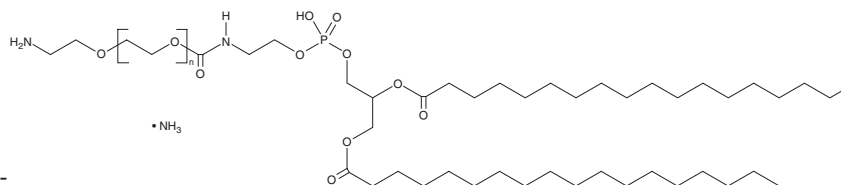
FW: 910.2

Purity: $\geq 95\%$ (NMR)

Supplied as: A crystalline solid

Storage: $-20^\circ C$

Stability: ≥ 2 years



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

Laboratory Procedures

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