

PRODUCT INFORMATION



DSPE-mPEG(2000) (sodium salt)

Item No. 37148

CAS Registry No.: 247925-28-6

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 -methoxy-poly(oxy-1,2-ethanediyl), monosodium salt

Synonyms: 1,2-Dioctadecanoyl-*sn*-glycero-3-Phosphoethanolamine-N-mPEG(2000), 1,2-Distearoyl Phosphatidylethanolamine-N-mPEG(2000), 1,2-Distearoyl-*sn*-glycero-3-Phosphoethanolamine-N-methoxy-Polyethylene Glycol-2000, 1,2-DSPE-mPEG(2000), PE(18:0/18:0)-mPEG(2000), PtdEtn-(1,2-Distearoyl)-N-mPEG(2000)

MF: $(C_2H_4O)_n C_{43}H_{83}NO_{10}P \cdot Na$

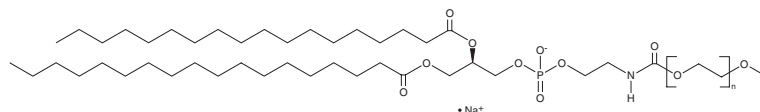
Purity: $\geq 95\%$

Supplied as: A 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-mPEG(2000) (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the DSPE-mPEG(2000) (sodium salt) in the solvent of choice, which should be purged with an inert gas. DSPE-mPEG(2000) (sodium salt) is slightly soluble in dimethyl formamide.

DSPE-mPEG(2000) (sodium salt) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

DSPE-mPEG(2000) is a PEGylated form of 1,2-distearoyl-*sn*-glycero-3-PE (DSPE; Item No. 15095).¹ It has been used in the generation of micelles and in combination with other lipids in the formation of liposomes. Liposomes containing DSPE-mPEG(2000) and encapsulating the DNA topoisomerase inhibitor doxorubicin (Item No. 15007) and the flavonoid quercetin (Item No. 10005169) reduce tumor growth in an MCF-7/adr multidrug-resistant breast cancer mouse xenograft model.

Reference

1. Zhang, J., Luo, Y., Zhao, X., *et al.* Co-delivery of doxorubicin and the traditional Chinese medicine quercetin using biotin-PEG₂₀₀₀-DSPE modified liposomes for the treatment of multidrug resistant breast cancer. *RSC Adv.* **6**(114), 113173-113184 (2016).

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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