

PRODUCT DATA SHEET

1,2-Distearoyl-phosphatidylethanolamine-methyl-polyethyleneglycol conjugate-2000 (Na⁺ salt)

Catalog number: 1439

Common Name: DSPE-MPEG-2000

Source: synthetic

Solubility: chloroform

CAS number: 147867-65-0

Molecular Formula: C₁₃₃H₂₆₃NO₅₅P • Na

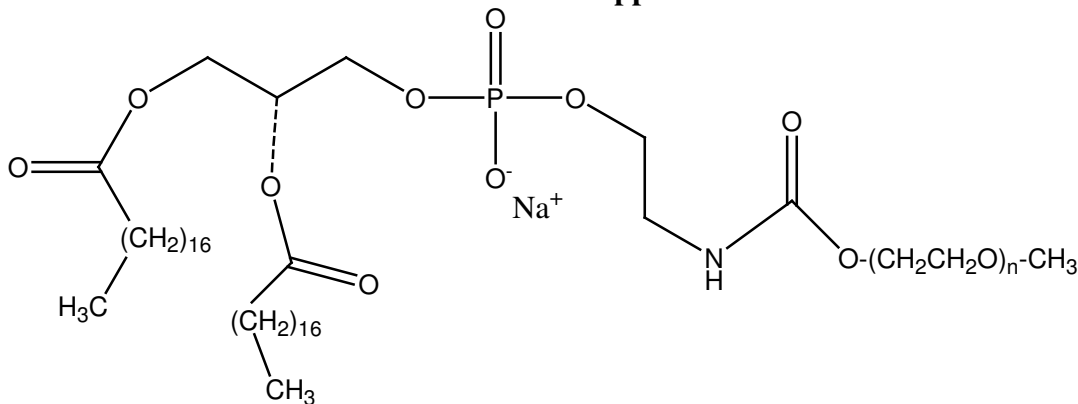
Molecular Weight: 2807

Storage: -20°C

Purity: TLC >98%

TLC System: chloroform/methanol/DI water
(85:15:1 by vol.)

Appearance: solid



Application Notes:

This product has been used for creating micelles that are able to carry drugs with low solubility. DSPE-MPEG-2000 has proven exceptionally useful due to certain characteristics such as good stability, longevity, and ability to accumulate in areas with abnormal vasculature, including tumors^{2,3} which have leaky vasculature. This product can be enhanced by the addition of various groups such as attaching specific targeting ligand molecules, imaging agents or surfactants to further increase the solubility.¹

Selected References:

1. R. Sawant and V. Torchilin "Polymeric micelles: polyethylene glycol-phosphatidylethanolamine (PEG-PE)-based micelles as an example" *Methods of Molecular Biology*, Vol. 624 pp. 131-149, 2010
2. A. Lukyanov, Z. Gao, and V. Torchilin "Micelles from polyethylene glycol/phosphatidylethanolamine conjugates for tumor drug delivery" *Journal of Control Release*, Vol. 91(1-2) pp. 97-102, 2003
3. S. Shaguna et al. "RNAi-based Therapeutics Targeting Survivin and PLK1 for Treatment of Bladder Cancer" *Molecular Therapy*, 2011, doi:10.1038/mt.2011.21

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