Tel: 1(800)388-4221 Fax: 1(917)591-2212 Email: info@nanocs.com

#### **TECHNICAL DATA SHEET**

# DSPE PEG Thiol, MW 1000, 2000, 3400, 5000, 10k, 20k

Catalog Numbers: PG2-DSTH-1k, 2k, 3k, 5k, 10k, 20k.

Synonym: Thiol PEG DSPE, HS PEG DSPE, DSPE PEG SH

### **Description:**

**DSPE PEG Thiol** is one of Nanocs' heterobifunctional phospholipid PEG derivatives that have a DSPE lipid and a thiol group linked through a linear PEG chain. DSPE (1,2-distearoyl-sn-glycero-3-phosphoethanolamine) is an 18 carbon saturated phospholipid with high hydrophobicity. PEG chain between DSPE and thiol, on the other hand, offers good hydrophilicity. Thiol functionalized DSPE PEG can be used to react with many thiol reactive groups such as maleimide, pyridyldisulfide or iodoacetamide. It can also be used to bind DSPE PEG to the surface of gold nanoparticles. Reactions between thiol and its reactive partners allow the attachment of DSPE PEG to the targeted material surface. Pegylation significantly suppresses non-specific binding of charged molecules to the surface of modified materials.

### **Product Structure:**

# **Product Specifications:**

Composition: DSPE PEG thiol, DSPE-PEG-SH.

Appearance: White to off-white solid.

Solubility: >10 mg/mL in hot water, chloroform, ethanol, etc.

Reactive group: Thiol.

# Handling and Use:

**DSPE PEG thiol** should always be kept in low temperature in dry condition. Prepare fresh solution right before use. Avoid frequent thaw and freezing. For more information about using this product, visit **www.nanocs.net**.

#### **Storage Conditions:**

Thiol PEG DSPE should be stored at -20 °C. Desiccate. Re-test material after 6 months.

This product is for research and manufacturing use only and is not intended for use in humans or for diagnostic use.

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