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

TECHNICAL DATA SHEET

DSPE PEG Biotin, MW 600, 1000, 2000, 3400, 5000, 10k, 20k

Catalog Numbers: PG2-BNDS-600, 1k, 2k, 3k, 5k, 10k, 20k.

Synonym: Biotin PEG DSPE

Description:

DSPE PEG Biotin is one of Nanocs' functional phospholipid PEG derivatives that have a biotin and a DSPE phospholipid bridged by a linear PEG linker. DSPE (1,2-distearoyl-sn-glycero-3-phosphoethanolamine) is an 18 carbon phospholipid that is highly hydrophobic. PEG backbone, on the other hand, offers good hydrophilicity and water solubility. **Biotin** is a commonly used bioactive molecule that has high binding affinity toward **avidin** or **streptavidin**. Biotin/streptavidin system has been exploited extensively for protein, nucleic acid and many other biomolecule detection and purification. Biotin modified DSPE PEG can be incorporated into liposome and other nanoparticles and thus it can be used to target and detect avidin or streptavidin conjugated substrates.

Product Structure:

$$C_{17}H_{35} - C - O - C - C_{17}H_{35}$$

$$O - C - C_{17}H_{35}$$

Product Specifications:

Composition: DSPE PEG Biotin.

Appearance: White to off white solid.

Solubility: Soluble in hot water, chloroform.

Functional group: Biotin.

Reactive to: Avidin or streptavidin.

Handling and Use:

DSPE PEG Biotin 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:

DSPE PEG Biotin should be stored at -20 °C. Desiccate. Re-test material in 12 months.

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

The information given in this document is to the best of our knowledge accurate, but no warranty is expressed or implied. It is the user's responsibility to determine the suitability for their own use of the products described herein, and since conditions of use are beyond our control, we disclaim all liability with respect to the use of any material supplied by us. Nothing contained herein shall be construed as a recommendation to use any product or to practice any process in violation of any law or any government regulation.