

DSPE-PEG-Maleimide

DSPE-PEG-maleimide (DSPE-PEG-MAL) is a linear heterobifunctional PEGylation reagent with a DSPE phospholipid and a maleimide. It is a useful self-assembling reagent to prepare PEGylated liposome or micelle while also providing a thiol or cysteine reactive maleimide group. It is often used in targeted drug delivery with the lipid bilayer to improve drug solubility, the PEG to provide stealth property, extend circulation half-life and reduce non-specific protein binding or cell adhesion, and the reactive maleimide to bioconjugate targeting molecules including antibody, aptamer, protein, and peptide.

[Learn More](#)

Product Overview

DSPE-PEG-maleimide is one of the reactive phospholipid PEG reagents that can react with sulfhydryl (thiol, -SH) groups. DSPE (1,2-Distearoyl-sn-Glycerol-3-Phosphoethanolamine) is a saturated 18C phospholipid that is highly hydrophobic. PEG linker (polyethylene glycol), on the other hand, offers good hydrophilicity and water solubility. Maleimide functional DSPE PEG has excellent reactivity towards sulfhydryl/thiol groups derived from various molecules. The reaction between maleimide and thiol proceeds easily at neutral pH.

Product Information

Product Name	DSPE-PEG(2000) Maleimide	DSPE-PEG(5000) Maleimide
Cat No.	PCNZ-003	PCNZ-004
CAS No.	474922-22-0	474922-22-0
Molecular Weight	2941.605 (average MW due to polydispersity of PEG)	5937.179 (average MW due to polydispersity of PEG)
Purity	>99%	>99%
Stability	6 Months	6 Months
Storage	-20°C	-20°C
Chemical Name	1,2-distearoyl-sn-glycero-3-phosphoethanolamine-N-[maleimide(polyethylene glycol)-2000] (ammonium salt)	1,2-distearoyl-sn-glycero-3-phosphoethanolamine-N-[maleimide(polyethylene glycol)-5000] (ammonium salt)

Creative Enzymes also provides other enzyme products for academic or industry research. Please [contact us](#) for any product needs.

[Learn More](#)