

Product Data Sheet

Product Name: DSPE-PEG-DBCO, MW 2000

Cat. No.: GC26720

Chemical Properties

Cas. No.

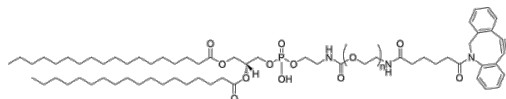
Formula $(C_2H_4O)_nC_{43}H_{86}NO_9P$ M.Wt 2000(Average)

Solubility DMSO : 100 mg/mL Storage $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

DSPE-PEG-DBCO, MW 2000, is a phospholipid-PEG polymer that can be used to form micelles as lipid nanoparticles (LNPs) for drug delivery [1]. DSPE-PEG-DBCO is widely used in click chemistry research to provide a bioorthogonal docking site for the synthesis of modular two-component lymph node-targeted aggregation systems [2]. DSPE-PEG-DBCO is widely used to modify LNP for coupling with T cells, thereby enabling the loading of different drug molecules onto the cells [3].

References:

[1] Oude Blenke E, Sleszynska M, Evers M J W, et al. Strategies for the activation and release of the

Caution: Product has not been fully validated for medical applications. For research use only.

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membranolytic peptide melittin from liposomes using endosomal pH as a trigger[J]. Bioconjugate chemistry, 2017, 28(2): 574-582.

[2] Zhang L, Lai Y, Wang J, et al. Senescent Cell Derived Artificial Vesicle-Based Senolytic Sonovaccine Platform with Augmented Lymph Node Delivery and Antigen Cross-Presentation Efficacy[J]. Advanced Science, 2026: e75770.

[3] Li X, Weller S, Clergeaud G, et al. A versatile method for conjugating lipid nanoparticles on T cells through combination of click chemistry and metabolic glycoengineering[J]. Biotechnology Journal, 2024, 19(1): 2300339.

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