

PRODUCT INFORMATION



DSPE-PEG(5000)-TCO

Item No. 46430

Formal Name: (2R)-3-((((1-(((R,E)-cyclooct-4-en-1-yl)oxy)-1,10-dioxo-5,8-dioxo-2,11-diazatridecan-13-yl)oxy)(hydroxy)phosphoryl)oxy)propane-1,2-diyl distearate

Synonyms: 1,2-Distearoyl-*sn*-glycero-3-Phosphoethanolamine-Polyethylene Glycol-5000-*trans*-cyclooctene, DSPE-PEG5k-TCO

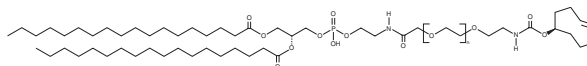
MF: $(C_2H_4O)_n C_{54}H_{101}N_2O_{12}P$

Purity: $\geq 95\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 3 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DSPE-PEG(5000)-TCO is supplied as a solid. A stock solution may be made by dissolving the DSPE-PEG(5000)-TCO in the solvent of choice, which should be purged with an inert gas. DSPE-PEG(5000)-TCO is soluble (≥ 10 mg/ml) in DMSO.

Description

DSPE-PEG(5000)-TCO is a PEGylated derivative of 1,2-distearoyl-*sn*-glycero-3-phosphoethanolamine (1,2-DSPE; Item No. 15095) that contains a *trans*-cyclooctene (TCO) moiety.^{1,2} It has been used in the bioorthogonal ligation of liposomes to macrophages.

References

1. Cheng, J., Gao, R., Lyu, Y., *et al.* Homotransplantation of engineered macrophages with surface-modified nanomedicines for mitigating myocardial ischemia-reperfusion injury. *ACS Nano* **19**(27), 25069-25087 (2025).
2. Tan, H., Li, W., Pang, Z., *et al.* Genetically engineered macrophages co-loaded with CD47 inhibitors synergistically reconstruct efferocytosis and improve cardiac remodeling post myocardial ischemia reperfusion injury. *Adv. Healthc. Mater.* **13**(16), e2303267 (2024).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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