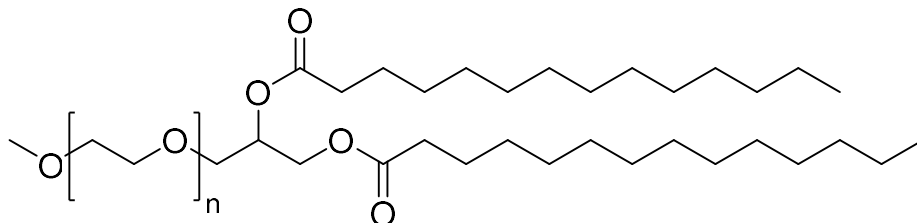


DMG-PEG 2000

Catalog number: N-2014



Molecular Formula: $(C_2H_4O)_n C_{32}H_{62}O_5$

MW: ~2500

CAS#: 160743-62-4

Alternative Names: 1,2-Dimyristoyl-rac-glycero-3-methoxypolyethylene glycol-2000, DMG-PEG(2000)

Solubility: EtOH >10 mg/mL, MeOH >20 mg/mL

Storage and Handling: Store dry at -20 °C or below. Stock solutions should be stored at -20 °C.

Background: DMG-PEG 2000 is a lipid component used in the formulation of lipid nanoparticles (LNPs) for RNA delivery. DMG-PEG 2000 typically makes up a small percentage (0.5-3%) of LNP lipids and its role is to increase the circulatory half-life *in vivo*.

References: 1) Liu, S., Cheng, Q., Wei, T., Yu, X., Johnson, L. T., Farbiak, L., & Siegwart, D. J. (2021). Membrane-destabilizing ionizable phospholipids for organ-selective mRNA delivery and CRISPR-Cas gene editing. *Nature materials*, 20(5), 701-710.

2) Lou, G., Anderluzzi, G., Schmidt, S. T., Woods, S., Gallorini, S., Brazzoli, M., ... & Perrie, Y. (2020). Delivery of self-amplifying mRNA vaccines by cationic lipid nanoparticles: The impact of cationic lipid selection. *Journal of Controlled Release*, 325, 370-379.

3) Shimada, K., Matsuo, S., Sadzuka, Y., Miyagishima, A., Nozawa, Y., Hirota, S., & Sonobe, T. (2000). Determination of incorporated amounts of poly (ethylene glycol)-derivatized lipids in liposomes for the physicochemical characterization of stealth liposomes. *International journal of pharmaceuticals*, 203(1-2), 255-263.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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