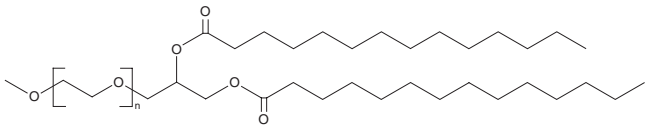
PRODUCT INFORMATION

DMG-PEG(2000)

Item No. 33945

CAS Registry No.: 1397695-86-1
Formal Name: α-[(2R)-2,3-*bis*[(1-oxotetradecyl)oxy]propyl]-ω-methoxy-poly(oxy-1,2-ethanediyl)
Synonyms: 1,2-Dimyristoyl-*rac*-glycero-3-methoxypolyethylene glycol-2000
MF: $(C_2H_4O)_nC_{32}H_{62}O_5$
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

DMG-PEG(2000) is supplied as a crystalline solid. A stock solution may be made by dissolving the DMG-PEG(2000) in the solvent of choice, which should be purged with an inert gas. DMG-PEG(2000) is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of DMG-PEG(2000) in these solvents is approximately 1 mg/ml. DMG-PEG(2000) is also slightly soluble in DMSO.

Description

DMG-PEG(2000) is a lipid excipient that has been used in combination with other lipids in the formation of lipid nanoparticles.[1] Administration of fumarylacetoacetate hydrolase (FAH) mRNA in DMG-PEG(2000)-containing lipid nanoparticles increases survival in a mouse model of hereditary tyrosinemia type 1 (HT-1). Formulations containing DMG-PEG(2000) have been used in the development of lipid nanoparticles for the delivery of mRNA-based vaccines.

Reference

1. Cheng, Q., Wei, T., Jia, Y., *et al.* Dendrimer-based lipid nanoparticles deliver therapeutic FAH mRNA to normalize liver function and extend survival in a mouse model of hepatorenal tyrosinemia type I. *Adv. Mater.* **30(52)**, e1805308 (2018).

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