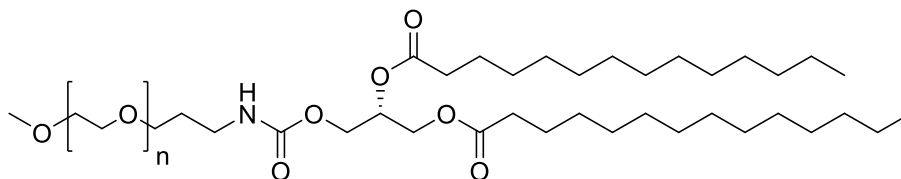


## PEG2000-C-DMG

**Catalog Number:** N-2012



**Molecular Formula:**  $(C_2H_4O)_n C_{36}H_{69}NO_7$

**MW:** 2722.82 (average)

**CAS:** 1443687-74-8

**Alternative Names:** C-DMG-PEG2000, PEG-C14,  $\alpha$ -[3-[[[2,3-bis[(1-oxotetradecyl)oxy]propoxy]carbonyl]amino]propyl]- $\omega$ -methoxy-poly(oxy-1,2-ethanediyl)

**Solubility:** PBS, methanol, ethanol, DMSO.

**Storage and Handling:** PEG2000-C-DMG is stable for at least 1 year when stored as powder at -20°C.

**Background:** Patisiran is a RNAi therapeutic (brand name Onpattro) for the treatment of fatal rare disease polyneuropathy with hereditary transthyretin-mediated (hATTR) amyloidosis. Patisiran inhibits hepatic transthyretin protein synthesis. Lipid nanoparticle (LNP) formulation of Patisiran is composed of siRNA ALN-18328, LNP (DLin-MC3-DMA and PEG2000-C-DMG) and lipid (DSPC and cholesterol). PEG2000-C-DMG provides a hydrophilic steric barrier that inhibits the binding of plasma proteins, including opsonins, and increases the site-specific delivery of siRNA ALN-18328.

**References:** 1) Akin Akinc et al. "A combinatorial library of lipid-like materials for delivery of RNAi therapeutics." Nat. Biotechnol. 27;26(5):561-569. doi: 10.1038/nbt1402  
2) David Adams et al. "Patisiran, an RNAi Therapeutic, for Hereditary Transthyretin Amyloidosis." N. Engl. J. Med. 5;379(1):11-21. doi: 10.1056/NEJMoa1716153  
3) Barbara L Mui et al. "Influence of Polyethylene Glycol Lipid Desorption Rates on Pharmacokinetics and Pharmacodynamics of siRNA Lipid Nanoparticles." Mol. Ther. Nucleic Acids. 2013, 2(12):e139. doi: 10.1038/mtna.2013.66

**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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