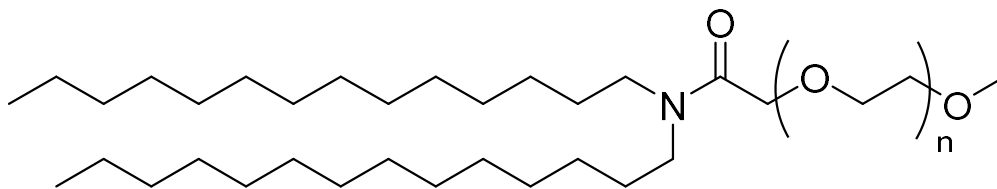


## ALC-0159

**Catalog number:** N-2010



**Molecular Formula:**  $(C_2H_4O)_n C_{31}H_{63}NO_2$

**MW:** ~2330

**CAS#:** 1849616-42-7

**Alternative Names:**

**Solubility:** Chloroform (>10mg/mL), Ethanol (>10mg/mL)

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

**Background:** ALC-0159 is a PEGylated lipid which has been used to form lipid nanoparticles for delivery of RNA. ALC-0159 is one of the components in the BNT162b2 vaccine against SARS-CoV-2 in addition to ALC-0315, DSPC, and cholesterol. This product is for research use only and not for human use.

**References:** 1) R. Tenchov, R. Bird, A. E. Curtze, Q. Zhou (2021) "Lipid Nanoparticles – From Liposomes to mRNA Vaccine Delivery, a Landscape of Research Diversity and Advancement" *ACS Nano*, DOI: 10.1021/acsnano.1c04996.

2) K.H. Moss, P. Popova, *et al.* (2019) "Lipid Nanoparticles for Delivery of Therapeutic RNA Oligonucleotides" *Mol. Pharmaceutics* 16, 2265–2277, DOI: 10.1021/acs.molpharmaceut.8b01290.

3) Y. Duan, A. Dhar, *et al.* (2020) "A brief review on solid lipid nanoparticles: part and parcel of contemporary drug delivery systems" *RSC Adv.*, 10, 26777–26791.

**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.

Technical Data Sheet, Rev 1, 5/23/2024 – **For research use only.** Not intended for diagnostic or therapeutic use.

