

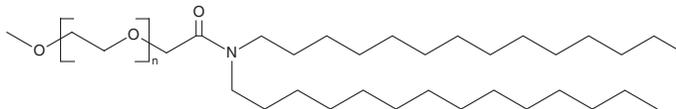
PRODUCT INFORMATION



ALC-0159

Item No. 34336

CAS Registry No.: 1849616-42-7
Formal Name: α -[2-(ditetradecylamino)-2-oxoethyl]- ω -methoxy-poly(oxy-1,2-ethanediyl)
MF: $(C_2H_4O)_n C_{31}H_{63}NO_2$
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

ALC-0159 is supplied as a solid. A stock solution may be made by dissolving the ALC-0159 in the solvent of choice, which should be purged with an inert gas. ALC-0159 is soluble in organic solvents such as ethanol and dimethyl formamide (DMF). ALC-0159 is slightly soluble in DMSO. The solubility of ALC-0159 in ethanol and DMF is approximately 1 and 10 mg/ml, respectively.

ALC-0159 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ALC-0159 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ALC-0159 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ALC-0159 is a lipid excipient.¹ Formulations containing ALC-0159 have been used in the development of lipid nanoparticles (LNPs) for the delivery of mRNA-based vaccines.

Reference

1. Cortés, H., Hernández-Parra, H., Bernal-Chávez, S.A., *et al.* Non-ionic surfactants for stabilization of polymeric nanoparticles for biomedical uses. *Materials (Basel)* **14(12)**, 3197 (2021).

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.

WARRANTY AND LIMITATION OF REMEDY

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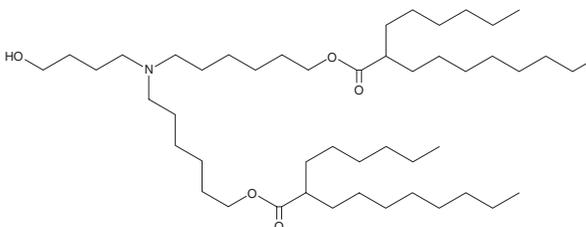
PRODUCT INFORMATION



ALC-0315

Item No. 34337

CAS Registry No.: 2036272-55-4
Formal Name: 2-hexyl-decanoic acid, 1,1'-[[[4-hydroxybutyl]imino]di-6,1-hexanediy] ester
MF: C₄₈H₉₅NO₅
FW: 766.3
Purity: ≥96%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

ALC-0315 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as chloroform purged with an inert gas can be used. The solubility of ALC-0315 in chloroform is approximately 50 mg/ml.

Description

ALC-0315 is an ionizable cationic amino lipid that has been used in combination with other lipids in the formation of lipid nanoparticles (LNPs).¹ Administration of severe acute respiratory coronavirus 2 (SARS-CoV-2) mRNA in ALC-0315-containing LNPs induces the production of IgG that binds to the SARS-CoV-2 receptor-binding domain (RBD) in rhesus macaques, with a boost in antigen-specific IgG geometric mean titers (GMT) seven and 14 days after a second dose. Formulations containing ALC-0315 have been used in the development of LNPs for the delivery of mRNA-based vaccines.

Reference

1. Vogel, A.B., Kanevsky, I., Che, Y., *et al.* BNT162b vaccines protect rhesus macaques from SARS-CoV-2. *Nature* **592(7853)**, 283-289 (2021).

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