

Search

An ionizable amino lipid

Product Categories

PRODUCT TYPE

Biochemicals (18.352) —
Lipids (3.349)

RESEARCH AREA

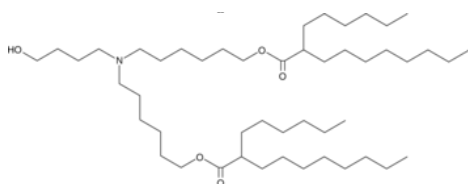
Infectious Disease (2.462) —
Viral Diseases (796) —
Coronaviruses (178)
Immunology & Inflammation (5.312) —
Pulmonary Diseases (528) —
COVID-19 (150)
Adaptive Immunity (724)
Lipid Biochemistry (3.730) —
Lipid-Based Drug Delivery (130) —
Cationic Lipids (12)

References & Product Citations

Product Description
References1. Vogel, A.B., Kanevsky, I., Che, Y., *et al.* BNT162b vaccines protect rhesus macaques from SARS-CoV-2. *Nature* **592(7853)**, 283-289 (2021).

ALC-0315

Item No. 34337

[Download Product Insert \(PDF\)](#)[Download Safety Data Sheet \(SDS\) \(PDF\)](#)

25 mg

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50 mg

[Ready to ship](#)

100 mg

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BULK & CUSTOM

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Product Relationships

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Technical Information

Formal Name	2-hexyl-decanoic acid, 1,1'-[[[4-hydroxybutyl]imino]di-6,1-hexanediy] ester
CAS Number	2036272-55-4
Molecular Formula	C ₄₈ H ₉₅ NO ₅
Formula Weight	766.3
Purity	≥98%
Formulation	A solution in ethanol
Solubility	Chloroform: 50 mg/ml
	(Learn about Variance in Solubility)
SMILES	OCCCCN(CCCCCCOC(C(CCCCC)CCCCC)=O)CCCCCOC(C(CCCCC)CCCCC)=O
InChi Code	InChI=1S/C48H95NO5/c1-5-9-13-17-19-27-37-45(35-25-15-11-7-3)47(51)53-43-33-23-21-29-39-49(41-31-32-42-50)40-30-22-24-34-44-54-48(52)46(36-26-16-12-8-4)38-28-20-18-14-10-6-2/h45-46,50H,5-44H2,1-4H3/QGWBEEEXHOVFQS-UHFFFAOYSA-N
InChi Key	

Shipping & Storage Information

Storage	-20°C
Shipping	Wet ice in continental US; may vary elsewhere
Stability	≥ 1 year

Certificates of Analysis & Batch Specific Data

Lipid Resource Center
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Product Description

ALC-0315 is an ionizable amino lipid that has been used in combination with other lipids in the formation of lipid nanoparticles.¹ Administration of severe acute respiratory coronavirus 2 (SARS-CoV-2) mRNA in ALC-0315-containing lipid nanoparticles 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 lipid nanoparticles for the delivery of mRNA-based vaccines.

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[DC-Chol \(hydrochloride\)](#)

[1,2-Distearoyl-sn-glycero-3-PC](#)



WARNING This product is **not** for human or veterinary use.

Technical Support & Resources

Information provided in the product description is from published literature. Due to the nature of scientific experimentation, your results (e.g., selectivity and effective concentrations) or specific application for this product may differ. If you have questions about how this product fits your application, please contact our technical support staff.

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