

PRODUCT INFORMATION



IR-117-17

Item No. 40420

CAS Registry No.: 2940241-38-1

Formal Name: 5-(((3-(dibutylamino)propyl)amino)methyl)-6-hydroxyundecane-1,11-diyl (9Z,9'Z,12Z,12'Z)-bis(octadeca-9,12-dienoate)

Synonym: A10-LIN

MF: $C_{59}H_{110}N_2O_5$

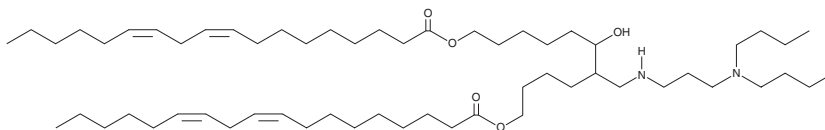
FW: 927.5

Purity: $\geq 95\%$

Supplied as: A 25 mg/ml 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

IR-117-17 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, which should be purged with an inert gas. IR-117-17 is soluble in chloroform and ethanol.

Description

IR-117-17 is an ionizable cationic and biodegradable amino lipid.¹ It has been used in the generation of lipid nanoparticles (LNPs). Nebulized administration of LNPs containing IR-117-17 and the cationic lipid 1,2-dioleoyl-2-trimethylammoniumpropane (1,2-DOTAP; Item No. 15110), among other components, and encapsulating reporter mRNA induce luciferase luminescence in the lung and nasal passages in mice. Nebulized administration of the same LNP formulation but encapsulating Cre mRNA induces the expression of Cre in cells of the large and small airways, as well as alveolar macrophages and epithelial cells, in Ai14 mice engineered to express the fluorescent protein tdTomato upon translation of Cre.

Reference

1. Jiang, A.Y., Witten, J., Raji, I.O., *et al.* Combinatorial development of nebulized mRNA delivery formulations for the lungs. *Nat. Nanotechnol.* (2023).

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.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM