

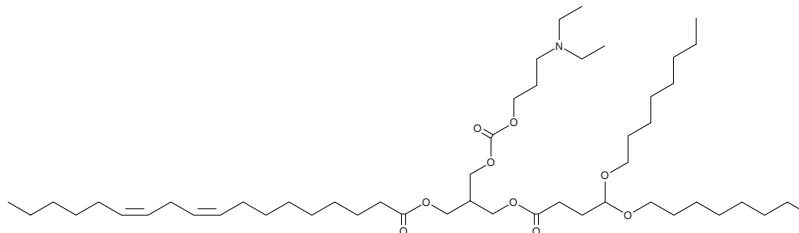
PRODUCT INFORMATION



LP-01

Item No. 37278

CAS Registry No.: 1799316-64-5
Formal Name: 9Z,12Z-octadecadienoic acid, 3-[4,4-bis(octyloxy)-1-oxobutoxy]-2-[[[3-(diethylamino)propoxy]carbonyl]oxy]methyl]propyl ester
Synonym: CIN-16645
MF: C₅₀H₉₃NO₉
FW: 852.3
Purity: ≥95%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

LP-01 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, dichloromethane, and dimethyl formamide purged with an inert gas can be used.

Description

LP-01 is an ionizable cationic lipid (pKa = ~6.1).¹ It has been used in the generation of lipid nanoparticles (LNPs) for the delivery of single-guide RNA (sgRNA) and mRNA *in vitro* and *in vivo*.^{1,2} LNPs containing LP-01 and encapsulating both Cas9 mRNA and modified sgRNA for the transport protein transthyretin (Ttr) induce gene editing in liver cells in mice in a dose-dependent manner resulting in reduced serum Ttr levels for at least 12 months.¹ Subretinal administration of LNPs containing LP-01 and encapsulating both Cas9 mRNA and sgRNA targeting the loxP stop codon induce retinal gene editing in Ai9 mice.²

Reference

1. Finn, J.D., Smith, A.R., Patel, M.C., *et al.* A single administration of CRISPR/Cas9 lipid nanoparticles achieves robust and persistent *in vivo* genome editing. *Cell Rep.* **22(9)**, 2227-2235 (2018).
2. Eygeris, Y., Henderson, M.I., Curtis, A.G., *et al.* Preformed vesicle approach to LNP manufacturing enhances retinal mRNA delivery. *Small* e2400815 (2024).

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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