

Product Data Sheet

Product Name: Lipid N2-3L

Cat. No.: GC92067

Chemical Properties

Cas. No. 2924606-55-1

Chemical Name 9Z-octadecenoic acid, 3-[2-[(2-hexyl-1-oxodecyl)oxy]ethyl]-14-hydroxy-12-(2-hydroxyethyl)-7-oxo-6-oxa-3,8,12-triazatetradec-1-yl ester

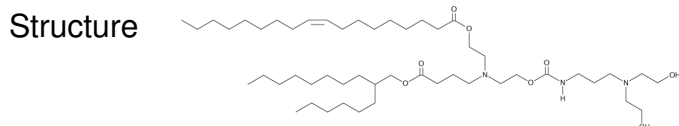
SMILES O=C(CCCCCC/C=C\CCCCCCCC)OCCN(CCOC(NCCCN(CCO)CCO)=O)CCOC(C(CCCCC)CCCCC)=O

Formula $C_{48}H_{93}N_3O_8$ M.Wt 840.3

Solubility DMSO: Soluble: ≥ 10 mg/ml, Ethanol: Soluble: ≥ 10 mg/ml Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.



Background

Lipid N2-3L is an ionizable cationic lipid ($pK_a = 8.99$) that has been used in the generation of supramolecular lipid nanoparticles (SMLNPs) encapsulating mRNA for use *in vitro* and *in vivo*.¹ SMLNPs containing lipid N2-3L and encapsulating a luciferase reporter accumulate at the site of injection and in the draining lymph nodes of mice. Lipid N2-3L-containing SMLNPs encapsulating ovalbumin mRNA and the toll-like receptor 7/8 (TLR7/8) agonist R-848 as an adjuvant promote dendritic cell maturation and antigen presentation, reduce tumor volume, and increase survival in an MC-38-OVA murine model of colon cancer.

References:

[1]. Qi, S., Zhang, X., Yu, X., et al. Supramolecular lipid nanoparticles based on host-guest

Caution: Product has not been fully validated for medical applications. For research use only.

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recognition: A new generation delivery system of mrna vaccines for cancer immunotherapyAdv.
Mater.36(23)e2311574(2024).

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