

## N2-3L

## Catalog Number: N-1034

Molecular Formula:  $C_{48}H_{93}N_3O_8$ 

**MW:** 840.29

CAS: 2924606-55-1

**Alternative Names:** 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

Solubility: methanol, ethanol, DMSO.

**Storage and Handling:** N2-3L is stable for at least 1 year when stored as oil at -20°C. Stock solutions of N2-3L should be stored at -20°C between uses.

**Background**: A novel supramolecular lipid nanoparticle (SMLNP) delivery platform has been developed, consisting of an ionizable lipid (N2-3L) for delivering tumor antigen mRNA, and a β-cyclodextrin (β-CD)-modified ionizable lipid (Lip-CD) for encapsulating the Toll-like receptor 7/8 (TLR7/8) agonist R848. The combination of the mRNA vaccine and R848 significantly enhanced dendritic cell maturation and antigen presentation, resulting in superior antitumor efficacy *in vivo*.

**References:** 1) Shaolong Qi et al. "Supramolecular Lipid Nanoparticles Based on Host-Guest Recognition: A New Generation Delivery System of mRNA Vaccines For Cancer Immunotherapy." Adv. Mater. 2024, 2311574. doi: 10.1002/adma.202311574

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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