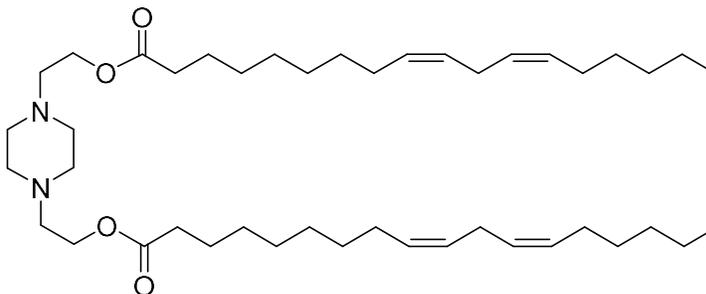


AA3-DLin

Catalog number: N-1003



Molecular Formula: $C_{44}H_{78}N_2O_4$

MW: 699.12

CAS: 2832061-33-1

Alternative Names: Piperazine-1,4-diylbis(ethane-2,1-diyl) (9Z,9'Z,12Z,12'Z)-bis(octadeca-9,12-dienoate)

Solubility: chloroform, ethyl acetate, ethanol

Storage and Handling: Store dry at $-20\text{ }^{\circ}\text{C}$ or below. Stock solutions should be stored at $-20\text{ }^{\circ}\text{C}$.

Background: AA3-DLin is an ionizable lipid used in generating lipid nanoparticles (LNPs) for RNA delivery. Unlike LNPs formulated with other ionizable lipids, AA3-DLin LNPs performed best with higher proportions of phospholipid and lower cholesterol (40:40:25:0.5 AA3-DLin/DOPE/cholesterol/DMG-PEG). AA3-DLin containing LNPs were able to deliver full-length SARS-COV2 spike protein mRNA to BALB/c mice and generate a strong immune response.

References: Zhongyu Li, Xue-Qing Zhang, William Ho, Fengqiao Li, Mingzhu Gao, Xin Bai, and Xiaoyang Xu *ACS Nano* **2022** *16* (11), 18936-18950, DOI: 10.1021/acsnano.2c07822.

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.

Technical Data Sheet, Rev 1, 03-01-23 – For research use only. Not intended for diagnostic or therapeutic use.

