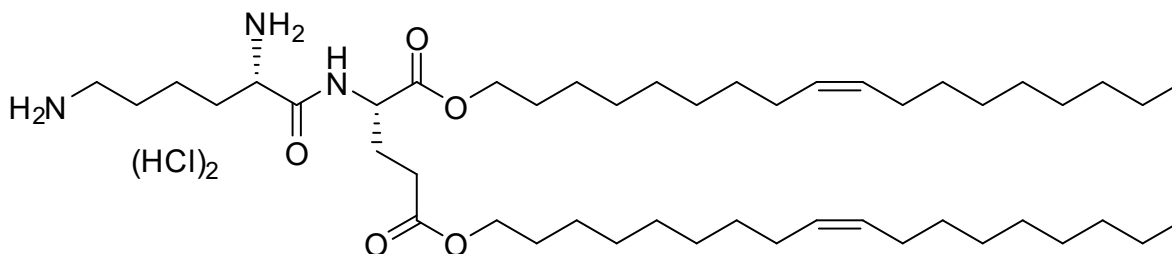


Lipid OA2

Catalog number: N-1002



Molecular Formula: C₄₇H₉₁Cl₂N₃O₅

MW: 849.16

CAS#: 1401620-16-3

Alternative Names: Di((Z)-octadec-9-en-1-yl) L-lysyl-L-glutamate, hydrochloride salt

Solubility: chloroform (>5 mg/mL), methanol (>10 mg/mL)

Storage and Handling: Store dry at -20 °C or below. Stock solutions should be stored at -20 °C.

Background: Lipid OA2 is an ionizable lipid which can form single component lipid nanoparticles (LNPs) for delivery of RNA. Similar to lipid-based transfection reagents like Lipofectamine™, pre-formed OA2 vesicles are incubated with RNA then the mixture is directly added cells. OA2 LNPs delivered siRNA to downregulate cytokine signaling 1 (SOCS1) in mouse bone marrow dendritic cells. These SOCS downregulated DCs were used as a vaccine which reduced tumor size in a B16-OVA mouse model.

References: Z. Yu, M. Wu, Y. Huang, *et al.* "Single-component lipid nanoparticles for engineering SOCS1 gene-silenced dendritic cells to boost tumor immunotherapy" *Biomater. Sci.*, 2023, 11, 263. DOI: 10.1039/d2bm01549h.

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, 5/20/2024 – **For research use only.** Not intended for diagnostic or therapeutic use.

