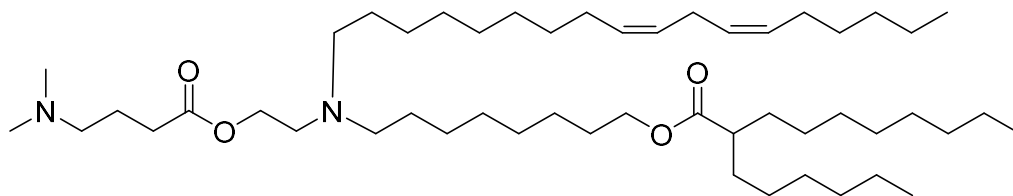


Lipid 15

Catalog number: N-1033



Molecular Formula: $C_{50}H_{96}N_2O_4$

MW: 789.33

CAS: 2588111-36-6

Alternate Name: 8-((2-((4-(dimethylamino)butanoyl)oxy)ethyl)((9Z,12Z)-octadeca-9,12-dien-1-yl)amino)octyl 2-hexyldecanoate

Solubility: Methanol, ethanol, DMSO.

Storage and Handling: Lipid 15 is stable for at least 1 year when stored as an oil, protected from moisture, and light at -20°C. Solutions of Lipid 15 should be stored at -20°C between uses.

Background: Lipid 15 is an ionizable lipid used in the formulation of lipid nanoparticles (LNPs) to facilitate the delivery of mRNA and protein expression. LNPs formulated with Lipid 15 delivered SARS-CoV-2 human Fc-conjugated receptor-binding domain (RBD-hFc) mRNA and demonstrated potential as a COVID 19 vaccine. In addition, LNPs prepared with Lipid 15 and higher amount of DSPC (30%) demonstrated targeting towards the colon in a dextran sodium sulfate (DSS)-colitis mouse model.

References: 1) Elia, Uri et al. "Design of SARS-CoV-2 hFc-Conjugated Receptor-Binding Domain mRNA Vaccine Delivered via Lipid Nanoparticles." *ACS Nano* (2021), 15(6), 9627-9637. DOI: 10.1021/acsnano.0c10180
2) Rampado, R., et al. "Lipid Nanoparticles with Fine-Tuned Composition Show Enhanced Colon Targeting as a Platform for mRNA Therapeutics" *Adv. Sci.* (2024), 2408744. DOI: 10.1002/adv.202408744

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, 8/8/2025 – **For research use only.** Not intended for diagnostic or therapeutic use.

