

Echelon Biosciences Inc.

93-0170

Catalog number: N-1170

Molecular Formula: C₄₄H₈₃N₃O₆

MW: 750.16

CAS: 2227214-78-8

Alternative Names: bis(2-(tetradecyloxy)ethyl) 3,3'-((3-(1H-imidazol-1-yl)propyl)azanediyl)dipropionate

Solubility: ~5mg/mL in methanol or ethanol

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

Background: 93-0170 is an ionizable lipid used in lipid nanoparticles(LNPs). LNP compositions have proven effective as transport vehicles into cells and/or intracellular compartments for biologically active substances such as small molecule drugs, proteins and nucleic acids.

References:

- 1) Zhao X, Chen J, Qiu M, Li Y, Glass Z, Xu Q. (2020) "Imidazole-Based Synthetic Lipidoids for In Vivo mRNA Delivery into Primary T Lymphocytes." *Angew Chem Int Ed Engl.* 59(45):20083-20089. doi: 10.1002/anie.202008082.
- 2) Li Y, Yang T, Yu Y, Shi N, Yang L, Glass Z, Bolinger J, Finkel IJ, Li W, Xu Q. (2018) "Combinatorial library of chalcogen-containing lipidoids for intracellular delivery of genome-editing proteins." *Biomaterials.* 178:652-662. doi: 10.1016/j.biomaterials.2018.03.011.
- 3) Chen J, Qiu M, Ye Z, Nyalile T, Li Y, Glass Z, Zhao X, Yang L, Chen J, Xu Q. (2021) "In situ cancer vaccination using lipidoid nanoparticles." *Sci Adv.* 7(19):eabf1244. doi: 10.1126/sciadv.abf1244.

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, 06-06-22 – For research use only. Not intended for diagnostic or therapeutic use.



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