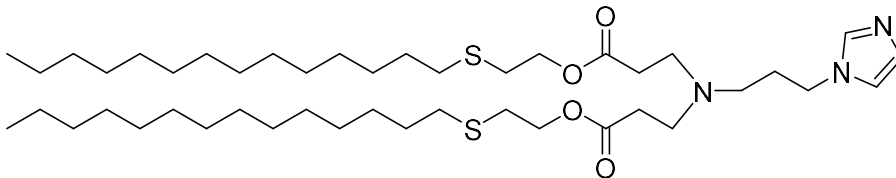


93-O17S

Catalog number: N-1175



Molecular Formula: C₄₄H₈₃N₃O₄S₂

MW: 782.29

CAS#: 2227008-67-3

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

Solubility: Ethanol, chloroform, Ethyl Acetate

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

Background: 93-O17S is a lipidoid used for generating lipid nanoparticle to deliver RNA, peptides, and nucleotides. 93-O17S LNPs were able to deliver Cre recombinase mRNA in mice. In addition, LNPs were able to deliver the Cre recombinase protein and Cas9: single-guide RNA into cells for genome editing. 93-O17S LNPs were used to deliver the STING pathway agonist 2'3'-Cyclic GMP-AMP (cGAMP) when injected into B16F10 tumors in mice which has potential as an *in situ* cancer vaccine.

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.

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