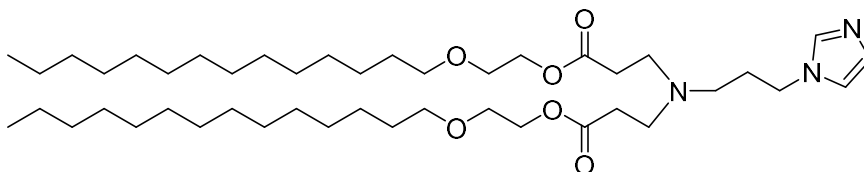


93-O170

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: ~5 mg/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-O170 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.

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