

Lipid 8-014B

Catalog Number: N-1036

Molecular Formula: $C_{37}H_{74}N_2O_6S_4$

MW: 771.25

CAS: 1624618-04-7

Alternative Names: N-[3-[Bis(2-hydroxyethyl)amino]propyl]-N-[3-[2-(decyldithio)ethoxy]-3-oxopropyl]-β-alanine 2-(decyldithio)ethyl ester, bis(2-(decyldisulfanyl)ethyl) 3,3'-((3-(bis(2-hydroxyethyl)amino)propyl) azanediyl)dipropionate

Solubility: methanol, ethanol, DMSO.

Storage and Handling: Lipid 8-O14B is stable for at least 1 year when stored as oil at -20°C. Stock solutions of Lipid 8-O14B should be stored at -20°C between uses.

Background:

Lipid 8-O14B, a novel bioreducible ionizable lipid, was developed to enhance the efficiency of protein delivery and genome editing. The presence of the disulfide bond in Lipid 8-O14B promotes endosomal escape and facilitates cargo release following lipid degradation within the reductive intracellular environment.

References: 1) Ming Wang et al. "Efficient delivery of genome-editing proteins using bioreducible lipid nanoparticles". Proc. Natl Acad. Sci. USA,113 (11) 2868-2873 (2016) DOI: 10.1073/pnas.1520244113

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, 11072025 - For research use only. Not intended for diagnostic or therapeutic use.



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