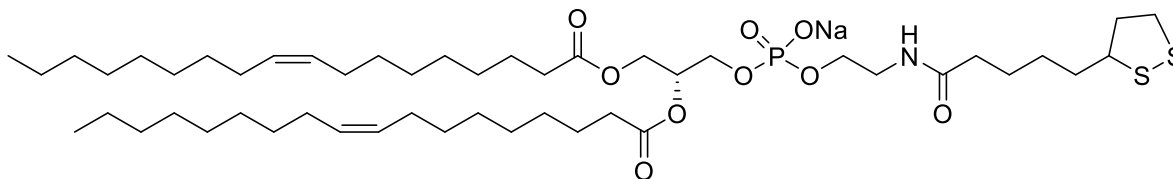


DOPE-Lipoic Acid (S-DOPE)

Catalog Number: L-2310



Molecular Formula: $C_{49}H_{89}NO_9PS_2Na$

MW: 954.33

CAS: N/A

Alternative Names: sodium 2-(5-(1,2-dithiolan-3-yl)pentanamido)ethyl ((R)-2,3-bis(oleoyloxy)propyl) phosphate

Solubility: Methanol, DMSO.

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

Background: Lipid nanoparticles (LNP) facilitate the delivery of mRNA. DOPE-lipoic acid (S-DOP) LNP showed enhanced intracellular mRNA delivery through the dynamic covalent disulfide-thiol exchange reaction with cell surface thiols.

References: 1) Zhijie lian et al. "Breaking Endosomal Barriers: Thiol-Mediated Uptake Lipid Nanoparticles for Efficient mRNA Vaccine Delivery" J. Am. Chem. Soc. 2025 Jul 22. doi: 10.1021/jacs.5c05367.

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.

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