

## ZA3-Ep10

Catalog number: N-1013

Molecular Formula:  $C_{66}H_{138}N_6O_9S$

MW: 1191.92

CAS: 2090299-48-0

Alternative Names: 14-(2-(bis(2-hydroxydecyl)amino)ethyl)-19-hydroxy-11,17-bis(2-hydroxydecyl)-4,4-dimethyl-8-oxo-4,7,11,14,17-pentaazaheptacosan-4-ium-1-sulfonate

Solubility: ~ 5mg/mL in Methanol

Storage and Handling: Store Dry at  $-20^{\circ}C$ , Stock solution should be stored frozen ( $-20^{\circ}C$  or below).

**Background:** ZA3-Ep10 is a zwitterionic amino lipid (ZAL) that uniquely able to deliver long RNAs including Cas mRNA and sgRNA. ZAL nanoparticles delivery of sgRNA enables permanent DNA editing with an indefinitely sustained decrease in protein expression. ZNP delivery of mRNA results in high protein expression at low doses in vitro and in vivo. ZNPs provide a chemical guide for rational design of long RNA carrier, and represent a promising step towards improving the safety and utility of gene editing.

### References:

Jason B. Miller et al, "Non-viral CRISPR/Cas gene editing in vitro and in vivo enabled by synthetic nanoparticle co-delivery of Cas mRNA and sgRNA" *Angew Chem Int Ed Engl*, 2017, 56(4): 1059-1063.

**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.

