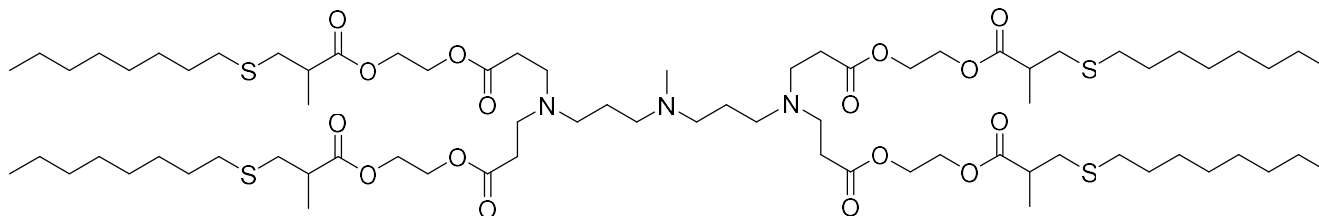


## 4A3-SC8

**Catalog number:** N-1438



**Molecular Formula:**  $C_{75}H_{139}N_3O_{16}S_4$

**MW:** 1467.18

**CAS#:** 1857340-78-3

**Solubility:** ethanol, chloroform

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

**Background:** 4A3-SC8 is an ionizable lipid dendrimer used in generating lipid nanoparticles (LNPs) for RNA delivery. Incorporation of differently charged lipids (DODAP, DOTAP, or PA) into 4A3-SC8 LNPs allow for selective delivery of RNA to the liver, lungs, or spleen.

**References:** 1) Wang, X., Liu, S., Sun, Y. *et al.* Preparation of selective organ-targeting (SORT) lipid nanoparticles (LNPs) using multiple technical methods for tissue-specific mRNA delivery. *Nat Protoc* **18**, 265–291 (2023). <https://doi.org/10.1038/s41596-022-00755-x>

2) Cheng, Q., Wei, T., Farbiak, L. *et al.* Selective organ targeting (SORT) nanoparticles for tissue-specific mRNA delivery and CRISPR–Cas gene editing. *Nat. Nanotechnol.* **15**, 313–320 (2020). <https://doi.org/10.1038/s41565-020-0669-6>

3) Wei, T., Cheng, Q., Min, YL. *et al.* Systemic nanoparticle delivery of CRISPR-Cas9 ribonucleoproteins for effective tissue specific genome editing. *Nat Commun* **11**, 3232 (2020). <https://doi.org/10.1038/s41467-020-17029-3>

**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, 4/26/24– **For research use only.** Not intended for diagnostic or therapeutic use.

