

PRODUCT INFORMATION



4A3-SCC-10

Item No. 41276

CAS Registry No.: 3082361-42-7
Formal Name: ((methylazanediyil)bis(propane-3,1-diyl))
bis(8,14-dioxo-7,15-dioxa-3,4,18,19-
tetrathia-11-azahenicosane-11,1,21-triyl)
tetrakis(3-(decylthio)-2-methylpropanoate)

MF: C₉₁H₁₇₁N₃O₁₆S₁₂

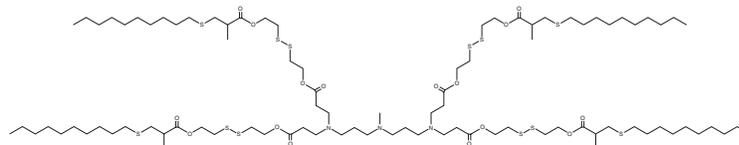
FW: 1,948.1

Purity: ≥90%

Supplied as: A 10 mg/ml solution in ethanol

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

4A3-SCC-10 is a disulfide bond-containing biodegradable ionizable lipid ($pK_a = 6.22$) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vitro* and *in vivo*.¹ LNPs containing 4A3-SCC-10 and encapsulating a Cy5-RNA reporter have improved endosomal escape ability over Cy5-RNA-encapsulated LNPs containing 4A3-SC-10, which does not contain disulfide bonds, in HeLa cells. LNPs containing 4A3-SCC-10 and encapsulating an mRNA luciferase reporter selectively accumulate in mouse liver after intravenous administration.

Reference

1. Chen, Z., Tian, Y., Yang, J., *et al.* Modular design of biodegradable ionizable lipids for improved mRNA delivery and precise cancer metastasis delineation *in vivo*. *J. Am. Chem. Soc.* **145(44)**, 24302-24314 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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