

Product Data Sheet

Product Name: Q1-SM-102 (iodide)

Cat. No.: GC92068

Chemical Properties

Cas. No.

Chemical Name 8-(heptadecan-9-yloxy)-N-(2-hydroxyethyl)-N-methyl-8-oxo-N-(6-oxo-6-(undecyloxy)hexyl)octan-1-aminium, monoiodide

SMILES OCC[N+](CCCCCCCC(OC(CCCCCCCC)CCCCCCC)=O)(C)CCCCC(OCCCCCCCCCCC)=O.[I-]

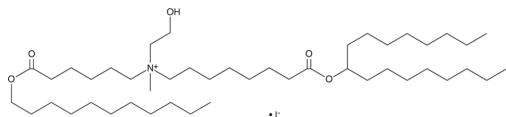
Formula $C_{45}H_{90}NO_5 \cdot I$ M.Wt 852.1

Solubility Chloroform: Sparingly Soluble: 1-10 mg/ml Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Q₁-SM-102 is a cationic quaternary ammonium lipid derivative of the ionizable cationic lipid SM-102 that has been used in the generation of lipid nanoparticles (LNPs) for use *in vivo*.¹ LNPs containing Q₁-SM-102 and SM-102 as a cationic lipid pair (CLP) and encapsulating mRNA encoding a luciferase reporter induce luciferase expression in the lungs and spleen in mice.

References:

[1]. Zeng, G., He, Z., Yang, H., et al. Cationic lipid pairs enhance liver-to-lung tropism of lipid nanoparticles for *in vivo* mRNA delivery ACS Appl. Mater. Interfaces 16(20)25698-25709(2024).

Caution: Product has not been fully validated for medical applications. For research use only.

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