

PRODUCT INFORMATION



Q₁-SM-102 (iodide)

Item No. 41239

CAS Registry No.: 3079716-72-3
Formal Name: N-(2-hydroxyethyl)-N-methyl-8-[(1-octylnonyl)oxy]-8-oxo-N-[6-oxo-6-(undecyloxy)hexyl]-1-octanaminium, monoiodide

Synonyms: Q₁-CAY10779, Q₁-Lipid H, Q₁-LNP-102

MF: C₄₅H₉₀NO₅ • I

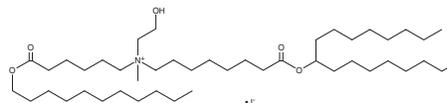
FW: 852.1

Purity: ≥98%

Supplied as: A 10 mg/ml solution in ethanol

Storage: -20°C

Stability: ≥1 year



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

Laboratory Procedures

Q₁-SM-102 (iodide) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as chloroform purged with an inert gas can be used. Q₁-SM-102 (iodide) is sparingly soluble (1-10 mg/ml) in chloroform.

Description

Q₁-SM-102 is a cationic quaternary ammonium lipid derivative of the ionizable cationic lipid SM-102 (Item No. 33474) 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.

Reference

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).

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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