

PRODUCT INFORMATION



1A7B13 (iodide)

Item No. 45654

Formal Name: N-methyl-N,N-bis(6-((2-octyldodecyl)oxy)-6-oxohexyl)dodecan-1-aminium, monoiodide

MF: $C_{65}H_{130}NO_4 \cdot I$

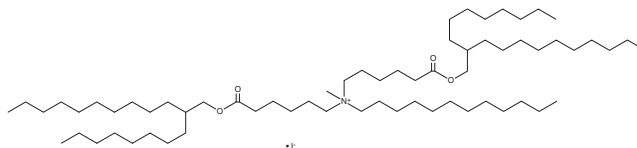
FW: 1,116.7

Purity: $\geq 98\%$

Supplied as: A 10 mg/ml solution in methyl acetate

Storage: $-20^{\circ}C$

Stability: ≥ 4 years



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

Laboratory Procedures

1A7B13 (iodide) is supplied as a solution in methyl acetate. A stock solution may be made by dissolving the 1A7B13 (iodide) in the solvent of choice, which should be purged with an inert gas. 1A7B13 (iodide) is slightly soluble (0.1-1 mg/ml) in a 2:1 solution of chloroform:methanol.

Description

1A7B13 is a lung-targeted cationic lipid that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA, single-guide RNA (sgRNA), and siRNA *in vivo*.¹ LNPs containing 1A7B13 accumulate in the lung to a greater extent than those containing DOTAP (Item Nos. 15110 | 38905). LNPs containing 1A7B13 and encapsulating IL-10 mRNA reduce acute weight loss and interstitial congestion and inflammation and increase bronchoalveolar lavage fluid (BALF) levels of IL-10 in a mouse model of LPS-induced acute lung injury.

Reference

1. Tian, Z., Wang, X., Chatterjee, S., *et al.* 'Tripod-like' lung-targeting (LuT) lipids for highly efficient and selective LNPs for gene delivery and editing. *Nat. Biomed. Eng.* (2026).

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.

WARRANTY AND LIMITATION OF REMEDY

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