

PRODUCT INFORMATION



Lipid I97

Item No. 42607

CAS Registry No.: 3046404-81-0
Formal Name: O,O'-((R)-4-((3-(2-(dimethylamino)ethoxy)-3-oxopropyl)amino)-2,2-dimethyl-4-oxobutane-1,3-diyl) bis(2-hexyldecyl) diglutarate

Synonym: I97

MF: C₅₅H₁₀₂N₂O₁₁

FW: 967.4

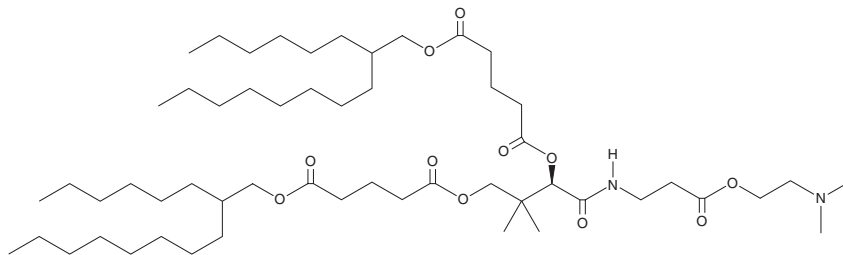
Purity: ≥98%

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

Storage: -20°C

Stability: ≥1 year

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



Description

Lipid I97 is a vitamin B₅-derived ionizable cationic lipid ($pK_a = 6.23$) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vivo*.¹ LNPs containing lipid I97 and encapsulating luciferase mRNA selectively accumulate in the spleen and lymph nodes in mice. LNPs containing lipid I97 and encapsulating mRNA encoding hemagglutinin A induce IgG1 and IgG2 production in mice.

Reference

1. Yoo, S., Faisal, M., Bae, S.-H., *et al.* Novel less toxic, lymphoid tissue-targeted lipid nanoparticles containing a vitamin B5-derived ionizable lipid for mRNA vaccine delivery. *Adv. Healthc. Mater.* e2403366 (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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