

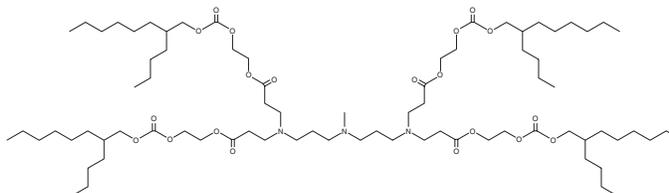
PRODUCT INFORMATION



Lipid 88

Item No. 40493

CAS Registry No.: 2982842-99-7
Formal Name: tetrakis(2-(((2-butylloctyl)oxy)carbonyl)oxy)ethyl 3,3',3'',3'''-(((methylazanediy) bis(propane-3,1-diyl))bis(azanetriyl)) tetrapropionate
MF: C₇₉H₁₄₇N₃O₂₀
FW: 1,459.0
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.

Laboratory Procedures

Lipid 88 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice, which should be purged with an inert gas. Lipid 88 is sparingly soluble (1-10 mg/ml) in ethanol and chloroform.

Description

Lipid 88 is an ionizable cationic lipid that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vivo*.¹ LNPs containing lipid 88 and encapsulating mRNA encoding severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike glycoprotein increase anti-spike glycoprotein IgG titers in bronchoalveolar lavage fluid (BALF), as well as increase the percentage of CD8⁺, CD8⁺CD44⁺, CD4⁺, and CD4⁺CD44⁺ T cells in the lungs and spleen, in mice after two doses three weeks apart. LNPs containing lipid 88 and encapsulating mRNA encoding SARS-CoV-2 spike glycoprotein inhibit reductions in body weight, increase serum levels of anti-spike glycoprotein IgG and IgA titers, and reduce lung and nasal wash viral titers in a hamster model of SARS-CoV-2 Omicron BQ.1 subvariant infection.

Reference

1. Ye, Z., Bonam, S.R., McKay, L.G.A., *et al.* Monovalent SARS-COV-2 mRNA vaccine using optimal UTRs and LNPs is highly immunogenic and broadly protective against Omicron variants. *Proc. Natl. Acad. Sci. USA* **120**(52), e2311752120 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/12/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM