

PRODUCT INFORMATION



Lipid TG4C

Item No. 42941

CAS Registry No.: 3028336-07-1

Formal Name: hexanedioic acid,
1,1'-[2-[4-(dimethylamino)-1-oxobutoxy]-
1,3-propanediyl] 6,6'-bis(1-octylnonyl)
ester

MF: $C_{55}H_{103}NO_{10}$

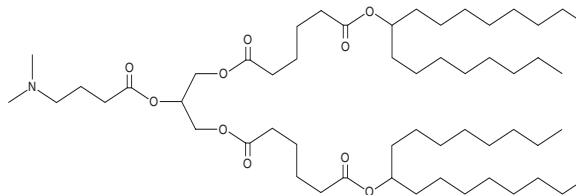
FW: 938.4

Purity: $\geq 95\%$

Supplied as: A 10 mg/ml solution in ethanol

Storage: -20°C

Stability: ≥ 3 years



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

Description

Lipid TG4C is an ionizable cationic glycerolipid ($pK_a = 6.71$) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vivo*.¹ LNPs containing lipid TG4C and encapsulating mRNA encoding human erythropoietin (EPO) increase serum EPO levels in mice. Nebulized administration of LNPs containing lipid TG4C and encapsulating mRNA encoding human hepatocyte growth factor (HGF) reduces bronchoalveolar lavage fluid (BALF) levels of IL-1 β , IL-6, and Tnf- α in a mouse model of pulmonary emphysema induced by porcine pancreatic elastase.

Reference

1. Huang, K., Liu, Y., Miao, H., *et al.* Nebulized lipid nanoparticles based on degradable ionizable glycerolipid for potent pulmonary mRNA delivery. *ACS Nano* **19**(1), 1128-1139 (2025).

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, 11/24/2025

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