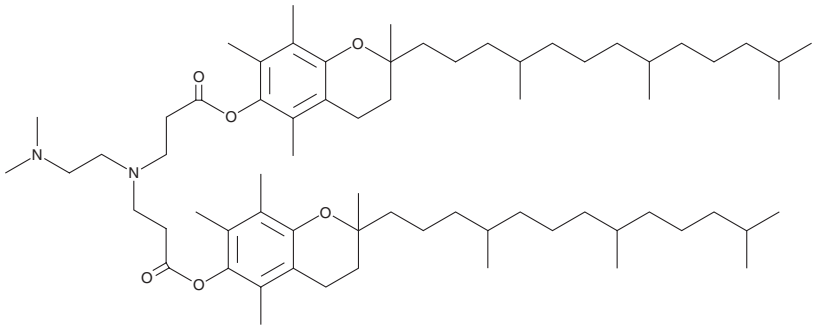
PRODUCT INFORMATION

Lipid VN_2C_1

Item No. 44032

CAS Registry No.: 3035464-96-8
Formal Name: *bis*(2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)chroman-6-yl) 3,3'-((2-(dimethylamino)ethyl) azanediyl)dipropionate
MF: $C_{68}H_{116}N_2O_6$
FW: 1,057.7
Purity: ≥95%
Supplied as: A 10 mg/ml solution in ethanol
Storage: -20°C
Stability: ≥4 years



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

Description

Lipid VN_2C_1 is a vitamin E-based ionizable cationic lipid that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vitro* and *in vivo*.[1] LNPs containing lipid VN_2C_1 and encapsulating mRNA encoding IL-12 increase IL-12 release in MC-38 colon cancer cells to a greater extent than those containing SM-102 (Item No. 33474). Lipid VN_2C_1-containing LNPs encapsulating IL-12 mRNA decrease the volumes of primary tumors and reduce the weights of liver and peritoneal metastases in an MC-38 murine colon cancer model. These LNPs also decrease tumor volume and increase intratumoral immune cell infiltration in the same model when administered in combination with an anti-programmed cell death 1 ligand 1 (anti-PD-L1) antibody.

Reference

1. Cui, K., Fangming, Z., Shi, T., *et al*. Iterative screening of vitamin E-based functional lipid nanoparticles for mRNA delivery. *ACS Nano* **19(22)**, 20672-20692 (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
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