

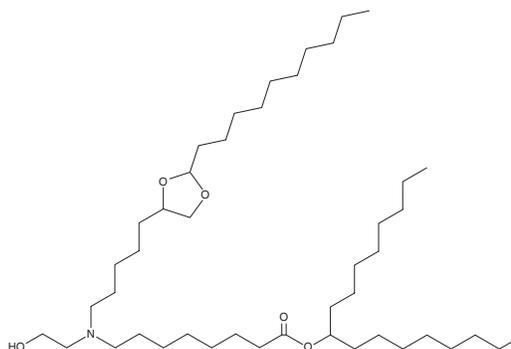
PRODUCT INFORMATION



YK-712

Item No. 43736

CAS Registry No.: 2965384-81-8
Formal Name: 8-[[5-(2-decyl-1,3-dioxolan-4-yl)pentyl][(2-hydroxyethyl)amino]octanoic acid, 1-octylnonyl ester
MF: C₄₅H₈₉NO₅
FW: 724.2
Purity: ≥98%
Supplied as: A 10 mg/ml solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Description

YK-712 is an 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 Intramuscular administration of LNPs containing YK-712 and encapsulating mRNA encoding luciferase accumulate primarily in the liver in mice, while those containing both YK-712 and an adjuvant lipid, YK-TLR-001, which contains the toll-like receptor 7/8 (TLR7/8) dual agonist AXC-715 (YK-712-TLR-LNPs), accumulate primarily in the spleen. Intramuscular administration of YK-712-TLR-LNPs encapsulating mRNA encoding ovalbumin (OVA) promotes the maturation of antigen-presenting cells (APCs), induces activation of T cells, and increases plasma levels of IFN- γ in mice. Intramuscular administration of YK-712-TLR-LNPs also reduces tumor growth and increases survival in a murine model of melanoma using OVA-expressing B16/F10 cells.

Reference

1. Zhang, H., Y., Z., J., M., *et al.* Cyclic acetal-based lipid nanoparticles deliver mRNA *in vivo* for tumor immunotherapy. *ACS Appl. Bio. Mater.* **8**(5), 3888-3898 (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.

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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