

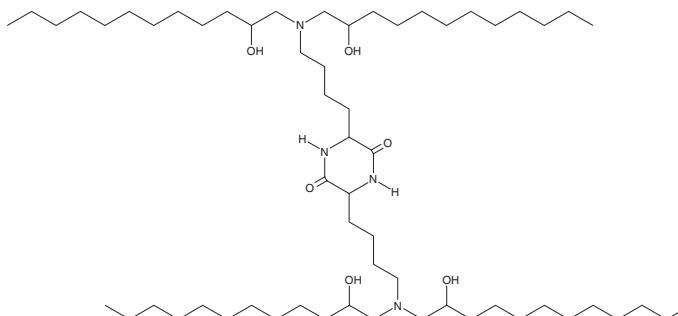
PRODUCT INFORMATION



cKK-E12

Item No. 36700

CAS Registry No.: 1432494-65-9
Formal Name: 3,6-bis[4-[bis(2-hydroxydodecyl) amino]butyl]-2,5-piperazinedione
MF: $C_{60}H_{120}N_4O_6$
FW: 993.6
Purity: $\geq 95\%$
Supplied as: A 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.

Laboratory Procedures

cKK-E12 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. cKK-E12 is soluble in chloroform and methanol.

Description

cKK-E12 is an ionizable lipomer that has been used in combination with other lipids in the formation of lipid nanoparticles (LNPs) for the delivery of mRNA.^{1,2} LNPs containing cKK-E12, in combination with L-319 (Item No. 35051), and encapsulating varicella-zoster virus (VZV) mRNA encoding glycoprotein E (gE) increase the lymph node and spleen levels of CD11c⁺CD80⁺ and CD11c⁺CD86⁺ cells and total serum IgG titers in mice, as well as decrease the number of VZV-induced rashes and the epithelial levels of VZV DNA in a guinea pig model of VZV-induced shingles.²

References

1. Hatit, M.Z.C., Lokugamage, M.P., Dobrowolski, C.N., *et al.* Species-dependent in vivo mRNA delivery and cellular responses to nanoparticles. *Nat. Nanotechnol.* **17**(3), 310-318 (2022).
2. Cheng, X., Liu, S., Sun, J., *et al.* A synergistic lipid nanoparticle encapsulating mRNA shingles vaccine induces potent immune responses and protects guinea pigs from viral challenges. *Adv. Mat.* **36**(13), e2310886 (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.

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