

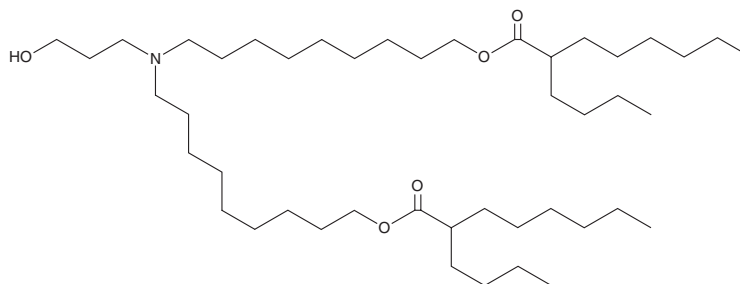
PRODUCT INFORMATION



Lipid III-45

Item No. 39243

CAS Registry No.: 2096984-25-5
Formal Name: 2-butyl-octanoic acid, 1,1'-[[[(3-hydroxypropyl)imino]di-9,1-nonanediy] ester
Synonyms: ALC-0366, Cationic Lipid A
MF: C₄₅H₈₉NO₅
FW: 724.2
Purity: ≥98%
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 III-45 is an ionizable cationic lipid ($pK_a = 6.25$).¹ It has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vivo*.¹⁻³ LNPs containing lipid III-45 and encapsulating a luciferase mRNA reporter accumulate in liver and adipose tissue in mice.^{1,2} LNPs containing lipid III-45 have been used to deliver an mRNA sequence encoding an antibody targeting the tumor-associated antigen and tight junction integral protein claudin-18 isoform 2 (claudin-18.2) to mice and reduce tumor volume in an MDA-MB-231 mouse xenograft model.³

References

1. Ansell, S.M. and Du, X. Lipids and lipid nanoparticle formulations for delivery of nucleic acids. *Acuitas Therapeutics, Inc. US 10,166,298 B2*, (2019).
2. Lin, J.C.P. and Tam, Y. Lipid delivery of therapeutic agents to adipose tissue. *Acuitas Therapeutics, Inc. WO2018/191719A1*, (2018).
3. Sahin, U., Lindemann, C., Diekmann, J., *et al.* RNA compositions targeting claudin-18.2. *Biontech SE. WO2021/198157A1*, (2021).

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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