

Product Data Sheet

Product Name: Lipid III-45

Cat. No.: GC91124

Chemical Properties

Cas. No. 2096984-25-5

Formula $C_{45}H_{89}NO_5$

M.Wt 724.2

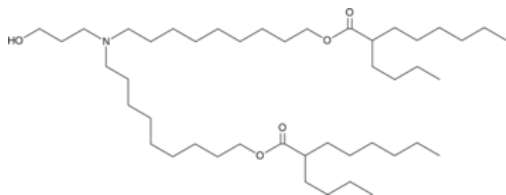
Solubility Ethanol: 10 mg/ml

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

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*.^{1,2,3} 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

Caution: Product has not been fully validated for medical applications. For research use only.

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