

PRODUCT INFORMATION



FS01

Item No. 45431

Formal Name: 2-butylphenethyl
8-((8-(heptadecan-9-yloxy)-8-oxooctyl)(3-((2-(methylamino)-3,4-dioxocyclobut-1-en-1-yl)amino)propyl)amino)octanoate

MF: C₅₃H₉₁N₃O₆

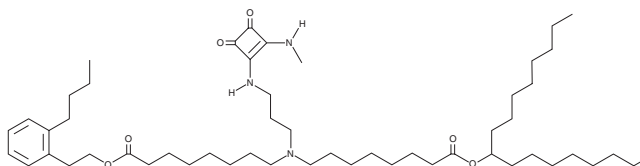
FW: 866.3

Purity: ≥98%

Supplied as: A 50 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

FS01 is an ionizable cationic lipid (pKa = 6.45) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vivo*.¹ FS01 increases the stability of mRNA, and LNPs containing FS01 have an encapsulation efficiency of >97% and a particle size smaller than that of LNPs containing SM-102 (Item No. 33474), DLin-MC3-DMA (Item No. 34364), or ALC-0315 (Item No. 34337). LNPs containing FS01 and encapsulating varicella-zoster virus (VZV) glycoprotein E mRNA elicit greater glycoprotein E IgG and T cell responses than DLin-MC3-DMA-containing LNPs in mice.

Reference

1. Guo, K., Bu, L., Du, J., *et al.* A novel ionizable lipid with comprehensive improvements in transfection potency, immune profile and safety of lipid nanoparticle. *J. Control Release* **386:114126**, (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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