PRODUCT INFORMATION



31hP

Item No. 42706

Formal Name:	undecan-3-yl 4-(1-((2-(diethylamino) ethyl)(methyl)amino)-7-(heptadecan-9- yloxy)-7-oxohept-2-yn-1-yl)benzoate	
MF:	$C_{A9}H_{84}N_2O_4$	
FW:	767.2	
Purity:	≥95%	
Supplied as:	A solution in ethanol	0
Storage:	-20°C	
Stability:	≥1 year	
Information represent	nts the product specifications. Batch specific analytical results are provide	ed on each certificate of analysis.

Description

31hP is an ionizable cationic lipid (pK_{2} = 6.25) that has been used in the generation of lipid nanoparticles (LNPs) for the delivery of mRNA and single-guide RNA (sgRNA) in vitro and in vivo.¹ Intravenous administration of LNPs containing 31hP and encapsulating mRNA encoding Cas9 and sgRNA targeting transthyretin (TTR) reduce serum TTR levels in mice to a greater extent than those containing DLin-MC3-DMA (Item No. 34364). Intramuscular administration of LNPs containing 31hP and encapsulating mRNA encoding severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike glycoprotein increases serum antibody titers in mice to a greater extent than those containing SM-102 (Item No. 33474).

Reference

1. Han, X., Alameh, M.-G., Xu, Y., et al. Optimization of the activity and biodegradability of ionizable lipids for mRNA delivery via directed chemical evolution. Nat. Biomed. Eng. 8(11), 1412-1424 (2024).

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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