

PRODUCT INFORMATION



2N12B

Item No. 41094

CAS Registry No.: 3067164-96-6
Formal Name: bis(2-(octyldisulfaneyl)ethyl)
3,3'-((2-(methyl(3-(2-(octyldisulfaneyl)
ethoxy)-3-oxopropyl)amino)ethyl)
azanediyloxy)dipropionate

MF: C₄₂H₈₂N₂O₆S₆

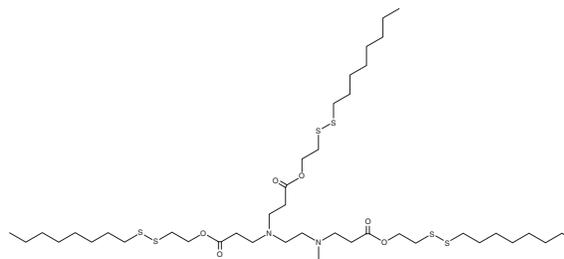
FW: 903.5

Purity: ≥95%

Supplied as: A 50 mg/ml solution in methyl acetate

Storage: -20°C

Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2N12B is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol and DMSO purged with an inert gas can be used. 2N12B is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

2N12B is a disulfide bond-containing ionizable cationic lipid ($pK_a = 6.5$) that has been used in the generation of lipid nanoparticles (LNPs) for siRNA delivery *in vitro* and *in vivo*.¹ LNPs containing 2N12B and encapsulating siRNA targeting VEGFA mRNA reduce VEGFA levels in ARPE-19 retinal pigment cells, as well as reduce migration of human umbilical vein endothelial cells (HUVECs) in a wound healing assay. LNPs containing 2N12B and encapsulating siRNA targeting Vegfa mRNA reduce Vegfa levels in isolated mouse retina, as well as inhibit retinal angiogenesis and decrease fundus vessel leakage, in a mouse model of oxygen-induced retinopathy.

Reference

1. Cao, X., Su, L., and Chen, H. A potent bio-reducible ionizable lipid nanoparticle enables siRNA delivery for retinal neovascularization inhibition. *Eur. J. Pharm. Biopharm.* **199**, 114296 (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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