

Product Data Sheet

Product Name: 2N12B
Cat. No.: GC91824

Chemical Properties

Cas. No. N/A

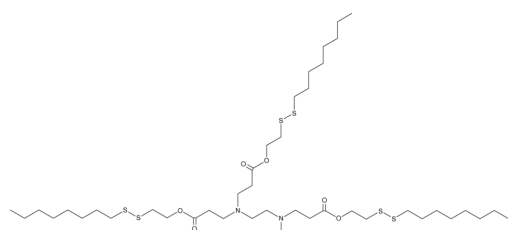
Formula $C_{42}H_{82}N_2O_6S_6$ M.Wt 903.5

Solubility DMSO: Soluble: ≥ 10 mg/ml, Ethanol: Slightly Soluble: 0.1-1 mg/ml
Storage -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

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.

References:

[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.* 19914296(2024).

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

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