

Product Data Sheet

Product Name: DOSEH (chloride)

Cat. No.: GC92041

Chemical Properties

Cas. No.

Chemical Name (2-hydroxyethyl)dioctadecylsulfonium, monochloride

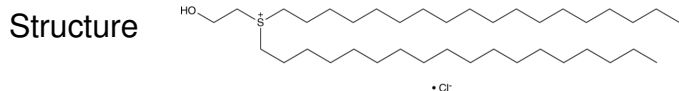
SMILES CCCCCCCCCCCCCCCCCCCC[S+](CCO)CCCCCCCCCCCCCCCCCCCC.[Cl-]

Formula $C_{38}H_{79}OS \cdot Cl$ M.Wt 619.6

Solubility Acetonitrile: Slightly soluble: 0.1-1 mg/ml, Chloroform: 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.



Background

DOSEH is a cationic sulfonium lipid that has been used in the generation of sulfonium lipid nanoparticles (sLNPs) for the delivery of mRNA *in vivo*.¹ LNPs containing DOSEH and encapsulating an mRNA reporter accumulate primarily in the lungs after intravenous administration in mice. DOSEH-containing LNPs encapsulating Cre mRNA induce the expression of tdTomato in the lungs of Ai14 mice engineered to express tdTomato upon Cre-mediated recombination.

References:

[1]. Popoola, D.O., Cao, Z., Men, Y., et al. Lung-specific mRNA delivery enabled by sulfonium lipid nanoparticles. *Nano Lett.* 24(26):8080-8088 (2024).

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

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