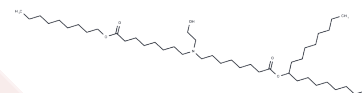


Lipid 5

Chemical Properties

CAS No. :	2089251-33-0
Formula:	C44H87NO5
Molecular Weight:	710.182
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Lipid 5, an amino lipid compound, demonstrates proficient mRNA delivery in rodent and primate models, with favorable pharmacokinetics and minimal toxicity.
Targets(IC50)	Others,Liposome
In vitro	Substituting the linoleic tail for a primary ester-containing lipid tail (Lipid 5) enhances expression and optimizes tissue clearance. Metabolite identification studies on Lipid 5 revealed that the initial metabolic step involves the hydrolysis of the primary ester[1].
In vivo	The clearance of Lipid 5 and MC3 from various mouse tissues was evaluated following the administration of 0.05 mg/kg mRNA on days 1, 8, and 15 in CD-1 female mice. The liver and spleen exhibited the highest concentrations of Lipid 5, albeit at significantly lower levels than those of MC3. Detection of Lipid 5 also occurred in the plasma, lung, and kidney, but not in the heart[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4081 mL	7.0405 mL	14.0809 mL
5 mM	0.2816 mL	1.4081 mL	2.8162 mL
10 mM	0.1408 mL	0.704 mL	1.4081 mL
50 mM	0.0282 mL	0.1408 mL	0.2816 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Staci Sabnis, et al. A Novel Amino Lipid Series for mRNA Delivery: Improved Endosomal Escape and Sustained Pharmacology and Safety in Non-human Primates. Mol Ther. 2018 Jun 6;26(6):1509-1519.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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