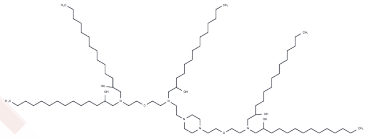
Data Sheet (Cat.No.T84756)

C14-4

Chemical Properties



CAS No. :	2639634-80-1
Formula:	C84H173N5O7
Molecular Weight:	1365.3
Storage:	The compound is unstable in solution. Please use soon 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	C14-4 (C14-494) is an ionizable lipid nanoparticle used for delivering CAR mRNA to primary human T cells.
Targets(IC50)	Liposome
In vitro	C14-4 (30 ng,48 h) promoted luciferase expression in Jurkat cells of primary human T cells by enhancing mRNA delivery with little cytotoxicity. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (58.6 mM),Sonication is recommended. The compound is unstable in solution. Please use soon. Ethanol: 80 mg/mL (58.6 mM),Sonication is recommended. The compound is unstable in solution. Please use soon. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (2.42 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.7324 mL	3.6622 mL	7.3244 mL
5 mM	0.1465 mL	0.7324 mL	1.4649 mL
10 mM	0.0732 mL	0.3662 mL	0.7324 mL
50 mM	0.0146 mL	0.0732 mL	0.1465 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

Billingsley MM, et al. Ionizable Lipid Nanoparticle-Mediated mRNA Delivery for Human CAR T Cell Engineering. Nano Lett. 2020 Mar 11;20(3):1578-1589.