ALC-0315

Cat. No.: HY-138170

CAS No.: 2036272-55-4

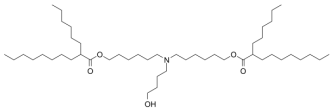
Molecular Formula: $C_{48}H_{95}NO_5$

Molecular Weight: 766.27

Target: SARS-CoV

Pathway: Anti-infection

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 100 mg/mL (130.50 mM; Need ultrasonic)
DMSO : 100 mg/mL (130.50 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3050 mL	6.5251 mL	13.0502 mL
	5 mM	0.2610 mL	1.3050 mL	2.6100 mL
	10 mM	0.1305 mL	0.6525 mL	1.3050 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (3.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (3.26 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ALC-0315 is an ionisable aminolipid that is responsible for mRNA compaction and aids mRNA cellular delivery and its cytoplasmic release through suspected endosomal destabilization. ALC-0315 can be used to form lipid nanoparticle (LNP) delivery vehicles. Lipid-Nanoparticles have been used in the research of mRNA COVID-19 vaccine[1].

In Vitro

ALC-0315 is used to form lipid nanoparticle for the research of vaccination[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Moghimi SM. Allergic Reactions and Anaphylaxis to LNP-Based COVID-19 Vaccines. Mol Ther. 2021;29(3):898-900.

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