DLinDMA

Cat. No.: HY-112757

CAS No.: 871258-12-7

Molecular Formula: $C_{41}H_{77}NO_2$

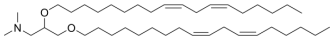
Molecular Weight: 616.06

Target: Liposome

Pathway: Metabolic Enzyme/Protease

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (162.32 mM; Need ultrasonic)

Ethanol : ≥ 100 mg/mL (162.32 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.6232 mL	8.1161 mL	16.2322 mL
5 mM	0.3246 mL	1.6232 mL	3.2464 mL
10 mM	0.1623 mL	0.8116 mL	1.6232 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 (4.06 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.06 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.06 mM); Clear solution
4. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.06 mM); Clear solution
5. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (4.06 mM); Suspended solution; Need ultrasonic
6. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.06 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	DLinDMA, a ionizable cationic lipid, is a key lipid component of stable nucleic acid lipid particles (SNALPs) as a benchmark. DLinDMA is used for siRNA delivery[1].
In Vitro	The structure of DLinDMA can be divided into three main regions: the hydrocarbon chains, the linker and the headgroup[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	DLinDMA has virtually indistinguishable blood pharmacokinetic profiles in mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nanomedicine. 2021 May 7.

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REFERENCES

[1]. Semple SC, et al. Rational design of cationic lipids for siRNA delivery. Nat Biotechnol. 2010 Feb;28(2):172-6.

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