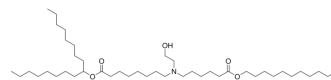


SM-102

Cat. No.:	HY-134541		
CAS No.:	2089251-47-6		
Molecular Formula:	C ₄₄ H ₈₇ NO ₅		
Molecular Weight:	710.17		
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

Ethanol : ≥ 100 mg/mL (140.81 mM)
 DMSO : 100 mg/mL (140.81 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.4081 mL	7.0406 mL	14.0811 mL
	5 mM	0.2816 mL	1.4081 mL	2.8162 mL
	10 mM	0.1408 mL	0.7041 mL	1.4081 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (3.52 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (3.52 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SM-102 is an ionizable amino lipid that can be used for the formation of lipid nanoparticles (LNPs)^[1]. SM-102 has the potential for development of lipid nanoparticles for delivery of mRNA-based vaccines^[2].

CUSTOMER VALIDATION

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- Nat Nanotechnol. 2023 Jun 26.
 - J Biomed Sci. 2023 Jun 28;30(1):46.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. 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.

[2]. Without these lipid shells, there would be no mRNA vaccines for COVID-19

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA