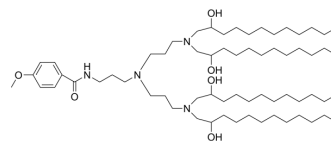


AA-T3A-C12

Cat. No.:	HY-148859		
CAS No.:	2938207-23-7		
Molecular Formula:	C ₆₅ H ₁₂₆ N ₄ O ₆		
Molecular Weight:	1059.72		
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 (94.36 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	0.9436 mL	4.7182 mL	9.4365 mL	
		5 mM	0.1887 mL	0.9436 mL	1.8873 mL	
10 mM		0.0944 mL	0.4718 mL	0.9436 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 (2.36 mM); Clear solution; Need ultrasonic 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (2.36 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	AA-T3A-C12 is an anisamide ligand-tethered lipidoid (AA-lipidoid). AA-T3A-C12 mediates great RNA delivery and transfection of activated fibroblasts ^[1] .
In Vitro	AA-T3A-C12/siRNA LNP can enhance uptake of siRNA LNP by TGF-β-stimulated 3T3 fibroblasts ^[1] . AA-T3A-C12 LNP enables robust gene knockdown in activated fibroblasts ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AA-T3A-C12/siHSP47 LNP (siRNA dose of 5 µg/mouse, i.v., twice weekly for 2 weeks) significantly down-regulates HSP47 expression in fibrotic mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	CCl ₄ -induced fibrotic mice ^[1]
Dosage:	siRNA dose of 5 µg/mouse
Administration:	i.v., twice weekly for 2 weeks
Result:	led to a 65% knockdown of HSP47 (in liver) compared to PBS treatment.

REFERENCES

[1]. Han X, et al. Ligand-tethered lipid nanoparticles for targeted RNA delivery to treat liver fibrosis. Nat Commun. 2023 Jan 17;14(1):75.

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

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