



SZABO SCANDIC

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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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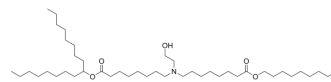
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Lipid 5

Cat. No.:	HY-138171		
CAS No.:	2089251-33-0		
Molecular Formula:	C ₄₄ H ₈₇ NO ₅		
Molecular Weight:	710.17		
Target:	Biochemical Assay Reagents		
Pathway:	Others		
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 (140.81 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	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	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (3.52 mM); Suspended solution; Need ultrasonic					
	2. 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					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (3.52 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Lipid 5 is an amino lipid that affords efficient mRNA delivery in rodent and primate models. Lipid 5 shows optimal pharmacokinetics and non-toxic side effects ^[1] .
In Vitro	Replacement of the linoleic tail with a primary ester-containing lipid tail (Lipid 5) provides increased expression and optimal tissue clearance. The metabolite identification studies with Lipid 5 indicated that hydrolysis of the primary ester is the first step in the metabolism of the lipid ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Clearance of Lipid 5 and MC3 from multiple mouse tissues is measured after dosing 0.05 mg/kg mRNA on days 1, 8, and 15 in CD-1 female mice. Liver and spleen have the highest levels of Lipid 5, however, significantly lower levels than MC3. Lipid 5 is detected in plasma, lung, and kidney, but not in heart^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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

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