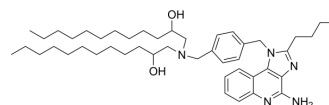


## C12-TLRa

Cat. No.:	HY-153879		
Molecular Formula:	C <sub>46</sub> H <sub>73</sub> N <sub>5</sub> O <sub>2</sub>		
Molecular Weight:	728.1		
Target:	Liposome		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 5 mg/mL (6.87 mM); ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.3734 mL	6.8672 mL	13.7344 mL
	5 mM	0.2747 mL	1.3734 mL	2.7469 mL
	10 mM	---	---	---

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: ≥ 0.5 mg/mL (0.69 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 0.5 mg/mL (0.69 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

C12-TLRa is an adjuvant lipidoid. C12-TLRa acts as a structural component of LNP to enhance mRNA delivery. C12-TLRa substitution can increase antigen-specific antibody responses and B cell responses of clinically relevant mRNA-LNP vaccines [1].

### REFERENCES

- [1]. Han X, et al. Adjuvant lipidoid-substituted lipid nanoparticles augment the immunogenicity of SARS-CoV-2 mRNA vaccines. Nat Nanotechnol. 2023 Jun 26.

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

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