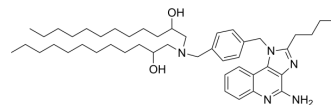


## C12-TLRa

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	<div><div>Solvent</div><div>Concentration</div></div>	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	1. 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					
	2. 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.

---

**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](mailto:tech@MedChemExpress.com)

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