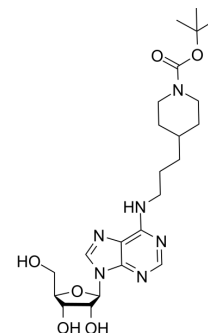


CamA-IN-1

Cat. No.:	HY-148578		
CAS No.:	2924055-46-7		
Molecular Formula:	C ₂₃ H ₃₆ N ₆ O ₆		
Molecular Weight:	492.57		
Target:	Bacterial		
Pathway:	Anti-infection		
Storage:	Powder	-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 (203.02 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		2.0302 mL	10.1508 mL	20.3017 mL
		5 mM		0.4060 mL	2.0302 mL	4.0603 mL
10 mM			0.2030 mL	1.0151 mL	2.0302 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (5.08 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.08 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (5.08 mM); Clear solution; Need ultrasonic 					

BIOLOGICAL ACTIVITY

Description	CamA-IN-1 is a <i>Clostridioides difficile</i> -specific DNA adenine methyltransferase (CamA) inhibitor. CamA-IN-1 has inhibitory for CamA with IC ₅₀ and K _d values of 0.4 μM and 0.2 μM, respectively. CamA-IN-1 can be used for the research of <i>Clostridioides difficile</i> infections (CDI) ^[1] .
IC₅₀ & Target	IC ₅₀ : 0.4 μM (CamA) ^[1] K _d : 0.2 μM (CamA) ^[1]

In Vitro

CamA-IN-1 (compound 39) has inhibitory for CamA with IC_{50} and K_d values of 0.4 μ M and 0.2 μ M, respectively^[1]. CamA-IN-1 is selective for CamA over closely related bacterial and mammalian DNA and RNA MTases, protein lysine and arginine MTases, and human adenosine receptors^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jujun Zhou, et al. Systematic Design of Adenosine Analogs as Inhibitors of a Clostridioides difficile- Specific DNA Adenine Methyltransferase Required for Normal Sporulation and Persistence. J Med Chem. 2023 Jan 12;66(1):934-950.

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

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