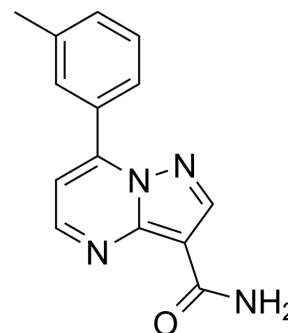


CU-CPT-8m

Cat. No.:	HY-112050		
CAS No.:	125079-83-6		
Molecular Formula:	C ₁₄ H ₁₂ N ₄ O		
Molecular Weight:	252.27		
Target:	Toll-like Receptor (TLR)		
Pathway:	Immunology/Inflammation		
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 : 12.5 mg/mL (49.55 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.9640 mL	19.8200 mL	39.6401 mL
		5 mM	0.7928 mL	3.9640 mL	7.9280 mL
10 mM		0.3964 mL	1.9820 mL	3.9640 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 (9.91 mM); Suspended solution; Need ultrasonic and warming Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1.25 mg/mL (4.96 mM); Clear solution; Need ultrasonic and warming Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (4.96 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	CU-CPT-8m is a specific TLR8 antagonist, with an IC ₅₀ of 67 nM.
IC ₅₀ & Target	TLR8 67 nM (IC ₅₀)
In Vitro	CU-CPT-8m is a specific TLR8 antagonist, with an IC ₅₀ of 67±10 nM and negligible cytotoxicity. The K _d value of CU-CPT-8m is determined to be 220 nM. CU-CPT-8m only reduces the proinflammatory response in the TLR8-overexpressing cells strongly

supports that CU-CPT-8m directly recognizes TLR8 in cells. It is particularly notable that TLR7 signaling is not affected at concentrations up to 75 μ M. TLR7 and TLR8 are closely related and share many common ligands. Treatment of 1 μ M CU-CPT-8m completely abolishes the elevation of TNF- α and IL-8 mRNA levels induced by R848. CU-CPT-8m inhibits R848-induced TNF- α production in the differentiated THP-1 monocytes cells in a dose-dependent manner with an IC₅₀ of 90 \pm 10 nM, which is in good agreement with its IC₅₀ value determined in HEK-Blue TLR8 cells^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Infect Immun. 2019 Dec 17;88(1):e00697-19.

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REFERENCES

[1]. Zhang S, et al. Small-molecule inhibition of TLR8 through stabilization of its resting state. Nat Chem Biol. 2018 Jan;14(1):58-64.

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

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