JH-X-119-01 hydrochloride

MedChemExpress

®

Cat. No.:	HY-103017			
CAS No.:	2591344-30-6		0	
Molecular Formula:	C ₂₅ H ₂₁ ClN ₆ O ₃			
Molecular Weight:	488.93			\rightarrow
Target:	IRAK	HN ⊨O	0	N N
Pathway:	Immunology/Inflammation		HCI	
Storage:	4°C, sealed storage, away from moisture			
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)			

SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (102.26 mM; Need ultrasonic) H ₂ O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	2.0453 mL	10.2264 mL	20.4528 mL
		5 mM	0.4091 mL	2.0453 mL	4.0906 mL
		10 mM	0.2045 mL	1.0226 mL	2.0453 mL
	Please refer to the solubility information to select the appropriate solvent.				
In Vivo	 Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.11 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.11 mM); Clear solution 				

BIOLOGICAL ACTIV			
Description	JH-X-119-01 hydrochloride is a potent and selective interleukin-1 receptor-associated kinases 1 (IRAK1) inhibitor. JH-X-119- 01 hydrochloride ameliorates LPS-induced sepsis in mice ^[1] .		
IC ₅₀ & Target	IRAK1		
In Vitro	Jh-X-119-01 (10 μM) decreases phosphorylation of NF-κB and mRNA levels of IL-6 and TNFα in LPS-treated macrophages in vitro. Jh-X-119-01 selectively inhibits IRAK1 phosphorylation ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis ^[1]		

	Cell Line:	RAW 264.7 cells and THP-1 cells		
	Concentration:	10 μΜ		
	Incubation Time:	15 minutes		
	Result:	Decreased LPS (100 ng/mL)-induced phosphorylation of I $\kappa B\alpha$ and NF- κB -P65.		
In Vivo	Jh-X-119-01 improves s at the dose of 5 mg/kg l MCE has not independe	Jh-X-119-01 improves survival and decreases immunopathies of LPS-challenged mice. Jh-X-119-01 increases survival of mice at the dose of 5 mg/kg body weight. Survival is further improved when the dose is increased to 10 mg/kg ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
	MCE has not independe	ently confirmed the accuracy of these methods. They are for reference only.		
	Animal Model:	C57BL/6 (20-22 g, male) mice ^[1]		
	Dosage:	5 mg/kg and 10 mg/kg		
	Administration:	Intraperitoneally injected; 5 days		
	Result:	Protected mice from LPS (20 mg/kg)-induced sepsis. Survival at day 5 was 13.3% in control group where septic mice were treated by vehicle, while the values were 37.5% and 56.3% for 5 mg/kg and 10 mg/kg.		

CUSTOMER VALIDATION

- JCI Insight. 2022 Jul 8;7(13):e149825.
- University of Louisville. 2023 May 24.

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REFERENCES

[1]. Bin Pan, et al. Selective inhibition of interleukin-1 receptor-associated kinase 1 ameliorates lipopolysaccharide-induced sepsis in mice. Int Immunopharmacol. 2020 Aug;85:106597.

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

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