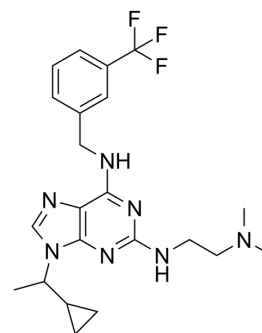


NCC007

Cat. No.:	HY-128677
CAS No.:	2342583-66-6
Molecular Formula:	C ₂₂ H ₂₈ F ₃ N ₇
Molecular Weight:	447.5
Target:	Casein Kinase
Pathway:	Cell Cycle/DNA Damage; Stem Cell/Wnt
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (279.33 mM; Need ultrasonic)				
		Solvent	Mass		
	Preparing Stock Solutions	Concentration	1 mg	5 mg	10 mg
		1 mM	2.2346 mL	11.1732 mL	22.3464 mL
		5 mM	0.4469 mL	2.2346 mL	4.4693 mL
10 mM		0.2235 mL	1.1173 mL	2.2346 mL	
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: ≥ 2.08 mg/mL (4.65 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.65 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.65 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	NCC007 is a dual casein kinase Iα (CKIα) and δ (CKIδ) inhibitor with IC ₅₀ s of 1.8 and 3.6 μM, respectively. NCC007 can be used in research of modulating mammalian circadian rhythms ^[1] .	
IC₅₀ & Target	CKIα 1.8 μM (IC ₅₀)	CKIδ 3.6 μM (IC ₅₀)
In Vivo	NCC007 (5-15 mM, infused into the lateral ventricle) controls circadian rhythms through CKI inhibition ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

Animal Model:	Adult C57BL/6J background male mice (8 weeks old) ^[1]
Dosage:	5, 15 mM
Administration:	Infused into the lateral ventricle, constant dark condition
Result:	Showed more period lengthening effect with 0.15 hours at 5 mM and 15 mM.

REFERENCES

[1]. Lee JW, et al. Chemical Control of Mammalian Circadian Behavior through Dual Inhibition of Casein Kinase I α and δ . J Med Chem. 2019 Feb 28;62(4):1989-1998.

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

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