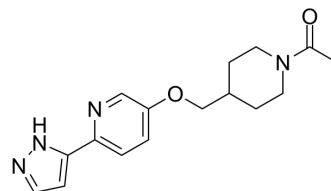


TP0472993

Cat. No.:	HY-151810
CAS No.:	2126874-77-7
Molecular Formula:	C ₁₆ H ₂₀ N ₄ O ₂
Molecular Weight:	300.36
Target:	Cytochrome P450
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (83.23 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.3293 mL	16.6467 mL	33.2934 mL
		5 mM	0.6659 mL	3.3293 mL	6.6587 mL
	10 mM	0.3329 mL	1.6647 mL	3.3293 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: ≥ 2.5 mg/mL (8.32 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.32 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	CYP4A11/CYP4F2-IN-2 is a potent and orally active dual inhibitor of cytochrome P450 (CYP) 4A11 and CYP4F2, with IC ₅₀ s of 140 nM and 40 nM, respectively. CYP4A11/CYP4F2-IN-2 has potential for the research of renal diseases ^[1] .	
IC ₅₀ & Target	CYP4A11 140 nM (IC ₅₀)	CYP4F2 40 nM (IC ₅₀)
In Vitro	CYP4A11/CYP4F2-IN-2 (compound 11c) inhibits 20-Hydroxyeicosatetraenoic acid (20-HETE) production from arachidonic acid in human renal microsomes, with an IC ₅₀ of 29 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	CYP4A11/CYP4F2-IN-2 (compound 11c) (0.03-1 mg/kg; a single p.o.) inhibits renal 20-HETE production of rats in a dose-	

dependent manner^[1].

CYP4A11/CYP4F2-IN-2 (0.5 mg/kg; i.v.) exhibits low CL (1430 mL/h/kg), moderate V_{dss} (763 mL/kg), and short $T_{1/2}$ (0.424 h) in mice^[1].

CYP4A11/CYP4F2-IN-2 (1 mg/kg; i.v.) exhibits low CL (226 mL/h/kg), moderate V_{dss} (839 mL/kg), and $T_{1/2}$ (3.01 h) in SD rats^[1].

CYP4A11/CYP4F2-IN-2 (1 mg/kg; p.o.) exhibits C_{max} (623 ng/mL), $T_{1/2}$ (3.03 h), and high bioavailability (97.7%) in SD rats^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kawamura M, et, al. Discovery of Novel Pyrazolopyridine Derivatives for 20-Hydroxyeicosatetraenoic Acid Synthase Inhibitors with Selective CYP4A11/4F2 Inhibition. J Med Chem. 2022 Nov 10;65(21):14599-14613.

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

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