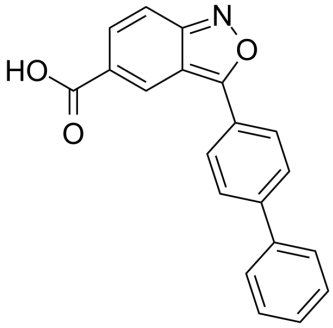
UNC7467



Cat. No.:	HY-150607		
CAS No.:	2922283-43-8		
Molecular Formula:	$C_{20}H_{13}NO_3$		
Molecular Weight:	315.32		
Target:	Others		
Pathway:	Others		
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 : 14.29 mg/mL (45.32 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1714 mL	15.8569 mL	31.7138 mL
	5 mM	0.6343 mL	3.1714 mL	6.3428 mL
	10 mM	0.3171 mL	1.5857 mL	3.1714 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

UNC7467 is a potent IP6K inhibitor with values of 4.9, 8.9 and 1320 nM for IP6K2, IP6K1 and IP6K6, respectively. UNC7467 reduces levels of inositol pyrophosphates. UNC7467 can be used for obesity research[1].

IC_{50} & Target

IC_{50}: 4.9 nM (IP6K2), 8.9 nM (IP6K1), 1320 nM (IP6K3)[1].

In Vitro

UNC7467 (2.5 μM; 3 hours; HCT116 cells) reduces levels of inositol pyrophosphates. UNC7467 reduces 5-InsP_7 levels by 81% and 5-InsP_8 levels by 63%[1].

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

In Vivo

UNC7467 (5 mg/kg; i.p.; daily, for 4 weeks; diet-induced obesity mice) ameliorated diet induced obesity, insulin resistance, and hepatic steatosis[1].

UNC7467 (1-5 mg/kg; i.v. and i.p.; diet-induced obesity mice) exhibits low clearance (13.7 (mL/min)/kg) and large AUC_{last} (6054 h•ng/mL for intra venous (i.v.) and 2527 h•ng/mL for intraperitoneal (i.p.)) in mice at 5 mg/kg dose[1].

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

Animal Model:	Diet-induced obesity (DIO) mice[1]
Dosage:	5 mg/kg
Administration:	Intraperitoneal injection; daily, for 4 weeks
Result:	Improved glycemic profiles, ameliorated hepatic steatosis, and reduced weight gain without altering food intake.

Animal Model:	Diet-induced obesity (DIO) mice[1]
Dosage:	5 mg/kg (Pharmacokinetic Analysis)
Administration:	Intravenous injection and intraperitoneal injection
Result:	

route	iv	ip
Dose (mg/kg)	5	5
AUC_{last} (h*ng/mL)	6054	2527
CL (mL/min/kg)	13.7	

REFERENCES

[1]. Zhou Y, et, al. Development of Novel IP6K Inhibitors for the Treatment of Obesity and Obesity-Induced Metabolic Dysfunctions. J Med Chem. 2022 May 12;65(9):6869-6887.

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