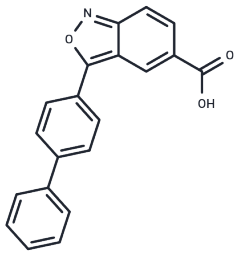
Data Sheet (Cat.No.T60164)

TargetMol

UNC7467

Chemical Properties



CAS No. : 2922283-43-8

Formula: C20H13NO3

Molecular Weight: 315.32

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	UNC7467 is a potent IP6K inhibitor with IC50 values of 4.9 nM for IP6K2, 8.9 nM for IP6K1, and 1320 nM for IP6K6. It effectively reduces inositol pyrophosphate levels without significantly affecting other inositol phosphates and is applicable for obesity research [1].
Targets(IC50)	Others
In vitro	UNC7467 (2.5 μM; 3 hours; HCT116 cells) reduces inositol pyrophosphate levels, decreasing 5-InsP7 by 81% and 5-InsP8 by 63% [1].
In vivo	UNC7467, administered at a dosage of 5 mg/kg through intraperitoneal injection daily for 4 weeks, significantly ameliorated diet-induced obesity, insulin resistance, and hepatic steatosis in mice with diet-induced obesity (DIO). This compound also demonstrated considerable pharmacokinetic benefits in DIO mice, presenting a low clearance rate of 13.7 (mL/min)/kg and yielding substantial area under the curve (AUC) values of 6054 h ng/mL for intravenous (i.v.) and 2527 h ng/mL for intraperitoneal (i.p.) routes at a 5 mg/kg dose. Furthermore, it improved glycemic profiles, mitigated hepatic steatosis, and curbed weight gain without affecting the mice's food intake. These findings underscore UNC7467's potential as an efficacious agent for treating diet-induced obesity and related metabolic disorders.

Solubility Information

Solubility	DMSO: 3.16 mg/mL (10.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0634 mL	0.3171 mL	0.6343 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.